**As confidentially submitted to the Securities and Exchange Commission on June 9, 2021 as Amendment No. 1 to the draft Registration Statement**

**Registration No. 333-**

**UNITED STATES**
**SECURITIES AND EXCHANGE COMMISSION**
**Washington, D.C. 20549**

**FORM S-1**
**REGISTRATION STATEMENT**
**UNDER**
**THE SECURITIES ACT OF 1933**

# ERASCA, INC.

(Exact name of registrant as specified in its charter)

| Delaware | 2834 | 83-1217027 |
|---|---|---|
| (State or other jurisdiction of incorporation or organization) | (Primary Standard Industrial Classification Code Number) | (I.R.S. Employer Identification No.) |

**10835 Road to the Cure, Suite 140**
**San Diego, CA 92121**
**(858) 465-6511**
**(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)**

**Jonathan E. Lim, M.D.**
**Chairman and Chief Executive Officer**
**Erasca, Inc.**
**10835 Road to the Cure, Suite 140**
**San Diego, CA 92121**
**(858) 465-6511**
**(Name, address, including zip code, and telephone number, including area code, of agent for service)**

***Copies to:***

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**Approximate date of commencement of proposed sale to the public:** As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

| | | | |
|---|---|---|---|
| Large accelerated filer | ☐ | Accelerated filer | ☐ |
| Non-accelerated filer | ☒ | Smaller reporting company | ☒ |
| | | Emerging growth company | ☒ |

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

## CALCULATION OF REGISTRATION FEE

| Title of Each Class of Securities To Be Registered | Proposed Maximum Aggregate Offering Price[(1)] | Amount of Registration Fee[(2)] |
|---|---|---|
| Common Stock, $0.0001 par value per share | $ | $ |

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended. Includes shares of common stock that the underwriters have the option to purchase.
(2) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price.

**The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.**

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**The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities, and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.**

**Subject to completion, dated , 2021**

**Preliminary prospectus**

***shares***

ERASCA

# *Common Stock*

This is the initial public offering of shares of common stock of Erasca, Inc. We are offering shares of our common stock to be sold in this offering. The initial public offering price is expected to be between $ and $ per share of common stock.

Prior to this offering, there has been no public market for our common stock. We have applied to list our common stock on the Nasdaq Global Select Market under the symbol “ERAS.”

We are an “emerging growth company” as defined under the federal securities laws and, as such, have elected to comply with certain reduced public company reporting requirements.

| | Per share | Total |
|---|---|---|
| Initial public offering price | $ | $ |
| Underwriting discounts and commissions[1] | $ | $ |
| Proceeds to Erasca, Inc., before expenses | $ | $ |

(1) See “Underwriting” for a description of the compensation payable to the underwriters.

We have granted the underwriters an option for a period of 30 days to purchase up to an additional shares of common stock.

**Investing in our common stock involves a high degree of risk. See “Risk factors” beginning on page 14.**

**Neither the Securities and Exchange Commission nor any other state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

The underwriters expect to deliver the shares of common stock to purchasers on , 2021.

**J.P. Morgan** **Morgan Stanley** **BofA Securities** **Evercore ISI** **Guggenheim Securities**

**, 2021**

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**Through and including , 2021 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This delivery is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.**

Neither we nor the underwriters have authorized anyone to provide you with information other than that contained in this prospectus or any free writing prospectus prepared by or on behalf of us or to which we have referred you. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We and the underwriters are offering to sell, and seeking offers to buy, common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus or any free writing prospectus is accurate only as of its date, regardless of its time of delivery or of any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside of the United States: we have not, and the underwriters have not, done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside of the United States.

# Prospectus summary

*This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus carefully, especially the section titled "Risk factors" and our consolidated financial statements and related notes included elsewhere in this prospectus, before making an investment decision. As used in this prospectus, unless the context otherwise requires, references to "we," "us," "our," "the Company" and "Erasca" refer to Erasca, Inc. and its subsidiaries.*

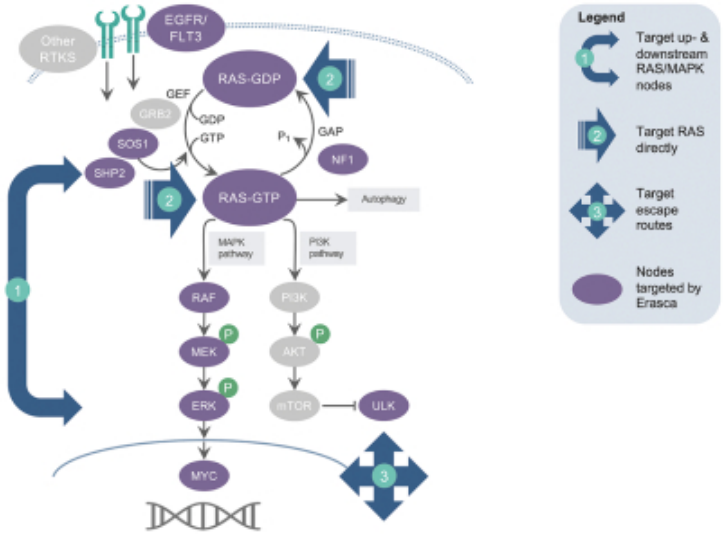
## Overview

At Erasca, our name is our mission: to erase cancer.

We are a clinical-stage precision oncology company singularly focused on discovering, developing, and commercializing therapies for patients with RAS/MAPK pathway-driven cancers. Molecular alterations in RAS, the most frequently mutated oncogene, and the MAPK pathway, one of the most frequently altered signaling pathways in cancer, account for approximately 5.5 million new cases of cancer worldwide per year. Our company was co-founded by leading pioneers in precision oncology and RAS targeting to create novel therapies and combination regimens designed to comprehensively shut down the RAS/MAPK pathway for the treatment of cancer. We have assembled what we believe to be the deepest, wholly-owned or controlled RAS/MAPK pathway-focused pipeline in the industry, comprising 11 modality-agnostic programs aligned with our three therapeutic strategies of: (1) targeting key upstream and downstream signaling nodes in the RAS/MAPK pathway; (2) targeting RAS directly; and (3) targeting escape routes that emerge in response to treatment. The target breadth and molecular diversity represented in our pipeline enable us to pursue a systematic, data-driven clinical development effort to identify single agent and combination approaches with the goal of prolonging survival in a wide range of patient populations with high unmet needs.

Our modality-agnostic approach aims to allow us to selectively and potently inhibit or degrade critical signaling nodes with small molecule therapeutics, large molecule therapeutics, and protein degraders. Our purpose-built pipeline includes two clinical-stage programs (ERK and SHP2 inhibitors, which together comprise our first, innovative MAPKlamp), two preclinical-stage programs (CNS-penetrant KRAS G12C and EGFR inhibitors), and seven discovery-stage programs targeting other key oncogenic drivers. We expect to have four product candidates in the clinic within the next six quarters, plus an additional IND filing every 12-18 months over the next five years. We believe our world-class team's capabilities and experience, further guided by our scientific advisory board, which includes the world's leading experts in the RAS/MAPK pathway, uniquely position us to achieve our bold mission of erasing cancer.

Of the approximately 5.5 million new patients diagnosed globally per year with cancers driven by RAS/MAPK pathway molecular alterations, over 90% have limited or no treatment options. While the RAS/MAPK pathway has been well characterized and validated based on multiple compounds approved or in development targeting discrete signaling nodes in the cascade, most of these compounds face resistance and tolerability challenges, highlighting the need for new approaches to target this pathway. We believe that to effectively shut down a pathway that signals as promiscuously as RAS/MAPK, a holistic approach must be taken to target not just individual nodes, but multiple nodes and cooperative mechanisms in parallel. As depicted in the following figure and described below, we are pursuing three therapeutic strategies that may be used in combination with the goal of comprehensively, and perhaps synergistically, shutting down the RAS/MAPK pathway.




1. ***Target upstream and downstream MAPK pathway nodes with single agents and combinations intended to clamp these oncogenic drivers (MAPKlamp).*** Our first strategy to erase cancer is a novel MAPKlamp that targets upstream and downstream nodes, initially SHP2 (ERAS-601) and ERK (ERAS-007), respectively, to shut down, or "clamp," the signaling of various oncogenic drivers, such as receptor tyrosine kinases (RTKs), NF1, RAS, RAF, and MEK alterations, trapped in between any nodes involving this pathway. With our MAPKlamp approach, we hope to induce tumor regression in RAS/MAPK pathway-driven cancers, while also blocking their main escape routes that lead to tumor resistance. We are also discovering and developing single agent and combination approaches to target other upstream nodes that impact the RAS/MAPK pathway such as EGFR (ERAS-801 and ERAS-12), an RTK that represents a key escape route for RAS/MAPK signaling, and SOS1 (ERAS-9), a guanine nucleotide exchange factor that enables RAS to cycle from the inactive GDP state to the active GTP state.

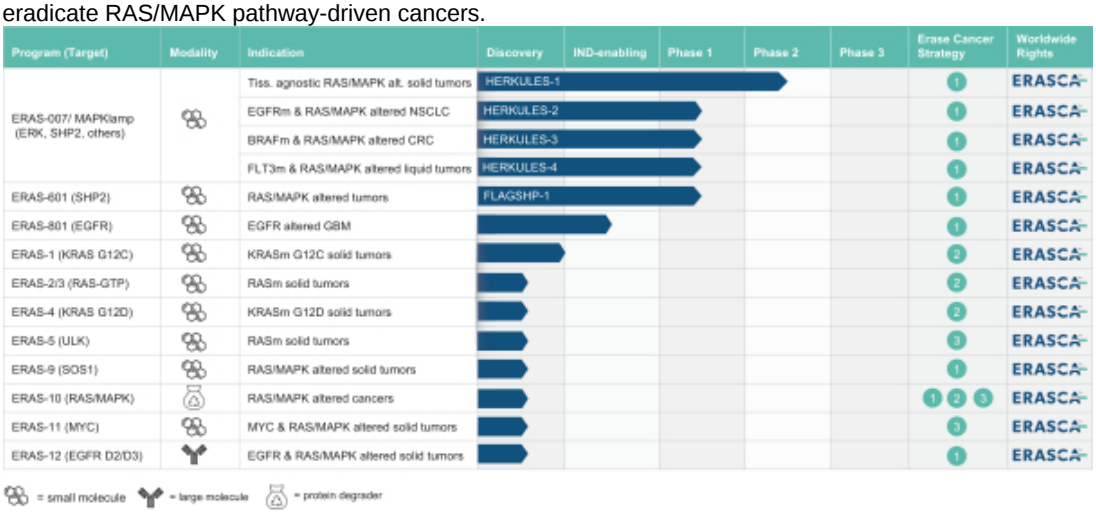
2. ***Target RAS, the midstream MAPK pathway node, directly with single agents and combinations.*** We are discovering and developing molecules that have the potential to inhibit RAS in its inactive GDP state (RAS-GDP) as well as its more prevalent active GTP state (RAS-GTP). Utilizing our in-house discovery efforts employing structure-based drug design, we are developing proprietary central nervous system (CNS)-penetrant inhibitors of KRAS G12C (ERAS-1), which is the only RAS isoform and mutation that is more commonly present in the inactive RAS-GDP state. We are also developing proprietary compounds against KRAS G12D (ERAS-4), which is more commonly found in the active RAS-GTP state and is the most prevalent

KRAS mutation. Our approach to targeting other RAS isoforms and mutations that are found more commonly in the RAS-GTP state is based on the foundational discoveries of one of our co-founders, Dr. Kevan Shokat, a world-renowned pioneer of novel therapeutic approaches to targeting key signaling pathways such as RAS/MAPK in cancer.

Dr. Shokat's deep expertise in chemical genetics, a combination of protein engineering and organic synthesis, led to his identification of both a binding pocket termed the "switch II pocket" (S-IIP) on KRAS G12C, a RAS-GDP mutation which was previously considered undruggable, and a compound that could bind to it. This seminal discovery has launched the development of multiple KRAS G12C inhibitors targeting the S-IIP. Dr. Shokat then turned his attention to RAS-GTP mutations which, compared to RAS-GDP mutations, are more challenging to drug and arguably more important, as other RAS isoforms and mutations are present more frequently in the active RAS-GTP state, thereby driving downstream phosphorylation and oncogenic signaling. Dr. Shokat made a breakthrough discovery of a new binding site termed the "switch II groove" (S-IIG), which could be utilized to inhibit the GTP and GDP states of RAS. This landmark discovery allows for the possibility of targeting multiple RAS isoforms (including KRAS, HRAS, and NRAS) and mutations (including G12X, G13X, and Q61X) with small molecule compounds that can potentially bind to the S-IIG. We entered into an exclusive worldwide license agreement with the University of California, San Francisco (UCSF) for Dr. Shokat's work related to RAS-GTP, which guides our ERAS-2/3 programs.

3. ***Target escape routes enabled by other proteins or pathways to further disrupt RAS/MAPK pathway signaling.*** RAS-driven cancers utilize escape routes, namely cooperative mechanisms, to develop resistance. As an example, RAS-driven cancers can become dependent on autophagy, which becomes constitutively active and represents a potential escape route for metabolically active tumors such as pancreatic ductal adenocarcinoma. By targeting ULK (ERAS-5), a key regulator of autophagy, in combination with our RAS targeting agents, we aim to shut down this potential escape route for RAS-driven cancers. We also are actively pursuing various ways to further disrupt RAS/MAPK pathway signaling by degrading key proteins (ERAS-10). Finally, MYC is a transcription factor and oncogene that is overexpressed in the majority of cancers and a key enabler of RAS/MAPK pathway signaling at the transcriptional level. We are discovering novel approaches to targeting MYC (ERAS-11).

To pursue these therapeutic strategies, we have assembled and are developing what we believe is the deepest pipeline targeting multiple signaling nodes to shut down the RAS/MAPK pathway. We intend to study these agents either alone or in rational combinations across multiple relevant tumor types. The following table summarizes our current, wholly-owned or controlled, modality-agnostic pipeline to eradicate RAS/MAPK pathway-driven cancers.




Our lead product candidates are ERAS-007 (our oral ERK1/2 inhibitor) and ERAS-601 (our oral SHP2 inhibitor), which together comprise our first MAPKlamp. The extracellular signal-regulated kinases (ERK), ERK1 and ERK2, belong to a family of serine-threonine kinases that regulate cellular signaling, and comprise the most distal node of the RAS/MAPK pathway. ERK proteins propagate signaling for multiple cellular functions involved in cell growth and differentiation, which are often overactivated in RAS/MAPK pathway-driven cancers. We in-licensed ERAS-007 based in part on preclinical studies that demonstrated the highest potency and longest target residence time of ERK inhibitors of which we are aware. Please see the results of such preclinical studies beginning on page 127 of this prospectus for more information on the relative potency and residence time exhibited in such studies. ERAS-007 has been evaluated as a single agent in a Phase 1 clinical trial in patients with advanced solid tumors. Forty-nine patients were enrolled and administered ERAS-007 once a day (QD) or once weekly (QW). Objective responses have been observed at doses from 120 mg to 250 mg QW in multiple tumor types (melanoma, salivary gland tumor, non-small cell lung cancer [NSCLC], and thyroid cancer) that all harbor alterations (BRAF, HRAS, and NRAS) in the RAS/MAPK pathway, supporting the development of ERAS-007 QW as a monotherapy or combination therapy in diverse, biomarker-selected tumor types. In this trial, ERAS-007 demonstrated a reversible and manageable adverse event profile.

We are pursuing a broad clinical development plan for ERAS-007, which we refer to as our HERKULES series of clinical trials, across multiple tumor types that includes both monotherapy and combinations with approved and investigational agents, such as RTK, SHP2, RAS, and/or RAF inhibitors. The first four HERKULES Phase 1b/2 proof-of-concept (POC) clinical trials will explore both tissue agnostic and tissue specific indications in patients with solid tumors and hematologic malignancies, including NSCLC, colorectal cancer (CRC), and acute myeloid leukemia (AML). In May 2021, we dosed the first patient in HERKULES-1, a Phase 1b/2 clinical trial evaluating ERAS-007 as a single agent and in combination with ERAS-601 (MAPKlamp) in advanced solid tumors. We are planning to dose the first patient in HERKULES-2, a Phase 1b/2 clinical trial for ERAS-007/MAPKlamp in combination with various agents in patients with NSCLC, in the third quarter of 2021. We are planning to dose

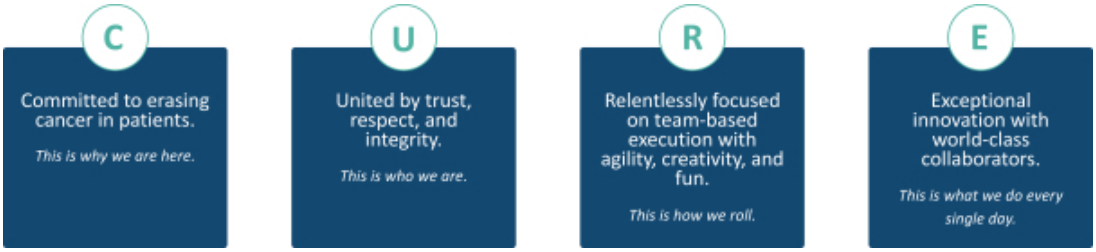
the first patient in HERKULES-3, a Phase 1b/2 clinical trial for ERAS-007/MAPKlamp in combination with various agents in patients with CRC, in the second half of 2021. Finally, in the first quarter of 2022, we plan to dose the first patient in HERKULES-4, a Phase 1b/2 clinical trial for ERAS-007/MAPKlamp in combination with various agents in patients with hematologic malignancies. While providing POC data, these trials may be expanded to enable potential accelerated approvals in their respective indications.

The second prong of our first MAPKlamp, ERAS-601, is designed to be a potent and selective oral inhibitor of SHP2, a convergent node for upstream RTK signaling and a critical “on/off switch” that activates RAS-GTP signaling. SHP2 also drives tumor cell proliferation and development of resistance. Our SHP2 inhibitor is designed to block oncogenic signal transduction and delay the onset of therapeutic resistance, and thereby serve as a backbone of combination therapy. In the fourth quarter of 2020, we initiated FLAGSHP-1, a Phase 1 clinical trial for ERAS-601 in patients with advanced solid tumors.

We anticipate that a development candidate (DevCan) arising from ERAS-1, our KRAS G12C inhibitor program with high CNS penetration, will enter IND-enabling studies in the second half of 2021. We are conducting IND-enabling studies for ERAS-801, our CNS-penetrant EGFR inhibitor, and expect to file an IND for development in refractory glioblastoma multiforme (GBM) in the first quarter of 2022. We are also advancing seven other programs targeting key oncogenic drivers in the RAS/MAPK pathway, which we will need to successfully progress through discovery and IND-enabling activities prior to advancing these programs into clinical development, if at all.

## Our core values, team, and social mission

We are a team of experienced drug discoverers, developers, and company builders who are united by our mission to erase cancer and passionate about creating potentially life-saving precision oncology medicines singularly focused on targeting the RAS/MAPK pathway. Our leadership team has broad and deep experience in oncology, including advancing therapeutic candidates from discovery research to clinical development, regulatory approval, and commercialization. Our core values are embodied by our quest for the CURE:




Dr. Jonathan Lim, our Chairman, CEO, and Co-Founder, has pioneered transformative advancements in precision oncology and drug delivery, including leading Ignyta’s trailblazing pursuit of a global tissue agnostic label for ROZLYTREK, which became the first drug in biopharmaceutical history to achieve the unprecedented triple crown of breakthrough designations with BTD (FDA), PRIME (EMA) and Sakigake (PMDA). He has served as Chairman and/or CEO and founding investor of six biotechnology companies that have collectively achieved global regulatory approval and launch of seven therapeutic products in oncology, immunology, and drug delivery, benefitting thousands of patients worldwide.

Dr. Michael Varney, our Chairman of R&D, scientific advisory board (SAB) member, and a member of our board of directors, is a pioneer drug discoverer and biotech leader. His leadership at Agouron resulted in the discovery of multiple currently marketed anti-cancer agents, including XALKORI and INLYTA. As Executive Vice

President and Head of Genentech's Research and Early Development (gRED) and a member of the Roche Corporate Executive Committee, he was responsible for all aspects of gRED innovation, drug discovery and development, and built a team-based organization that today contributes to more than 40% of Genentech's development portfolio, including the marketed anti-cancer agents ERIVEDGE and COTELLIC. Under his leadership, gRED teams discovered and developed successful medicines that include VENCLEXTA with AbbVie, the first BCL-2 inhibitor, and POLIVY, an antibody drug conjugate for the treatment of diffuse large B-cell lymphoma (DLBCL).

Dr. Wei Lin, our Chief Medical Officer, was responsible for all development functions and the clinical development of Nektar's pipeline, including advancing bempegaldesleukin into multiple registrational trials and achieving US Food and Drug Administration (FDA) breakthrough therapy designation in metastatic melanoma. Prior to Nektar, Dr. Lin was the global development lead in cancer immunotherapy for lung cancer and head and neck cancer at Roche/Genentech. Under his leadership, his team oversaw 10 registrational studies, completed five positive Phase 3 trials, and achieved three US and EU regulatory approvals for TECENTRIQ, including the first advancement in first-line small cell lung cancer in three decades. He was also the site head for oncology product development for Roche China, where his team achieved multiple additional regulatory approvals for AVASTIN, ZELBORAF, and TARCEVA.

Dr. David Chacko, our Chief Financial Officer, joined us initially as Chief Business Officer from Versant Ventures, where he was a Principal with both investing and operating responsibilities. He helped lead investment opportunities across multiple therapeutic areas and advanced several Versant portfolio companies operationally through company formation, fundraising, corporate and business development, and clinical and regulatory activities. His prior roles at Alcon/Novartis, McKinsey, SR One, and Morgan Stanley bring to Erasca deep experience in strategy, finance, fundraising, business development, and operations.

Many members of our leadership team have worked together previously at Ignyta or Roche/Genentech, or have joined us from other leading companies in the biopharmaceutical and life science tools sectors such as Aragon, Illumina, Lilly, Medivation, Merck, Myovant, Neurocrine, Pfizer, Seragon, and Synthorx, and have worked on numerous oncology drugs that have been approved and launched for the benefit of patients.

Dr. Lim founded Erasca with Dr. Kevan Shokat, who sits on our SAB with other RAS/MAPK pathway experts. We are supported by our SAB and R&D advisory board, board of directors, and a leading syndicate of investors which include our founding investors, City Hill Ventures and Cormorant Asset Management, and ARCH Venture Partners, Andreessen Horowitz, Colt Ventures, EDBI, Invus, LifeSci Venture Partners, OrbiMed Healthcare Fund Management, PFM Health Sciences, and Terra Magnum.

At Erasca, while our mission to erase cancer inspires us, we know we can do more to make an even broader contribution to society. To that end, we are pursuing environmental, social, and governance (ESG) initiatives that are aligned with our core mission.

- ***Erasca Foundation:*** In May 2021, we established the Erasca Foundation, which will be funded by the donation of 1% of our capital stock prior to the closing of this offering. The Erasca Foundation will provide support such as direct research grants, hardship grants, patient advocacy, patient education in underserved populations, and funding for other initiatives to positively impact society.
- ***Inclusive clinical trial participation:*** We intend to make clinical trials of our product candidates more accessible to diverse patient populations and plan to partner with others who are like-minded in this regard.
- ***Drug access program****:* We intend to provide patients with access to the drugs we develop and commercialize, including through compassionate use programs if our products are demonstrated to be safe

and efficacious. We also intend to increase access to life-changing drugs in underserved populations if our products become commercially available.

## Our corporate strategies to erase cancer

Our mission is to erase cancer by eradicating RAS/MAPK pathway-driven cancers. Our corporate strategies to achieve our mission include:

- Relentlessly focus on patients and society in our mission to erase cancer;
- Develop novel single agent and combination regimens to comprehensively shut down the RAS/MAPK pathway for the treatment of cancer;
- Advance our deep, modality-agnostic, RAS/MAPK pathway-focused pipeline;
- Internally and externally source, on a global basis, potentially disruptive programs targeting RAS/MAPK pathway alterations;
- Lead the next revolution in precision oncology.
- Evaluate opportunities to accelerate development timelines and enhance the commercial potential of our programs in collaboration with third parties.

## Summary of risks related to our business

Our ability to execute our business strategy is subject to numerous risks, as more fully described in “Risk factors” immediately following this Prospectus summary. These risks include, among others:

- We have a limited operating history, have incurred significant operating losses since our inception and expect to incur significant losses for the foreseeable future. We may never generate any revenue or become profitable or, if we achieve profitability, we may not be able to sustain it.
- We will require substantial additional capital to finance our operations, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our development programs, commercialization efforts or other operations.
- We are early in our development efforts and are only beginning to test our product candidates in clinical trials. If we are unable to successfully develop and commercialize our product candidates or experience significant delays in doing so, our business will be materially harmed.
- Clinical and preclinical development involves a lengthy and expensive process with an uncertain outcome, and the results of preclinical studies and early clinical trials are not necessarily predictive of future results. Our product candidates may not have favorable results in clinical trials, if any, or receive regulatory approval on a timely basis, or at all.
- Any difficulties or delays in the commencement or completion, or termination or suspension, of our current or planned clinical trials could result in increased costs to us, delay or limit our ability to generate revenue and adversely affect our commercial prospects.
- We rely on third parties to conduct many of our preclinical studies and clinical trials and to manufacture our product candidates, and these third parties may not perform satisfactorily.

- We face significant competition, and if our competitors develop technologies or product candidates more rapidly than we do or their technologies are more effective, our business and ability to develop and successfully commercialize products may be adversely affected.
- Our success depends on our ability to protect our intellectual property and our proprietary technologies.

## Our corporate and other information

We were originally founded as a Delaware corporation on July 2, 2018. Our principal executive offices are located at 10835 Road to the Cure, Suite 140, San Diego, California 92121, and our telephone number is 858-465-6511. Our website address is www.erasca.com. The information contained in, or accessible through, our website does not constitute part of this prospectus. We have included our website address as an inactive textual reference only.

We use our trademarks in this prospectus as well as trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, trademarks and tradenames referred to in this prospectus appear without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or that the applicable owner will not assert its rights, to these trademarks and tradenames.

## Implications of being an emerging growth company and a smaller reporting company

As a company with less than $1.07 billion in revenue during our last fiscal year, we qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012 (the JOBS Act). An emerging growth company may take advantage of reduced reporting requirements that are otherwise applicable to public companies. These provisions include, but are not limited to:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced “Management’s discussion and analysis of financial condition and results of operations” disclosure;
- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended (Sarbanes-Oxley Act);
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor’s report providing additional information about the audit and the financial statements, unless the US Securities Exchange Commission (SEC) determines the new rules are necessary for protecting the public;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may take advantage of these provisions until the last day of our fiscal year following the fifth anniversary of the date of the first sale of our common equity securities pursuant to an effective registration statement under the Securities Act of 1933, as amended (the Securities Act), which such fifth anniversary will occur in 2026. However, if certain events occur prior to the end of such five-year period, including if we become a “large accelerated filer” as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended (the

Exchange Act), our annual gross revenues exceed $1.07 billion or we issue more than $1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period.

We have elected to take advantage of certain of the reduced disclosure obligations in this prospectus and in the registration statement of which this prospectus is a part and may elect to take advantage of other reduced reporting requirements in future filings. As a result, the information in this prospectus and that we provide to our stockholders in the future may be different than what you might receive from other public reporting companies in which you hold equity interests.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. We have elected to avail ourselves of this exemption and, therefore, we will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. As a result, our consolidated financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

We are also a smaller reporting company as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than $250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than $100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

# The offering

| | |
|---|---|
| **Common stock offered by us** | shares. |
| **Option to purchase additional shares** | The underwriters have been granted an option to purchase up to additional shares of common stock from us at any time within 30 days from the date of this prospectus. |
| **Common stock to be outstanding immediately after this offering** | shares (or shares if the underwriters exercise their option to purchase additional shares in full). |
| **Use of proceeds** | We currently intend to use the net proceeds of this offering, together with our existing cash, cash equivalents and investments, to fund the research and development of our product candidates and other development programs and for working capital and general corporate purposes. We may also use a portion of the remaining net proceeds and our existing cash, cash equivalents and investments, to in-license, acquire, or invest in complementary businesses, technologies, products or assets; however, we have no current commitments or obligations to do so. See the section titled “Use of proceeds.” |
| **Risk factors** | See the section titled “Risk factors” and other information included in this prospectus for a discussion of factors you should consider carefully before deciding to invest in our common stock. |
| **Directed share program** | At our request, the underwriters have reserved up to 5% of the shares offered by this prospectus for sale at the initial public offering price to certain individuals through a directed share program, including our directors, officers, employees, business associates and related persons. The sales will be made at our direction by J.P. Morgan Securities LLC and its affiliates through a directed share program. The number of shares of our common stock available for sale to the general public in this offering will be reduced to the extent that such persons purchase such reserved shares. Any reserved shares not so purchased will be offered by the underwriters to the general public on the same terms as the other shares of our common stock offered by this prospectus. See the section titled “Underwriting” for additional information. |
| **Proposed Nasdaq Global Select Market symbol** | “ERAS” |

The number of shares of our common stock to be outstanding after this offering set forth above is based on 116,871,619 shares of our common stock outstanding as of March 31, 2021, including 3,905,103 shares subject to forfeiture or our right of repurchase, after giving effect to the automatic conversion of all outstanding shares of our convertible preferred stock into 85,516,454 shares of our common stock immediately prior to the closing of this offering, and excludes:

- 12,036,860 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2021, with a weighted-average exercise price of $1.53 per share;

- 3,495,000 shares of common stock issuable upon the exercise of stock options granted after March 31, 2021, with a weighted-average exercise price of $4.84 per share;
- shares of common stock reserved for future issuance under our 2021 Incentive Plan (the 2021 Plan), which will become effective in connection with this offering (which number does not include any potential evergreen increases pursuant to the terms of the 2021 Plan);
- shares of common stock reserved for future issuance under our 2021 Employee Stock Purchase Plan (the ESPP), which will become effective in connection with this offering (which number does not include any potential evergreen increases pursuant to the terms of the ESPP); and
- shares of common stock issued to the Erasca Foundation on June , 2021.

Unless otherwise indicated, all information contained in this prospectus assumes or gives effect to:

- the filing and effectiveness of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws, each of which will occur immediately prior to the closing of this offering;
- the automatic conversion of all outstanding shares of our convertible preferred stock into 85,516,454 shares of our common stock immediately prior to the closing of this offering;
- a -for- stock split of our common stock to be effected before the closing of this offering;
- no exercise of the outstanding options described above; and
- no exercise by the underwriters of their option to purchase additional shares of our common stock.

# Summary consolidated financial data

The following tables set forth a summary of our historical consolidated financial data as of, and for the periods ended on, the dates indicated. We have derived the summary consolidated statements of operations data for the years ended December 31, 2019 and 2020 from our audited consolidated financial statements included elsewhere in this prospectus. The summary consolidated statements of operations data for the three months ended March 31, 2020 and 2021 and the summary consolidated balance sheet data as of March 31, 2021 have been derived from our unaudited consolidated financial statements included elsewhere in this prospectus and have been prepared on the same basis as the audited consolidated financial statements. In the opinion of management, the unaudited data reflect all adjustments, consisting only of normal recurring adjustments, necessary for the fair statement of the financial information in those statements. You should read these data together with our consolidated financial statements and related notes included elsewhere in this prospectus and the sections titled “Selected consolidated financial data” and “Management’s discussion and analysis of financial condition and results of operations.” Our historical results for any prior period are not necessarily indicative of our future results, and our results for any interim period are not necessarily indicative of results that may be expected for any full year.

| | Year ended December 31, | | Three months ended March 31, | |
|---|---|---|---|---|
| **(in thousands, except share and per share data)** | **2019** | **2020** | **2020** | **2021** |
| | | | (unaudited) | |
| **Statements of Operations Data:** | | | | |
| Operating expenses: | | | | |
| Research and development | $ 9,618 | $ 29,550 | $ 4,554 | $ 12,245 |
| In-process research and development | — | 71,745 | 17,670 | 3,680 |
| General and administrative | 3,676 | 7,957 | 1,611 | 3,682 |
| Total operating expenses | 13,294 | 109,252 | 23,835 | 19,607 |
| Loss from operations | (13,294) | (109,252) | (23,835) | (19,607) |
| Other income (expense), net: | | | | |
| Interest income | 1,303 | 336 | 185 | 30 |
| Other expense | (49) | (102) | (8) | (55) |
| Change in fair value of preferred stock purchase right liability | — | 7,358 | — | 1,615 |
| Total other income (expense), net | 1,254 | 7,592 | 177 | 1,590 |
| Net loss | $ (12,040) | $ (101,660) | $ (23,658) | $ (18,017) |
| Net loss per share, basic and diluted[1] | $ (0.51) | $ (4.03) | $ (0.96) | $ (0.68) |
| Weighted-average shares of common stock outstanding, basic and diluted[1] | 23,795,645 | 25,247,998 | 24,760,841 | 26,684,702 |
| Pro forma net loss per share, basic and diluted (unaudited)[2] | | $ (1.32) | | $ (0.18) |
| Pro forma weighted-average shares of common stock outstanding, basic and diluted (unaudited)[2] | | 82,292,627 | | 108,837,782 |

(1) See Note 2 to our audited consolidated financial statements included elsewhere in this prospectus for an explanation of the method used to calculate historical net loss per share, basic and diluted, and the weighted-average number of shares of common stock used in the computation of the per share amounts.

(2) Unaudited pro forma net loss per share, basic and diluted, attributable to common stockholders, is calculated giving effect to the conversion of the convertible preferred stock into shares of common stock. Unaudited pro forma net loss per share attributable to common stockholders does not include the shares expected to be sold and related proceeds to be received in this offering. Unaudited pro forma net loss per share attributable to common stockholders for the year ended December 31, 2020 and the three months ended March 31, 2021 was calculated using the weighted-average number of shares of common stock outstanding, including the pro forma effect of the conversion of all outstanding shares of our convertible preferred stock into shares of our common stock, as if such conversion had occurred at the beginning of the period, or their issuance dates, if later, and an adjustment to the net loss in the pro forma basic and diluted net loss per share calculation to remove gains from the remeasurement of the preferred stock purchase right liability.

| | As of March 31, 2021 | | |
|---|---|---|---|
| **(in thousands)** | **Actual** | **Pro forma[1]** | **Pro forma as adjusted[2][3]** |
| | | **(unaudited)** | |
| **Balance Sheet Data:** | | | |
| Cash, cash equivalents and investments | $ 217,340 | $ 217,340 | $ |
| Working capital[4] | 203,130 | 203,130 | |
| Total assets | 224,628 | 224,628 | |
| Convertible preferred stock | 340,798 | — | |
| Accumulated deficit | (133,419) | (133,419) | |
| Total stockholders' (deficit) equity | (129,259) | 211,539 | |

(1) Gives effect to the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 85,516,454 shares of our common stock and the related reclassification of the carrying value of the convertible preferred stock to permanent equity immediately prior to the closing of this offering.

(2) Gives effect to (i) the pro forma adjustments set forth in footnote (1) above, and (ii) the issuance and sale of shares of our common stock in this offering at the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each $1.00 increase or decrease in the assumed initial public offering price of $ per share would increase or decrease, as applicable, the pro forma as adjusted amount of each of our cash, cash equivalents and investments, working capital, total assets and total stockholders' (deficit) equity by approximately $ , assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each increase or decrease of 1.0 million shares in the number of shares offered by us at the assumed initial public offering price of $ per share would increase or decrease, as applicable, the pro forma as adjusted amounts of each of our cash, cash equivalents and investments, working capital, total assets and total stockholders' (deficit) equity by approximately $ , after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(3) The pro forma as adjusted information discussed above is illustrative only and will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing.

(4) We define working capital as current assets less current liabilities. See our consolidated financial statements included elsewhere in this prospectus for further details regarding our current assets and current liabilities.

# Risk factors

*Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information in this prospectus, including our consolidated financial statements and related notes included elsewhere in this prospectus and the section titled "Management's discussion and analysis of financial condition and results of operations" before making an investment decision. If any of the following risks are realized, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the trading price of our common stock could decline and you could lose part or all of your investment.*

## Risks related to our limited operating history, financial position and need for additional capital

***We have a limited operating history, have incurred significant operating losses since our inception and expect to incur significant losses for the foreseeable future. We may never generate any revenue or become profitable or, if we achieve profitability, we may not be able to sustain it.***

We are a clinical-stage biopharmaceutical company with a limited operating history upon which you can evaluate our business and prospects. We commenced operations in 2018, and to date, we have focused primarily on organizing and staffing our company, business planning, raising capital, identifying, acquiring and in-licensing our product candidates, establishing our intellectual property portfolio, conducting research, preclinical studies and clinical trials, establishing arrangements with third parties for the manufacture of our product candidates and related raw materials, and providing general and administrative support for these operations. Our approach to the discovery and development of product candidates based on our scientific approach is unproven, and we do not know whether we will be able to develop or obtain regulatory approval for any products of commercial value. In addition, we only have two product candidates, ERAS-007 and ERAS-601, in early clinical development, and our other product candidates remain in the preclinical or discovery stage. We have not yet completed any later-stage, large-scale or pivotal clinical trials, obtained regulatory approvals, manufactured a commercial-scale product, or arranged for a third party to do so on our behalf, or conducted sales and marketing activities necessary for successful product commercialization. Consequently, any predictions made about our future success or viability may not be as accurate as they could be if we had a history of successfully developing and commercializing biopharmaceutical products.

We have incurred significant operating losses since our inception and expect to incur significant losses for the foreseeable future. We do not have any products approved for sale and have not generated any revenue since our inception. If we are unable to successfully develop and obtain requisite approval for our product candidates, we may never generate any revenue. Our net losses were $12.0 million and $101.7 million for the years ended December 31, 2019 and 2020, respectively, and $18.0 million for the three months ended March 31, 2021. As of March 31, 2021, we had an accumulated deficit of $133.4 million. Substantially all of our losses have resulted from expenses incurred in connection with our research and development programs and from general and administrative costs associated with our operations. All of our product candidates will require substantial additional development time and resources before we would be able to apply for or receive regulatory approvals and begin generating revenue from product sales. We expect to continue to incur losses for the foreseeable future, and we anticipate these losses will increase substantially as we continue our development of, seek regulatory approval for and potentially commercialize any of our product candidates and seek to identify, assess, acquire, in-license or develop additional product candidates.

To become and remain profitable, we must succeed in developing and eventually commercializing products that generate significant revenue. This will require us to be successful in a range of challenging activities, including

completing clinical trials and preclinical studies of our product candidates, discovering, acquiring or in-licensing additional product candidates, obtaining regulatory approval for these product candidates, and manufacturing, marketing, and selling any products for which we may obtain regulatory approval. We are only in the preliminary stages of most of these activities. We may never succeed in these activities and, even if we do, may never generate revenue that is significant enough to achieve profitability. In addition, we have not yet demonstrated an ability to successfully overcome many of the risks and uncertainties frequently encountered by companies in new and rapidly evolving fields, particularly in the biopharmaceutical industry. Because of the numerous risks and uncertainties associated with biopharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable may have an adverse effect on the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our product candidates, or even continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

***We will require substantial additional capital to finance our operations, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our development programs, commercialization efforts or other operations.***

The development of biopharmaceutical product candidates is capital-intensive. Our operations have consumed substantial amounts of cash since inception. We expect our expenses to increase in connection with our ongoing activities, particularly as we conduct our ongoing and planned clinical trials and preclinical studies, and seek regulatory approval for our current product candidates and any future product candidates we may develop or otherwise acquire. In addition, as our product candidates progress through development and toward commercialization, we will need to make milestone payments to the licensors and other third parties from whom we have in-licensed or acquired our product candidates, including ERAS-007 and ERAS-601. If we obtain regulatory approval for any of our product candidates, we also expect to incur significant commercialization expenses related to product manufacturing, marketing, sales, and distribution. Because the outcome of any clinical trial or preclinical study is highly uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of our product candidates. Furthermore, following the completion of this offering, we expect to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

Based on our current operating plan, we believe that the net proceeds from this offering, together with our existing cash, cash equivalents and investments, will be sufficient to fund our operations for at least the next months from the date of this prospectus. In particular, we expect that the net proceeds from this offering and our existing cash, cash equivalents and investments will allow us to . We have based these estimates on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect. Our operating plans and other demands on our cash resources may change as a result of many factors currently unknown to us, and we may need to seek additional funds sooner than planned, through public or private equity or debt financings or other capital sources, including potential collaborations, licenses and other similar arrangements. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. Attempting to secure additional financing may divert our management from our day-to-day activities, which may adversely affect our ability to develop our product candidates.

Our future capital requirements will depend on many factors, including, but not limited to:

- the type, number, scope, progress, expansions, results, costs and timing of discovery, preclinical studies and clinical trials of our product candidates which we are pursuing or may choose to pursue in the future, including the costs of any third-party products used in our combination clinical trials that are not covered by such third party or other sources;
- the costs and timing of manufacturing for our product candidates, including commercial manufacturing if any product candidate is approved;
- the costs, timing and outcome of regulatory review of our product candidates;
- the costs of obtaining, maintaining and enforcing our patents and other intellectual property rights;
- our efforts to enhance operational systems and hire additional personnel to satisfy our obligations as a public company, including enhanced internal controls over financial reporting;
- the costs associated with hiring additional personnel and consultants as our preclinical and clinical activities increase;
- the timing and amount of the milestone or other payments we must make to the licensors and other third parties from whom we have in-licensed our acquired our product candidates;
- the costs and timing of establishing or securing sales and marketing capabilities if any product candidate is approved;
- our ability to achieve sufficient market acceptance, coverage and adequate reimbursement from third-party payors and adequate market share and revenue for any approved products;
- patients' willingness to pay out-of-pocket for any approved products in the absence of coverage and/or adequate reimbursement from third-party payors;
- any delays and cost increases that result from the COVID-19 pandemic;

  the terms and timing of establishing and maintaining collaborations, licenses and other similar arrangements; and
- costs associated with any products or technologies that we may in-license or acquire.

Conducting clinical trials and preclinical studies and identifying potential product candidates is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain regulatory approval and commercialize our product candidates. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenue, if any, will be derived from sales of products that we do not expect to be commercially available for many years, if at all.

Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all.

***Raising additional capital may cause dilution to our stockholders, including purchasers of common stock in this offering, restrict our operations or require us to relinquish rights to our technologies or product candidates.***

Until such time, if ever, as we can generate substantial product revenue, we expect to finance our cash needs through equity offerings, debt financings, or other capital sources, including potential collaborations, licenses and other similar arrangements. We do not have any committed external source of funds. To the extent that we

raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. Such restrictions could adversely impact our ability to conduct our operations and execute our business plan.

If we raise additional funds through future collaborations, licenses and other similar arrangements, we may have to relinquish valuable rights to our future revenue streams, research programs or product candidates, or grant licenses on terms that may not be favorable to us and/or that may reduce the value of our common stock. If we are unable to raise additional funds through equity or debt financings or other arrangements when needed or on terms acceptable to us, we would be required to delay, limit, reduce, or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

## Risks related to the discovery, development and regulatory approval of our product candidates

***We are early in our development efforts and have only two product candidates in clinical development. All of our other development programs are still in the preclinical or discovery stage. If we are unable to successfully develop, obtain regulatory approval and ultimately commercialize any of our current or future product candidates, or experience significant delays in doing so, our business will be materially harmed.***

We are early in our development efforts and have only two product candidates, ERAS-007 and ERAS-601, in early clinical development. All of our other programs are still in the preclinical or discovery stage. Our ability to generate product revenue, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of our product candidates. The success of our product candidates will depend on several factors, including the following:

- initiation and successful enrollment of clinical trials and timely completion of clinical trials and preclinical studies with favorable results;
- acceptance of investigational new drug applications (INDs) by the FDA, or of similar regulatory submissions by comparable foreign regulatory authorities for the conduct of clinical trials of our product candidates and our proposed design of future clinical trials;
- the frequency and severity of adverse events in clinical trials;
- maintaining and establishing relationships with contract research organizations (CROs) and clinical sites for the clinical development of our product candidates both in the United States and internationally;
- demonstrating the safety, purity, potency and efficacy of our product candidates to the satisfaction of applicable regulatory authorities;
- receipt of marketing approvals from applicable regulatory authorities, including new drug applications (NDAs) and biologics license applications (BLAs) from the FDA and maintaining such approvals;
- making arrangements with our third-party manufacturers for, or establishing, commercial manufacturing capabilities;
- establishing sales, marketing and distribution capabilities and launching commercial sales of our products, if and when approved, whether alone or in collaboration with others;

- establishing and maintaining patent and trade secret protection or regulatory exclusivity for our product candidates;
- maintaining an acceptable safety profile of our products following approval, if any; and
- maintaining and growing an organization of people who can develop and commercialize our products and technology.

If we are unable to develop, obtain regulatory approval for, or, if approved, successfully commercialize our product candidates, we may not be able to generate sufficient revenue to continue our business.

***Our approach to the discovery and development of product candidates is unproven, and we do not know whether we will be able to develop any products of commercial value, or if competing approaches will limit the commercial value of our product candidates.***

The success of our business depends primarily upon our ability to identify, develop and commercialize products based on our scientific approach, which is singularly focused on shutting down the RAS/MAPK pathway, a novel and unproven approach. While we have had favorable preclinical study results for certain of our development programs, we have not yet succeeded and may not succeed in demonstrating efficacy and safety for any product candidates in clinical trials or in obtaining marketing approvals from the FDA or other regulatory authorities or in commercializing such product candidates. Our lead product candidates, ERAS-007 and ERAS-601, are in early clinical development and, as an organization, we have not completed any clinical trials for any of our product candidates. In addition, while we believe our pipeline will yield multiple additional INDs for our development programs in the future, we may not be successful in our discovery efforts, and even if successful, we may not be able to submit INDs and have such INDs accepted to enable us to commence clinical trials on the timelines we expect, if at all. Our research methodology and scientific approach may be unsuccessful in identifying additional product candidates, and any product candidates may be shown to have harmful side effects or may have other characteristics that may necessitate additional clinical testing, or make the product candidates unmarketable or unlikely to receive marketing approval. In particular, using multiple agents to shut down multiple nodes of the RAS/MAPK pathway simultaneously is a novel approach that may have unexpected consequences, including adverse events that preclude successful development and approval of our product candidates. Further, because all of our current product candidates and development programs are based on the RAS/MAPK pathway, adverse developments with respect to one of our programs may have a significant adverse impact on the actual or perceived likelihood of success and value of our other programs.

In addition, the biotechnology and biopharmaceutical industries are characterized by rapidly advancing technologies. Our future success will depend in part on our ability to maintain a competitive position with our scientific approach. If we fail to stay at the forefront of technological change in utilizing our approach to create and develop product candidates, we may be unable to compete effectively. Our competitors may render our approach obsolete, or limit the commercial value of our products or product candidates by advances in existing technological approaches or the development of new or different approaches, potentially eliminating the advantages in our drug discovery process that we believe we derive from our approach. By contrast, adverse developments with respect to other companies that attempt to use a similar approach to our approach may adversely impact the actual or perceived value and potential of our product candidates.

If any of these events occur, we may be forced to abandon our development efforts for a program or programs, which would have a material adverse effect on our business and could potentially cause us to cease operations.

***Clinical and preclinical development involves a lengthy and expensive process with an uncertain outcome, and the results of preclinical studies and early clinical trials are not necessarily predictive of future results. Any of our product candidates may not have favorable results in clinical trials, if any, or receive regulatory approval on a timely basis, if at all.***

Clinical and preclinical development is expensive and can take many years to complete, and its outcome is inherently uncertain. We cannot guarantee that any clinical trials or preclinical studies will be conducted as planned or completed on schedule, if at all, and failure can occur at any time during the preclinical study or clinical trial process, including due to factors that are beyond our control. Despite promising preclinical or clinical results, any product candidate can unexpectedly fail at any stage of preclinical or clinical development. The historical failure rate for product candidates in our industry is high.

The results from preclinical studies or clinical trials of a product candidate or a competitor's product candidate in the same class may not predict the results of later clinical trials of our product candidate, and interim, topline, or preliminary results of a clinical trial are not necessarily indicative of final results. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy characteristics despite having progressed through preclinical studies and initial clinical trials. For example, while a Phase 1 clinical trial of ERAS-007 was completed prior to our acquisition of this product candidate and while we have conducted preclinical studies of ERAS-601, we do not know whether they or our other potential product candidates will perform in future clinical trials as they have performed in these prior trials and studies. It is not uncommon to observe results in clinical trials that are unexpected based on preclinical studies and early clinical trials, and many product candidates fail in clinical trials despite very promising early results. We are currently conducting IND-enabling preclinical studies for ERAS-801. If unexpected observations or toxicities are observed in these studies, or in future IND-enabling studies for any of our other development programs, such results may delay or prevent the initiation of clinical trials for such development programs. Moreover, preclinical and clinical data may be susceptible to varying interpretations and analyses. A number of companies in the biopharmaceutical and biotechnology industries have suffered significant setbacks in clinical development even after achieving promising results in earlier studies.

For the foregoing reasons, we cannot be certain that our ongoing and planned clinical trials and preclinical studies will be successful. Any safety concerns observed in any one of our clinical trials in our targeted indications could limit the prospects for regulatory approval of our product candidates in those and other indications, which could have a material adverse effect on our business, financial condition and results of operations.

***Any difficulties or delays in the commencement or completion, or termination or suspension, of our current or planned clinical trials could result in increased costs to us, delay or limit our ability to generate revenue and adversely affect our commercial prospects.***

Before obtaining marketing approval from regulatory authorities for the sale of our product candidates, we must conduct extensive clinical studies to demonstrate the safety, purity, potency and efficacy of the product candidates in humans, Before we can initiate clinical trials for our preclinical product candidates, we must submit the results of preclinical studies to the FDA or comparable foreign regulatory authorities along with other information, including information about product candidate chemistry, manufacturing and controls and our proposed clinical trial protocol, as part of an IND application or similar regulatory submission. The FDA or comparable foreign regulatory authorities may require us to conduct additional preclinical studies for any product candidate before it allows us to initiate clinical trials under any IND or similar regulatory submission, which may lead to delays and increase the costs of our preclinical development programs. Moreover, even if these trials begin, issues may arise that could cause regulatory authorities to suspend or terminate such clinical trials. Any delays in the commencement or completion of our ongoing and planned clinical trials for our current and any future product candidate could significantly affect our product development timelines and product development costs.

We do not know whether our planned trials will begin on time or be completed on schedule, if at all. The commencement and completion of clinical trials can be delayed for a number of reasons, including delays related to:

- inability to generate sufficient preclinical, toxicology, or other in vivo or in vitro data to support the initiation or continuation of clinical trial;
- obtaining regulatory authorizations to commence a trial or reaching a consensus with regulatory authorities on trial design;
- the FDA or comparable foreign regulatory authorities disagreeing as to the design or implementation of our clinical studies;
- any failure or delay in reaching an agreement with CROs and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- delays in identifying, recruiting and training suitable clinical investigators;
- obtaining approval from one or more institutional review boards (IRBs) at clinical trial sites;
- IRBs refusing to approve, suspending or terminating the trial at an investigational site, precluding enrollment of additional subjects, or withdrawing their approval of the trial;
- changes to the clinical trial protocol;
- clinical sites deviating from the trial protocol or dropping out of a trial;
- failure by us or our CROs to perform in accordance with good clinical practice (GCP) requirements or applicable regulatory guidelines in other countries;
- manufacturing sufficient quantities of product candidate or obtaining sufficient quantities of combination therapies for use in clinical trials;
- subjects failing to enroll or remain in our trials at the rate we expect, or failing to return for post-treatment follow-up, including subjects failing to remain in our trials due to movement restrictions, heath reasons or otherwise resulting from the COVID-19 pandemic;
- patients choosing alternative treatments for the indications for which we are developing our product candidates, or participating in competing clinical trials;
- lack of adequate funding to continue the clinical trials or costs being greater than we anticipate;
- subjects experiencing severe or unexpected drug-related adverse effects;
- occurrence of serious adverse events in trials of the same class of agents conducted by other companies;
- selection of clinical endpoints that require prolonged periods of clinical observation or analysis of the resulting data;
- transfer of manufacturing processes to larger-scale facilities operated by a contract manufacturing organization (CMO), delays or failure by our CMOs or us to make any necessary changes to such manufacturing process, or failure of our CMOs to product clinical trial materials in accordance with current good manufacturing (cGMP) regulations or other applicable requirements; and
- third parties being unwilling or unable to satisfy their contractual obligations to us in a timely manner.

In addition, disruptions caused by the COVID-19 pandemic may increase the likelihood that we encounter such difficulties or delays in initiating, enrolling, conducting or completing our planned and ongoing clinical trials.

Clinical trials must be conducted in accordance with the FDA and other applicable regulatory authorities' legal requirements, regulations or guidelines, and are subject to oversight by these governmental agencies and Ethics Committees or IRBs at the medical institutions where the clinical trials are conducted. We could also encounter delays if a clinical trial is suspended or terminated by us, by the IRBs of the institutions in which such trials are being conducted, by a Data Safety Monitoring Board for such trial or by the FDA or comparable foreign regulatory authorities. Such authorities may impose such a suspension or termination due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or comparable foreign regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. In addition, changes in regulatory requirements and policies may occur, and we may need to amend clinical trial protocols to comply with these changes. Amendments may require us to resubmit our clinical trial protocols to IRBs for reexamination, which may impact the costs, timing or successful completion of a clinical trial.

Further, our conduct of clinical trials in foreign countries presents additional risks that may delay completion of our clinical trials. These risks include the failure of enrolled patients in foreign countries to adhere to clinical protocol as a result of differences in healthcare services or cultural customs, managing additional administrative burdens associated with foreign regulatory schemes, as well as political and economic risks relevant to such foreign countries.

Moreover, principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and receive compensation in connection with such services. Under certain circumstances, we may be required to report some of these relationships to the FDA or comparable foreign regulatory authorities. The FDA or comparable foreign regulatory authority may conclude that a financial relationship between us and a principal investigator has created a conflict of interest or otherwise affected interpretation of the study. The FDA or comparable foreign regulatory authority may therefore question the integrity of the data generated at the applicable clinical trial site and the utility of the clinical trial itself may be jeopardized. This could result in a delay in approval, or rejection, of our marketing applications by the FDA or comparable foreign regulatory authority, as the case may be, and may ultimately lead to the denial of marketing approval of one or more of our product candidates.

In addition, many of the factors that cause, or lead to, the termination or suspension of, or a delay in the commencement or completion of, clinical trials may also ultimately lead to the denial of regulatory approval of a product candidate. We may make formulation or manufacturing changes to our product candidates, in which case we may need to conduct additional preclinical studies to bridge our modified product candidates to earlier versions. Any delays to our clinical trials that occur as a result could shorten any period during which we may have the exclusive right to commercialize our product candidates and our competitors may be able to bring products to market before we do, and the commercial viability of our product candidates could be significantly reduced. Any of these occurrences may harm our business, financial condition and prospects significantly.

***We may find it difficult to enroll patients in our clinical trials. If we encounter difficulties enrolling subjects in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.***

We may not be able to initiate or continue clinical trials for our product candidates if we are unable to identify and enroll a sufficient number of eligible patients to participate in these trials as required by the FDA or similar regulatory authorities outside the United States. Subject enrollment, a significant factor in the timeline of clinical trials, is affected by many factors including the size and characteristics of the patient population, the proximity of patients to clinical sites, the eligibility and exclusion criteria for the trial, the design of the clinical trial, the risk that enrolled patients will not complete a clinical trial, our ability to recruit clinical trial

investigators with the appropriate competencies and experience, competing clinical trials and clinicians' and patients' perceptions as to the potential advantages and risks of the product candidate being studied in relation to other available therapies, including any new products that may be approved for the indications we are investigating as well as any product candidates under development. We will be required to identify and enroll a sufficient number of subjects for each of our clinical trials. Potential subjects for any planned clinical trials may not be adequately diagnosed or identified with the diseases which we are targeting or may not meet the entry criteria for such trials. In particular, because certain of our product candidates are focused on patients with specific molecular alterations within the RAS/MAPK pathway, our ability to enroll eligible patients may be limited or may result in slower enrollment than we anticipate. We also may encounter difficulties in identifying and enrolling patients with a stage of disease appropriate for our planned clinical trials and monitoring such patients adequately during and after treatment. Additionally, other pharmaceutical companies targeting these same types of cancer are recruiting clinical trial patients from these patient populations, which may make it more difficult to fully enroll our clinical trials. We may not be able to initiate or continue clinical trials if we are unable to locate a sufficient number of eligible subjects to participate in the clinical trials required by the FDA or comparable foreign regulatory authorities. In addition, the process of finding and diagnosing patients may prove costly. The timing of our clinical trials depends, in part, on the speed at which we can recruit patients to participate in our trials, as well as completion of required follow-up periods. The eligibility criteria of our clinical trials, once established, will further limit the pool of available trial participants. If patients are unwilling to participate in our trials for any reason, including the existence of concurrent clinical trials for similar patient populations, the availability of approved therapies or as a result of the COVID-19 pandemic, or we otherwise have difficulty enrolling a sufficient number of patients, the timeline for recruiting subjects, conducting studies and obtaining regulatory approval of our product candidates may be delayed. Additionally, because our clinical trials are in patients with relapsed/refractory cancer, the patients are typically in the late stages of their disease and may experience disease progression independent from our product candidates, making them unevaluable for purposes of the clinical trial and requiring additional patient enrollment. Our inability to enroll a sufficient number of subjects for any of our future clinical trials would result in significant delays or may require us to abandon one or more clinical trials altogether. In addition, we expect to rely on CROs and clinical trial sites to ensure proper and timely conduct of our future clinical trials and, while we have entered into agreements governing their services, we have limited influence over their actual performance. We cannot assure you that our assumptions used in determining expected clinical trial timelines are correct or that we will not experience delays in enrollment, which would result in the delay of completion of such trials beyond our expected timelines.

***Use of our product candidates could be associated with side effects, adverse events or other properties or safety risks, which could delay or preclude approval, cause us to suspend or discontinue clinical trials, abandon a product candidate, limit the commercial profile of an approved label or result in other significant negative consequences that could severely harm our business, prospects, operating results and financial condition.***

As is the case with oncology drugs generally, it is likely that there may be side effects and adverse events associated with our product candidates' use. Results of our clinical trials could reveal a high and unacceptable severity and prevalence of side effects or unexpected characteristics. Undesirable side effects caused by our product candidates when used alone or in combination with other approved or investigational drugs or biologics could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label, or lead to the delay or denial of regulatory approval by the FDA or comparable foreign regulatory authorities. The drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete the trial or result in potential product liability claims. Any of these occurrences may harm our business, financial condition and prospects significantly.

Moreover, if our product candidates are associated with undesirable side effects in clinical trials or have characteristics that are unexpected, we may elect to abandon their development or limit their development to more narrow uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective, which may limit the commercial expectations for the product candidate if approved. For example, ophthalmic toxicities have been observed during treatment with MEK-targeted agents and also occur with ERK inhibitors, and reversible retinopathy is a well-known MEK/ERK class effect. Skin toxicities have also been noted as a class effect of inhibitors of RAF, MEK, and ERK. Both skin and ophthalmic treatment-related adverse events were observed in the completed Phase 1 trial of ERAS-007, consistent with these class effects. Gastrointestinal toxicities are associated with the use of MEK/ERK inhibitors and SHP2 inhibitors, whereas hematological toxicities are more commonly associated with SHP2 inhibitors. Furthermore, skin and gastrointestinal side effects represent overlapping toxicities of ERK inhibitors and SHP2 inhibitors with EGFR inhibitors and BRAF inhibitors. Therefore, unacceptable enhancement of certain toxicities may be seen when our product candidates are combined with standard of care therapies, or when they are used as single agents. We may also be required to modify our development and clinical trial plans based on findings in our ongoing clinical trials. Many compounds that initially showed promise in early-stage testing for treating cancer have later been found to cause side effects that prevented further development of the compound. In addition, regulatory authorities may draw different conclusions or require additional testing to confirm these determinations.

It is possible that as we test our product candidates in larger, longer and more extensive clinical trials, including with different dosing regimens, or as the use of these product candidates becomes more widespread if they receive regulatory approval, illnesses, injuries, discomforts and other adverse events that were observed in earlier trials, as well as conditions that did not occur or went undetected in previous trials, may be reported by subjects. If such side effects become known later in development or upon approval, if any, such findings may harm our business, financial condition and prospects significantly.

In addition, we plan to study our product candidates in combination with other therapies, including those that are also known to act on the RAS/MAPK pathway, which may exacerbate adverse events associated with such product candidates. Patients treated with our product candidates may also be undergoing surgical, radiation and chemotherapy treatments, which can cause side effects or adverse events that are unrelated to our product candidates but may still impact the success of our clinical trials. The inclusion of critically ill patients in our clinical trials may result in deaths or other adverse medical events due to other therapies or medications that such patients may be using or due to the gravity of such patients' illnesses. For example, it is expected that some of the patients enrolled in our clinical trials will die or experience major clinical events either during the course of our clinical trials or after participating in such trials, which has occurred in the past.

In addition, if one or more of our product candidates receives marketing approval, and we or others later identify undesirable side effects caused by such product, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw, suspend or limit approvals of such product, or seek an injunction against its manufacture or distribution;
- we may be required to recall a product or change the way such product is administered to patients;
- regulatory authorities may require additional warnings on the label, such as a "black box" warning or a contraindication;
- we may be required to implement a Risk Evaluation and Mitigation Strategy (REMS) or create a medication guide outlining the risks of such side effects for distribution to patients;

- we may be required to change the way a product is distributed or administered, conduct additional clinical trials or change the labeling of a product or be required to conduct additional post-marketing studies or surveillance;
- we could be sued and held liable for harm caused to patients;
- sales of the product may decrease significantly or the product could become less competitive; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate, if approved, and could significantly harm our business, results of operations and prospects.

***As an organization, we have never completed any clinical trials and may be unable to do so for any of our product candidates.***

We are early in our development efforts for our product candidates, have never completed any clinical trials and we will need to successfully complete our Phase 1 clinical trials and later-stage and pivotal clinical trials in order to obtain FDA or comparable foreign regulatory approval to market our product candidates. Carrying out later-stage clinical trials and the submission of a successful NDA or BLA is a complicated process. A Phase 1 clinical trial for ERAS-007 was completed prior to our acquisition of this product candidate, and we are currently conducting our first Phase 1 clinical trial for ERAS-601 and we plan to conduct multiple Phase 1b/2 trials for ERAS-007. We are only beginning to conduct clinical trials for our product candidates, and we have limited experience as a company in preparing, submitting and prosecuting regulatory filings and have not previously submitted an NDA, BLA or other comparable foreign regulatory submission for any product candidate. We are also conducting and plan to conduct a number of clinical trials for multiple product candidates in parallel over the next several years, which may be a difficult process to manage with our limited resources and which may divert the attention of management. In addition, we have had limited interactions with the FDA and cannot be certain how many additional clinical trials of our product candidates will be required or how such trials should be designed. Consequently, we may be unable to successfully and efficiently execute and complete necessary clinical trials in a way that leads to regulatory submission and approval of any of our product candidates. We may require more time and incur greater costs than our competitors and may not succeed in obtaining regulatory approvals of product candidates that we develop. Failure to commence or complete, or delays in, our planned clinical trials could prevent us from or delay us in submitting NDAs and BLAs for and commercializing our product candidates.

***We intend to develop our product candidates in combination with other therapies, which exposes us to additional risks.***

We intend to develop our current and any future product candidates for use in combination with one or more currently approved cancer therapies. Even if any product candidate we develop was to receive marketing approval or be commercialized for use in combination with other existing therapies, we would continue to bear the risks that the FDA or similar foreign regulatory authorities could revoke approval of the therapy used in combination with our product candidate or that safety, efficacy, manufacturing or supply issues could arise with these existing therapies. Combination therapies are commonly used for the treatment of cancer, and we would be subject to similar risks if we develop any of our product candidates for use in combination with other drugs or biologics or for indications other than cancer. Developing combination therapies using approved therapeutics, as we plan to do for our product candidates, also exposes us to additional clinical risks, such as the requirement that we demonstrate the safety and efficacy of each active component of any combination regimen we may develop.

In addition, we are also evaluating the combination of ERAS-007 and ERAS-601 with each other, and may also evaluate our product candidates in combination with one or more other cancer therapies that have not yet been approved for marketing by the FDA or similar foreign regulatory authorities. We may not be able to market and sell any product candidate we develop in combination with any such unapproved cancer therapies that do not ultimately obtain marketing approval.

If the FDA or similar foreign regulatory authorities do not approve these other combination agents or revoke their approval of, or if safety, efficacy, manufacturing, or supply issues arise with the drugs or biologics we choose to evaluate in combination with our product candidates, we may be unable to obtain approval of or market our product candidates for combination therapy regimens.

Additionally, if the third-party providers of therapies or therapies in development used in combination with our product candidates are unable to produce sufficient quantities for clinical trials or for commercialization of our product candidates, or if the cost of combination therapies are prohibitive, our development and commercialization efforts would be impaired, which would have an adverse effect on our business, financial condition, results of operations and growth prospects.

***Because we have a number of product candidates and development programs in our pipeline, we may expend our limited resources to pursue a particular product candidate and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.***

Because we have limited financial and managerial resources, we focus on specific product candidates, development programs and indications. We are also conducting and plan to conduct several clinical trials for multiple product candidates in parallel over the next several years, which may make our decision as to which product candidates to focus on more difficult. As a result, we may forgo or delay pursuit of opportunities with other product candidates that could have had greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable product candidates. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaborations, licenses and other similar arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate.

Additionally, we may pursue additional in-licenses or acquisitions of development-stage assets or programs, which entails additional risk to us. Identifying, selecting and acquiring promising product candidates requires substantial technical, financial and human resources expertise. Efforts to do so may not result in the actual acquisition or license of a particular product candidate, potentially resulting in a diversion of our management's time and the expenditure of our resources with no resulting benefit. For example, if we are unable to identify programs that ultimately result in approved products, we may spend material amounts of our capital and other resources evaluating, acquiring and developing products that ultimately do not provide a return on our investment.

***We may not be able to obtain or maintain orphan designations for any of our product candidates, and we may be unable to maintain the benefits associated with orphan drug designation, including the potential for market exclusivity.***

We may seek orphan designation for some of our product candidates; however, we may never receive such designations. Under the Orphan Drug Act of 1983, the FDA may designate a product as an orphan product candidate if it is intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals in the United States, or a patient population of greater than 200,000

individuals in the United States, but for which there is no reasonable expectation that the cost of developing the drug or biologic will be recovered from sales in the United States. Orphan drug designation must be requested before submitting an NDA or BLA.

In the United States, orphan designation entitles a party to financial incentives such as opportunities for grant funding toward clinical trial costs, tax advantages and user-fee waivers. In addition, if a product candidate that has orphan designation subsequently receives the first FDA approval for the disease for which it has such designation, the product is entitled to orphan drug exclusivity, which means that the FDA may not approve any other applications, including an NDA or BLA, to market the same product for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity or where the manufacturer is unable to assure sufficient product quantity.

Even if we obtain orphan drug exclusivity for a product, such exclusivity may not effectively protect the product from competition because different drugs and biologics can be approved for the same condition. Even after an orphan drug or biologic is approved, the FDA or comparable foreign regulatory authority can subsequently approve the same drug or biologic for the same condition if such regulatory authority concludes that the later drug or biologic is clinically superior because it is shown to be safer, more effective or makes a major contribution to patient care. Orphan drug exclusivity may also be lost if the FDA later determines that the initial request for designation was materially defective, or if the sponsor seeks approval for an indication broader than the designated indication. In addition, orphan drug exclusivity does not prevent the FDA from approving competing drugs or biologics for the same or similar indication containing a different active ingredient. In addition, if a subsequent drug or biologic is approved for marketing for the same or a similar indication as any of our product candidates that receive marketing approval, we may face increased competition and lose market share regardless of orphan drug exclusivity. Orphan designation neither shortens the development time or regulatory review time of a drug nor gives the drug any advantage in the regulatory review or approval process.

***We are currently conducting and may in the future conduct certain of our clinical trials for our product candidates outside of the United States. However, the FDA and other foreign equivalents may not accept data from such trials, in which case our development plans will be delayed, which could materially harm our business.***

We are currently conducting and may in the future conduct one or more of our clinical trials for our product candidates outside the United States. Although the FDA may accept data from clinical trials conducted outside the United States, acceptance of this data is subject to certain conditions imposed by the FDA. Where data from foreign clinical trials are intended to serve as the basis for marketing approval in the United States, the FDA will not approve the application on the basis of foreign data alone unless those data are applicable to the US population and US medical practice; the studies were performed by clinical investigators of recognized competence; and the data are considered valid without the need for an on-site inspection by the FDA or, if the FDA considers such an inspection to be necessary, the FDA is able to validate the data through an on-site inspection or other appropriate means. For studies that are conducted only at sites outside of the United States and not subject to an IND, the FDA requires the clinical trial to have been conducted in accordance with GCPs, and the FDA must be able to validate the data from the clinical trial through an on-site inspection if it deems such inspection necessary. For such studies not subject to an IND, the FDA generally does not provide advance comment on the clinical protocols for the studies, and therefore there is an additional potential risk that the FDA could determine that the study design or protocol for a non-US clinical trial was inadequate, which could require us to conduct additional clinical trials. There can be no assurance the FDA will accept data from clinical trials conducted outside of the United States. If the FDA does not accept data from our clinical trials of our product candidates, it would likely result in the need for additional clinical trials, which would be costly and time-consuming and delay or permanently halt our development of our product candidates.

Conducting clinical trials outside the United States also exposes us to additional risks, including risks associated with:

- additional foreign regulatory requirements;
- foreign exchange fluctuations;
- compliance with foreign manufacturing, customs, shipment and storage requirements;
- inconsistent standards for reporting and evaluating clinical data and adverse events;
- cultural differences in medical practice and clinical research; and
- diminished protection of intellectual property in some countries.

***Interim, topline and preliminary data from our clinical trials and preclinical studies that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.***

From time to time, we may publicly disclose interim, top-line, or preliminary data from our clinical trials and preclinical studies, which is based on a preliminary analysis of then-available data, and the results and related findings and conclusions are subject to change following a full analyses of all data related to the particular trial. We also make assumptions, estimations, calculations and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. As a result, the interim, top-line, or preliminary results that we report may differ from future results of the same trials, or different conclusions or considerations may qualify such results, once additional data have been received and fully evaluated. Top-line data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, top-line data should be viewed with caution until the final data are available. We may also disclose interim data from our clinical trials. Interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. Adverse differences between interim, top-line, or preliminary data and final data could significantly harm our business prospects.

Further, others, including regulatory agencies, may not accept or agree with our assumptions, estimates, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular program, the approvability or commercialization of the particular product candidate or product and our business in general. In addition, the information we choose to publicly disclose regarding a particular study or clinical trial is based on what is typically extensive information, and you or others may not agree with what we determine is the material or otherwise appropriate information to include in our disclosure, and any information we determine not to disclose may ultimately be deemed significant with respect to future decisions, conclusions, views, activities or otherwise regarding a particular drug, product candidate or our business. If the interim, top-line, or preliminary data that we report differ from actual results, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for and commercialize our product candidates, our business, operating results, prospects or financial condition may be harmed.

***We may attempt to secure approval from the FDA or comparable foreign regulatory authorities through the use of accelerated approval pathways. If we are unable to obtain such approval, we may be required to conduct additional clinical trials beyond those that we contemplate, which could increase the expense of obtaining, and delay the receipt of, necessary marketing approvals. Even if we receive accelerated approval from the FDA, if our confirmatory trials do not verify clinical benefit, or if we do not comply with rigorous post-marketing requirements, the FDA may seek to withdraw accelerated approval.***

We may in the future seek an accelerated approval for our one or more of our product candidates. Under the accelerated approval program, the FDA may grant accelerated approval to a product candidate designed to treat a serious or life-threatening condition that provides meaningful therapeutic benefit over available therapies upon a determination that the product candidate has an effect on a surrogate endpoint or intermediate clinical endpoint that is reasonably likely to predict clinical benefit. The FDA considers a clinical benefit to be a positive therapeutic effect that is clinically meaningful in the context of a given disease, such as irreversible morbidity or mortality. For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit, but is not itself a measure of clinical benefit. An intermediate clinical endpoint is a clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit. The accelerated approval pathway may be used in cases in which the advantage of a new drug or biologic over available therapy may not be a direct therapeutic advantage, but is a clinically important improvement from a patient and public health perspective. If granted, accelerated approval is usually contingent on the sponsor's agreement to conduct, in a diligent manner, additional post- approval confirmatory studies to verity and describe the drug's clinical benefit. If such post-approval studies fail to confirm the drug or biologic's clinical benefit or are not completed in a timely manner, the FDA may withdraw its approval of the drug or biologic.

Prior to seeking accelerated approval for any of our product candidates, we intend to seek feedback from the FDA and will otherwise evaluate our ability to seek and receive accelerated approval. There can be no assurance that after our evaluation of the feedback and other factors we will decide to pursue or submit an NDA or BLA for accelerated approval or any other form of expedited development, review or approval. Similarly, there can be no assurance that after subsequent FDA feedback we will continue to pursue or apply for accelerated approval or any other form of expedited development, review or approval program, even if we initially decide to do so. Furthermore, if we decide to submit an application for accelerated approval or receive an expedited regulatory designation (e.g., breakthrough therapy designation) for our product candidates, there can be no assurance that such submission or application will be accepted or that any expedited development, review or approval will be granted on a timely basis, or at all. The FDA or other comparable foreign regulatory authorities could also require us to conduct further studies prior to considering our application or granting approval of any type. A failure to obtain accelerated approval or any other form of expedited development, review or approval for our product candidate would result in a longer time period to commercialization of such product candidate, if any, could increase the cost of development of such product candidate and could harm our competitive position in the marketplace.

***Disruptions at the FDA and other government agencies caused by funding shortages or global health concerns could hinder their ability to hire, retain or deploy key leadership and other personnel, or otherwise prevent new or modified products from being developed, approved or commercialized in a timely manner or at all, which could negatively impact our business.***

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, statutory, regulatory and policy changes, the FDA's ability to hire and retain key personnel and accept the payment of user fees, and other events that may otherwise affect the FDA's ability to perform routine functions. Average review times at the agency have fluctuated in recent years. In

addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable. Disruptions at the FDA and other agencies may also slow the time necessary for new drugs and biologics or modifications to approved drugs and biologics to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, including for 35 days beginning on December 22, 2018, the US government has shut down several times and certain regulatory agencies, such as the FDA, have had to furlough critical FDA employees and stop critical activities.

Separately, in response to the COVID-19 pandemic, on March 10, 2020 the FDA announced its intention to postpone most inspections of foreign manufacturing facilities and products, and on March 18, 2020 the FDA temporarily postponed routine surveillance inspections of domestic manufacturing facilities. Subsequently, on July 10, 2020, the FDA announced its intention to resume certain on-site inspections of domestic manufacturing facilities subject to a risk-based prioritization system. The FDA intends to use this risk-based assessment system to identify the categories of regulatory activity that can occur within a given geographic area, ranging from mission critical inspections to resumption of all regulatory activities. Regulatory authorities outside the United States may adopt similar restrictions or other policy measures in response to the COVID-19 pandemic. If a prolonged government shutdown occurs, or if global health concerns continue to prevent the FDA or other regulatory authorities from conducting their regular inspections, reviews or other regulatory activities, it could significantly impact the ability of the FDA or other regulatory authorities to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

***If we are required by the FDA to obtain approval of a companion diagnostic test in connection with approval of any of our product candidates, and we do not obtain or face delays in obtaining FDA approval of a diagnostic device, we will not be able to commercialize such product candidate and our ability to generate revenue will be materially impaired.***

If safe and effective use of any of our product candidates depends on an *in vitro* diagnostic that is not otherwise commercially available, then the FDA generally may require approval or clearance of that diagnostic, known as a companion diagnostic, at the same time that the FDA approves our product candidates, if at all. According to FDA guidance, if the FDA determines that a companion diagnostic device is essential to the safe and effective use of a novel therapeutic product or indication, the FDA generally will not approve the therapeutic product or new therapeutic product indication if the companion diagnostic is not also approved or cleared for that indication. If a satisfactory companion diagnostic is not commercially available, we may be required to develop or obtain one that would be subject to regulatory approval requirements. The process of obtaining or creating such diagnostics is time-consuming and costly.

Companion diagnostics are developed in conjunction with clinical programs for the associated product and are subject to regulation as medical devices by the FDA and comparable regulatory authorities, and, to date, the FDA has required premarket approval of all companion diagnostics for cancer therapies. The approval of a companion diagnostic as part of the therapeutic product's labeling limits the use of the therapeutic product to only those patients who express the specific genetic alteration that the companion diagnostic was developed to detect.

If the FDA or a comparable regulatory authority requires approval of a companion diagnostic for any of our product candidates, whether before or after such candidate obtains marketing approval, if ever, we, and/or future collaborators, may encounter difficulties in developing and obtaining approval for such companion diagnostic. Any delay or failure by us or third-party collaborators to develop or obtain regulatory approval of a companion diagnostic could delay or prevent approval or continued marketing of such product candidate. We may also experience delays in developing a sustainable, reproducible and scalable manufacturing process for the companion diagnostic or in transferring that process to commercial partners or negotiating insurance

reimbursement plans, all of which may prevent us from completing our clinical trials or commercializing our product candidate, if approved, on a timely or profitable basis, if at all.

## Risks related to our reliance on third parties

***We rely on third parties to conduct our clinical trials and preclinical studies. If these third parties do not successfully carry out their contractual duties, comply with applicable regulatory requirements or meet expected deadlines, our development programs and our ability to seek or obtain regulatory approval for or commercialize our product candidates may be delayed.***

We are dependent on third parties to conduct our clinical trials and preclinical studies. Specifically, we have used and relied on, and intend to continue to use and rely on, medical institutions, clinical investigators, CROs and consultants to conduct our preclinical studies and clinical trials in accordance with our clinical protocols and regulatory requirements. These CROs, investigators and other third parties play a significant role in the conduct and timing of these trials and subsequent collection and analysis of data. While we have and will have agreements governing the activities of our third-party contractors, we have limited influence over their actual performance. Nevertheless, we are responsible for ensuring that each of our clinical trials is conducted in accordance with the applicable protocol and legal, regulatory and scientific standards, and our reliance on our CROs and other third parties does not relieve us of our regulatory responsibilities. We and our CROs are required to comply with GCP requirements, which are regulations and guidelines enforced by the FDA and comparable foreign regulatory authorities for all of our product candidates in clinical development. Regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of our CROs or trial sites fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable, and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. In addition, our clinical trials must be conducted with products produced under cGMP regulations. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process.

There is no guarantee that any of our CROs, investigators or other third parties will devote adequate time and resources to such trials or studies or perform as contractually required. If any of these third parties fail to meet expected deadlines, adhere to our clinical protocols or meet regulatory requirements, or otherwise performs in a substandard manner, our clinical trials may be extended, delayed or terminated. In addition, many of the third parties with whom we contract may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials or other development activities that could harm our competitive position. In addition, principal investigators for our clinical trials are expected to serve as scientific advisors or consultants to us from time to time and may receive cash or equity compensation in connection with such services. If these relationships and any related compensation result in perceived or actual conflicts of interest, or the FDA concludes that the financial relationship may have affected the interpretation of the study, the integrity of the data generated at the applicable clinical trial site may be questioned and the utility of the clinical trial itself may be jeopardized, which could result in the delay or rejection by the FDA of any NDA or BLA we submit. Any such delay or rejection could prevent us from commercializing our product candidates.

Our CROs have the right to terminate their agreements with us in the event of an uncured material breach. In addition, some of our CROs have an ability to terminate their respective agreements with us if it can be reasonably demonstrated that the safety of the subjects participating in our clinical trials warrants such termination, if we make a general assignment for the benefit of our creditors or if we are liquidated. If any of our relationships with these third parties terminate, we may not be able to enter into arrangements with alternative third parties on commercially reasonable terms or at all. Switching or adding additional CROs,

investigators and other third parties involves additional cost and requires our management's time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines. Though we carefully manage our relationships with our CROs, investigators and other third parties, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects.

***We rely on third parties for the manufacture of our product candidates for clinical and preclinical development and expect to continue to do so for the foreseeable future. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or products or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.***

We do not own or operate manufacturing facilities and have no plans to develop our own clinical or commercial-scale manufacturing capabilities. We rely, and expect to continue to rely, on third parties for the manufacture of our product candidates and related raw materials for clinical and preclinical development, as well as for commercial manufacture if any of our product candidates receive marketing approval. The facilities used by third-party manufacturers to manufacture our product candidates must be approved by the FDA and any comparable foreign regulatory authority pursuant to inspections that will be conducted after we submit an NDA or BLA to the FDA or any comparable submission to a foreign regulatory authority. We do not control the manufacturing process of, and are completely dependent on, third-party manufacturers for compliance with cGMP requirements for manufacture of products. If these third-party manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or any comparable foreign regulatory authority, they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities. In addition, we have no control over the ability of third-party manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or any comparable foreign regulatory authority does not approve these facilities for the manufacture of our product candidates or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our product candidates, if approved. Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, seizures or recalls of product candidates or products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our products.

Our or a third party's failure to execute on our manufacturing requirements on commercially reasonable terms and in compliance with cGMP or other regulatory requirements could adversely affect our business in a number of ways, including:

- an inability to initiate clinical trials of our product candidates under development;
- delay in submitting regulatory applications, or receiving marketing approvals, for our product candidates;
- additional inspections by regulatory authorities of third-party manufacturing facilities or our manufacturing facilities;
- requirements to cease development or to recall batches of our product candidates; and
- in the event of approval to market and commercialize our product candidates, an inability to meet commercial demands for our product candidates or any other future product candidates.

In addition, we do not have any long-term commitments or supply agreements with our third-party manufacturers. We may be unable to establish any supply agreements with our third-party manufacturers or to

do so on acceptable terms, which increases the risk of timely obtaining sufficient quantities of our product candidates or such quantities at an acceptable cost. Even if we are able to establish agreements with third-party manufacturers, reliance on third-party manufacturers entails additional risks, including:

- failure of third-party manufacturers to comply with regulatory requirements and maintain quality assurance;
- breach of the manufacturing agreement by the third party;
- failure to manufacture our product according to our specifications;
- failure to manufacture our product according to our schedule or at all;
- misappropriation of our proprietary information, including our trade secrets and know-how; and
- termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us.

Our product candidates and any products that we may develop may compete with other product candidates and products for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for us, in particular due to the high potency of our product candidates.

Any performance failure on the part of our existing or future manufacturers could delay clinical development or marketing approval, and any related remedial measures may be costly or time-consuming to implement. We do not currently have arrangements in place for redundant supply or a second source for all required raw materials used in the manufacture of our product candidates. If our existing or future third-party manufacturers cannot perform as agreed, we may be required to replace such manufacturers and we may be unable to replace them on a timely basis or at all. In particular, any replacement of our manufacturers could require significant effort and expertise because there may be a limited number of qualified replacements. In some cases, the technical skills or technology required to manufacture our product candidates may be unique or proprietary to the original manufacturer and we may have difficulty transferring such skills or technology to another third-party and a feasible alternative may not exist. In addition, certain of our product candidates and our own proprietary methods have never been produced or implemented outside of our company, and we may therefore experience delays to our development programs if and when we attempt to establish new third-party manufacturing arrangements for these product candidates or methods.

Our current and anticipated future dependence upon others for the manufacture of our product candidates or products may adversely affect our future profit margins and our ability to commercialize any products that receive marketing approval on a timely and competitive basis.

***Our reliance on third parties requires us to share our trade secrets, which increases the possibility that a competitor will discover them or that our trade secrets will be misappropriated or disclosed.***

Because we currently rely on third parties to manufacture our product candidates and to perform quality testing, we must, at times, share our proprietary technology and confidential information, including trade secrets, with them. We seek to protect our proprietary technology, in part, by entering into confidentiality agreements, and, if applicable, material transfer agreements, collaborative research agreements, consulting agreements or other similar agreements with our collaborators, advisors, employees and consultants prior to beginning research or disclosing proprietary information. These agreements typically limit the rights of the third parties to use or disclose our confidential information. Despite the contractual provisions employed when working with third parties, the need to share trade secrets and other confidential information increases the risk that such trade secrets become known by our competitors, are intentionally or inadvertently incorporated into the technology of others or are disclosed or used in violation of these agreements. Given that our proprietary position is based, in part, on our know-how and trade secrets and despite our efforts to protect our trade secrets, a competitor’s discovery of our proprietary technology and confidential information or other

unauthorized use or disclosure would impair our competitive position and may have a material adverse effect on our business, financial condition, results of operations and prospects.

***We may seek to enter into collaborations, licenses and other similar arrangements and may not be successful in doing so, and even if we are, we may relinquish valuable rights and may not realize the benefits of such relationships.***

We may seek to enter into collaborations, joint ventures, licenses and other similar arrangements for the development or commercialization of our product candidates, due to capital costs required to develop or commercialize the product candidate or manufacturing constraints. For example, we are collaborating with Emerge Life Sciences PTE, LTD. (ELS) on large molecule capabilities. Such collaborative discovery efforts may not yield additional development or product candidates for our pipeline. We may not be successful in our efforts to establish or maintain such collaborations for our product candidates because our research and development pipeline may be insufficient, our product candidates may be deemed to be at too early of a stage of development for collaborative effort or third parties may not view our product candidates as having the requisite potential to demonstrate safety and efficacy or significant commercial opportunity. In addition, we face significant competition in seeking appropriate strategic partners, and the negotiation process can be time-consuming and complex. We may have to relinquish valuable rights to our future revenue streams, research programs or product candidates, or grant licenses on terms that may not be favorable to us, as part of any such arrangement, and such arrangements may restrict us from entering into additional agreements with other potential collaborators. We cannot be certain that, following a collaboration, license or strategic transaction, we will achieve an economic benefit that justifies such transaction.

Even if we are successful in our efforts to establish such collaborations, the terms that we agree upon may not be favorable to us, and we may not be able to maintain such collaborations if, for example, the development or approval of a product candidate is delayed, the safety of a product candidate is questioned or the sales of an approved product candidate are unsatisfactory.

In addition, any potential future collaborations may be terminable by our strategic partners, and we may not be able to adequately protect our rights under these agreements. Furthermore, strategic partners may negotiate for certain rights to control decisions regarding the development and commercialization of our product candidates, if approved, and may not conduct those activities in the same manner as we do. Any termination of collaborations we enter into in the future, or any delay in entering into collaborations related to our product candidates, could delay the development and commercialization of our product candidates and reduce their competitiveness if they reach the market, which could have a material adverse effect on our business, financial condition and results of operations.

## Risks related to commercialization of our product candidates

***Even if we receive regulatory approval for any product candidate, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense.***

Any regulatory approvals that we may receive for our product candidates will require the submission of reports to regulatory authorities and surveillance to monitor the safety and efficacy of the product, may contain significant limitations related to use restrictions for specified age groups, warnings, precautions or contraindications, and may include burdensome post-approval study or risk management requirements. For example, the FDA may require a REMS as a condition of approval of our product candidates, which could include requirements for a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. In addition, if the FDA or a comparable foreign regulatory authority approves our product candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion, import,

export and recordkeeping for our products will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMP and GCP requirements for any clinical trials that we conduct post-approval. Manufacturers of approved products and their facilities are subject to continual review and periodic, unannounced inspections by the FDA and other regulatory authorities for compliance with cGMP regulations and standards. Later discovery of previously unknown problems with our products, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of our products, withdrawal of the product from the market or voluntary or mandatory product recalls;
- restrictions on product distribution or use, or requirements to conduct post-marketing studies or clinical trials;
- fines, restitutions, disgorgement of profits or revenue, warning letters, untitled letters or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us or suspension or revocation of approvals;
- product seizure or detention, or refusal to permit the import or export of our products; and
- injunctions or the imposition of civil or criminal penalties.

The occurrence of any event or penalty described above may inhibit our ability to commercialize our product candidates and generate revenue and could require us to expend significant time and resources in response and could generate negative publicity.

The FDA's and other regulatory authorities' policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We also cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. For example, the results of the 2020 US Presidential Election may impact our business and industry. Namely, the Trump administration took several executive actions, including the issuance of a number of Executive Orders, that could impose significant burdens on, or otherwise materially delay, the FDA's ability to engage in routine oversight activities such as implementing statutes through rulemaking, issuance of guidance, and review and approval of marketing applications. It is difficult to predict whether or how these orders will be implemented, or whether they will be rescinded and replaced under the Biden administration. The policies and priorities of a new administration are unknown and could materially impact the regulations governing our product candidates. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may be subject to enforcement action and we may not achieve or sustain profitability.

***The FDA and other regulatory agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses.***

If any of our product candidates are approved and we are found to have improperly promoted off-label uses of those products, we may become subject to significant liability. The FDA and other regulatory agencies strictly regulate the promotional claims that may be made about prescription products, such as our product candidates, if approved. In particular, a product may not be promoted for uses that are not approved by the FDA or such other regulatory agencies as reflected in the product's approved labeling. If we receive marketing approval for a product candidate, physicians may nevertheless prescribe it to their patients in a manner that is inconsistent with the approved label. If we are found to have promoted such off-label uses, we may become

subject to significant liability. The US federal government has levied large civil and criminal fines against companies for alleged improper promotion of off-label use and has enjoined several companies from engaging in off-label promotion. The FDA has also requested that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed. If we cannot successfully manage the promotion of our product candidates, if approved, we could become subject to significant liability, which would materially adversely affect our business and financial condition.

***Our product candidates for which we intend to seek approval as biologic products may face competition sooner than anticipated.***

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act (collectively, the ACA) includes a subtitle called the Biologics Price Competition and Innovation Act of 2009 (BPCIA), which created an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. Under the BPCIA, an application for a highly similar or "biosimilar" product may not be submitted to the FDA until four years following the date that the reference product was first approved by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first approved. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing product containing the sponsor's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of their product. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty. We believe that any of our product candidates approved as a biological product under a BLA should qualify for the 12-year period of exclusivity. However, there is a risk that this exclusivity could be shortened due to congressional action or otherwise, or that the FDA will not consider our product candidates to be reference products for competing products, potentially creating the opportunity for competition sooner than anticipated.

***The commercial success of our product candidates will depend upon the degree of market acceptance of such product candidates by physicians, patients, healthcare payors and others in the medical community.***

Our product candidates may not be commercially successful. Even if any of our product candidates receive regulatory approval, they may not gain market acceptance among physicians, patients, healthcare payors or the medical community. The commercial success of any of our current or future product candidates will depend significantly on the broad adoption and use of the resulting product by physicians and patients for approved indications. The degree of market acceptance of our products will depend on a number of factors, including:

- demonstration of clinical efficacy and safety compared to other more-established products;
- the indications for which our product candidates are approved;
- the limitation of our targeted patient population and other limitations or warnings contained in any FDA-approved labeling;
- acceptance of a new drug for the relevant indication by healthcare providers and their patients;
- the pricing and cost-effectiveness of our products, as well as the cost of treatment with our products in relation to alternative treatments and therapies;
- our ability to obtain and maintain sufficient third-party coverage and adequate reimbursement from government healthcare programs, including Medicare and Medicaid, private health insurers and other third-party payors;

- the willingness of patients to pay all, or a portion of, out-of-pocket costs associated with our products in the absence of sufficient third-party coverage and adequate reimbursement;
- any restrictions on the use of our products, and the prevalence and severity of any adverse effects;
- potential product liability claims;
- the timing of market introduction of our products as well as competitive drugs;
- the effectiveness of our or any of our current or potential future collaborators' sales and marketing strategies; and
- unfavorable publicity relating to the product.

If any product candidate is approved but does not achieve an adequate level of acceptance by physicians, hospitals, healthcare payors or patients, we may not generate sufficient revenue from that product and may not become or remain profitable. Our efforts to educate the medical community and third-party payors regarding the benefits of our products may require significant resources and may never be successful.

***The successful commercialization of our product candidates, if approved, will depend in part on the extent to which governmental authorities and health insurers establish coverage, adequate reimbursement levels and favorable pricing policies. Failure to obtain or maintain coverage and adequate reimbursement for our products could limit our ability to market those products and decrease our ability to generate revenue.***

The availability of coverage and the adequacy of reimbursement by governmental healthcare programs such as Medicare and Medicaid, private health insurers and other third-party payors are essential for most patients to be able to afford prescription medications such as our product candidates, if approved. Our ability to achieve coverage and acceptable levels of reimbursement for our products by third-party payors will have an effect on our ability to successfully commercialize those products. Accordingly, we will need to successfully implement a coverage and reimbursement strategy for any approved product candidate. Even if we obtain coverage for a given product by a third-party payor, the resulting reimbursement payment rates may not be adequate or may require co-payments that patients find unacceptably high. For products administered under the supervision of a physician, obtaining coverage and adequate reimbursement may be particularly difficult because of the higher prices often associated with such drugs. Additionally, separate reimbursement for the product itself or the treatment or procedure in which the product is used may not be available, which may impact physician utilization. We cannot be sure that coverage and reimbursement in the United States, the European Union or elsewhere will be available for any product that we may develop, and any reimbursement that may become available may be decreased or eliminated in the future.

Third-party payors increasingly are challenging prices charged for biopharmaceutical products and services, and many third-party payors may refuse to provide coverage and reimbursement for particular drugs when an equivalent generic drug or a less expensive therapy is available. It is possible that a third-party payor may consider our products as substitutable and only offer to reimburse patients for the less expensive product. Even if we are successful in demonstrating improved efficacy or improved convenience of administration with our products, pricing of existing drugs may limit the amount we will be able to charge for our products. These payors may deny or revoke the reimbursement status of a given product or establish prices for new or existing marketed products at levels that are too low to enable us to realize an appropriate return on our investment in product development. If reimbursement is not available or is available only at limited levels, we may not be able to successfully commercialize our products and may not be able to obtain a satisfactory financial return on products that we may develop. In addition, in the event that we develop companion diagnostic tests for use with our products, once approved, such companion diagnostic tests will require coverage and reimbursement separate and apart from the coverage and reimbursement for their companion pharmaceutical or biological

products. Similar challenges to obtaining coverage and reimbursement applicable to pharmaceutical or biological products will apply to companion diagnostics tests.

There is significant uncertainty related to third-party payor coverage and reimbursement of newly approved products. In the United States, third-party payors, including private and governmental payors, such as the Medicare and Medicaid programs, play an important role in determining the extent to which new drugs will be covered. Some third-party payors may require pre-approval of coverage for new or innovative devices or drug therapies before they will reimburse healthcare providers who use such therapies. It is difficult to predict at this time what third-party payors will decide with respect to the coverage and reimbursement for our products.

Obtaining and maintaining reimbursement status is time-consuming, costly and uncertain. The Medicare and Medicaid programs increasingly are used as models for how private payors and other governmental payors develop their coverage and reimbursement policies for drugs. However, no uniform policy for coverage and reimbursement for products exists among third-party payors in the United States. Therefore, coverage and reimbursement for products can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Furthermore, rules and regulations regarding reimbursement change frequently, in some cases at short notice, and we believe that changes in these rules and regulations are likely.

Outside the United States, international operations are generally subject to extensive governmental price controls and other market regulations, and we believe the increasing emphasis on cost-containment initiatives in Europe and other countries has and will continue to put pressure on the pricing and usage of our products. In many countries, the prices of medical products are subject to varying price control mechanisms as part of national health systems. Other countries allow companies to fix their own prices for medical products but monitor and control company profits. Additional foreign price controls or other changes in pricing regulation could restrict the amount that we are able to charge for our products. Accordingly, in markets outside the United States, the reimbursement for our products may be reduced compared with the United States and may be insufficient to generate commercially reasonable revenue and profits.

Moreover, increasing efforts by governmental and third-party payors in the United States and abroad to cap or reduce healthcare costs may cause such organizations to limit both coverage and the level of reimbursement for newly approved products and, as a result, they may not cover or provide adequate payment for our products. We expect to experience pricing pressures in connection with the sale of any of our products due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs and surgical procedures and other treatments, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products.

***We face significant competition from entities that have developed or may develop product candidates for cancer, including companies developing novel treatments and technology platforms. If our competitors develop technologies or product candidates more rapidly than we do or their technologies are more effective, our business and our ability to develop and successfully commercialize products may be adversely affected.***

The biotechnology and biopharmaceutical industries are characterized by rapid advancing technologies, intense competition and a strong emphasis on proprietary and novel products and product candidates. Our competitors have developed, are developing or may develop products, product candidates and processes competitive with our product candidates. Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future. We believe that a significant number of products are currently under development, and may become commercially available in the future,

for the treatment of indications for which we may attempt to develop product candidates. In particular, there is intense competition in the oncology field. Our competitors include larger and better funded pharmaceutical, biopharmaceutical, biotechnological and therapeutics companies. Moreover, we may also compete with universities and other research institutions who may be active in oncology research and could be in direct competition with us. We also compete with these organizations to recruit management, scientists and clinical development personnel, which could negatively affect our level of expertise and our ability to execute our business plan. We will also face competition in establishing clinical trial sites, enrolling subjects for clinical trials and in identifying and in-licensing new product candidates. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

If any of our product candidates are approved, they will compete with small molecule therapies, biologics, cell-based therapies and traditional chemotherapy, either approved or under development, which are intended to treat the same indications that we are targeting or may target, including through approaches that may prove to be more effective, have fewer side effects, be less costly to manufacture, be more convenient to administer or have other advantages over our product candidates. In addition to competing with other therapies targeting similar indications, there are numerous other companies and academic institutions focused on similar targets as our product candidates and/or different scientific approaches to treating the same indications. We face competition from such companies in seeking any future potential collaborations to partner our product candidates, as well as potentially competing commercially for any approved products.

Specifically, there are also a number of pharmaceutical companies with product candidates in development that target the nodes involving the RAS/MAPK pathway. These include, among others, Amgen, AstraZeneca, Black Diamond Therapeutics, BioMed Valley Discoveries, Boehringer Ingelheim, Deciphera Pharmaceuticals, Eli Lilly, Jacobio Pharmaceuticals (in collaboration with AbbVie), Janssen, Merck, Mirati Therapeutics, Navire Pharma (a subsidiary of BridgeBio), Novartis, Pfizer, Relay Therapeutics (in collaboration with Genentech), Revolution Medicines, Roche/Genentech, Sanofi, and Schrödinger (in collaboration with Bristol Myers Squibb).

Many of our competitors have significantly greater financial, technical, manufacturing, marketing, sales and supply resources or experience than we do. If we successfully obtain approval for any product candidate, we will face competition based on many different factors, including the safety and effectiveness of our products, the ease with which our products can be administered and the extent to which patients accept relatively new routes of administration, the timing and scope of regulatory approvals for these products, the availability and cost of manufacturing, marketing and sales capabilities, price, reimbursement coverage and patent position. Competing products could present superior treatment alternatives, including by being more effective, safer, more convenient, less expensive or marketed and sold more effectively than any products we may develop. Competitive products approaches may make any products we develop obsolete or noncompetitive before we recover the expense of developing and commercializing our product candidates. If we are unable to compete effectively, our opportunity to generate revenue from the sale of our products we may develop, if approved, could be adversely affected.

***The market opportunities for our product candidates may be limited to patients who are ineligible for or have failed prior treatments and may be small or different from our estimates.***

Cancer therapies are defined by lines of therapy as well as by treatment-naïve or previously-treated status. Often the initial approval for a new therapy is in later lines and subsequent approval in an earlier line may not be feasible. When cancer is detected early enough, first line therapy is sometimes adequate to cure the cancer or prolong life without a cure. Whenever first line therapy, including targeted therapy, immunotherapy, chemotherapy, hormone therapy, surgery or a combination of these, proves unsuccessful, second line therapy may be administered. Second line therapies often consist of additional chemotherapy, radiation, antibody

drugs, tumor targeted small molecules or a combination of these. Third line therapies can include bone marrow transplantation, antibody and small molecule targeted therapies, more invasive forms of surgery and new technologies. In markets with approved therapies, there is no guarantee that our product candidates, even if approved, would be approved for second line or first line therapy. This could limit our potential market opportunity. In addition, we may have to conduct additional clinical trials prior to gaining approval for second line or first line therapy.

Our projections of both the number of people who have the cancers we are targeting, as well as the subset of people with these cancers in a position to receive later stage therapy and who have the potential to benefit from treatment with our product candidates, are based on our beliefs and estimates. These estimates have been derived from a variety of sources, including the scientific literature, publicly available clinical molecular reports, patient foundations or market research, and may prove to be incorrect. Further, new trials or information may change the estimated incidence or prevalence of these cancers. The number of patients in the United States and other major markets and elsewhere may turn out to be lower than expected, patients may not be otherwise amenable to treatment with our products or new patients may become increasingly difficult to identify or gain access to, all of which would adversely affect our results of operations and our business. Further, even if we obtain significant market share for our product candidates, because some of our potential target populations are very small, we may never achieve profitability despite obtaining such significant market share.

***We currently have no marketing and sales organization and have no experience as a company in commercializing products, and we may have to invest significant resources to develop these capabilities. If we are unable to establish marketing and sales capabilities or enter into agreements with third parties to market and sell our products, we may not be able to generate product revenue.***

We have no internal sales, marketing or distribution capabilities, nor have we commercialized a product. If any of our product candidates ultimately receives regulatory approval, we must build a marketing and sales organization with technical expertise and supporting distribution capabilities to commercialize each such product in major markets, which will be expensive and time-consuming, or collaborate with third parties that have direct sales forces and established distribution systems, either to augment our own sales force and distribution systems or in lieu of our own sales force and distribution systems. We have no prior experience as a company in the marketing, sale and distribution of biopharmaceutical products and there are significant risks involved in building and managing a sales organization, including our ability to hire, retain and incentivize qualified individuals, generate sufficient sales leads, provide adequate training to sales and marketing personnel and effectively manage a geographically dispersed sales and marketing team. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of these products. We may not be able to enter into collaborations or hire consultants or external service providers to assist us in sales, marketing and distribution functions on acceptable financial terms, or at all. In addition, our product revenue and our profitability, if any, may be lower if we rely on third parties for these functions than if we were to market, sell and distribute any products that we develop ourselves. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we are not successful in commercializing our products, either on our own or through arrangements with one or more third parties, we may not be able to generate any future product revenue and we would incur significant additional losses.

***Our future growth may depend, in part, on our ability to operate in foreign markets, where we would be subject to additional regulatory burdens and other risks and uncertainties.***

Our future growth may depend, in part, on our ability to develop and commercialize our product candidates in foreign markets. We are not permitted to market or promote any of our product candidates before we receive

regulatory approval from applicable regulatory authorities in foreign markets, and we may never receive such regulatory approvals for any of our product candidates. To obtain separate regulatory approval in many other countries we must comply with numerous and varying regulatory requirements regarding safety and efficacy and governing, among other things, clinical trials, commercial sales, pricing and distribution of our product candidates. If we obtain regulatory approval of our product candidates and ultimately commercialize our products in foreign markets, we would be subject to additional risks and uncertainties, including:

- different regulatory requirements for approval of drugs in foreign countries;
- reduced protection for intellectual property rights;
- the existence of additional third-party patent rights of potential relevance to our business;
- unexpected changes in tariffs, trade barriers and regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country;
- foreign reimbursement, pricing and insurance regimes;
- workforce uncertainty in countries where labor unrest is common;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geopolitical actions, including war and terrorism, or natural disasters including earthquakes, typhoons, floods and fires.

## Risks related to our business operations and industry

***Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide.***

Our quarterly and annual operating results may fluctuate significantly, which makes it difficult for us to predict our future operating results. These fluctuations may occur due to a variety of factors, many of which are outside of our control, including, but not limited to:

- the timing and cost of, and level of investment in, research, development, regulatory approval and commercialization activities relating to our product candidates, which may change from time to time;
- the timing and success or failure of preclinical studies or clinical trials for our product candidates or competing product candidates, or any other change in the competitive landscape of our industry, including consolidation among our competitors or partners;
- coverage and reimbursement policies with respect to our product candidates, if approved, and potential future drugs that compete with our products;
- the cost of manufacturing our product candidates, which may vary depending on the quantity of production and the terms of our agreements with third-party manufacturers;
- expenditures that we will or may incur to acquire, develop or commercialize additional product candidates and technologies or other assets;

- the level of demand for any approved products, which may vary significantly and be difficult to predict; and
- future accounting pronouncements or changes in our accounting policies;

The cumulative effects of these factors could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance.

This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if the forecasts we provide to the market are below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated revenue or earnings guidance we may provide.

***Our success is dependent on our ability to attract and retain highly qualified management and other clinical and scientific personnel.***

Our success depends in part on our continued ability to attract, retain, manage, and motivate highly qualified management, clinical, and scientific personnel, and we face significant competition for experienced personnel. We are highly dependent upon our senior management, as well as our senior scientists and other members of our management team. The loss of services of any of these individuals could delay or prevent the successful development of our product pipeline, initiation, or completion of our clinical trials and preclinical studies or the commercialization of our product candidates. Although we have executed employment agreements or offer letters with each member of our senior management team, these agreements are terminable at will with or without notice and, therefore, we may not be able to retain their services as expected. We do not currently maintain “key person” life insurance on the lives of our executives or any of our employees. This lack of insurance means that we may not have adequate compensation for the loss of the services of these individuals.

We will need to expand and effectively manage our managerial, operational, financial, and other resources in order to successfully pursue our clinical development and commercialization efforts. We may not be successful in maintaining our unique company culture and continuing to attract or retain qualified management, clinical, and scientific personnel in the future due to the intense competition for qualified personnel among biopharmaceutical, biotechnology, and other businesses, particularly in the San Diego area. Our industry has experienced a high rate of turnover of management personnel in recent years. If we are not able to attract, integrate, retain, and motivate necessary personnel to accomplish our business objectives, we may experience constraints that will significantly impede the achievement of our development objectives, our ability to raise additional capital, and our ability to implement our business strategy.

***We may encounter difficulties in managing our growth and expanding our operations successfully.***

We have substantially increased our organization from 30 employees as of December 31, 2019 to 95 employees as of May 31, 2021. As we continue development and pursue the potential commercialization of our product candidates, as well as function as a public company, we will need to expand our financial, development, regulatory, manufacturing, marketing and sales capabilities or contract with third parties to provide these capabilities for us. As our operations expand, we expect that we will need to manage additional relationships with various strategic partners, suppliers and other third parties. Our future financial performance and our ability to develop and commercialize our product candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively.

***We are subject to various US federal, state and foreign healthcare laws and regulations, which could increase compliance costs, and our failure to comply with these laws and regulations could harm our reputation, subject us to significant fines and liability or otherwise adversely affect our business.***

Our business operations and current and future arrangements with investigators, healthcare professionals, consultants, third-party payors, patient organizations and customers expose us to broadly applicable foreign, federal and state fraud and abuse and other healthcare laws and regulations. These laws may constrain the business or financial arrangements and relationships through which we conduct our operations, including how we research, market, sell and distribute any products for which we obtain marketing approval. Such laws include:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons or entities from knowingly and willfully soliciting, offering, receiving or providing any remuneration (including any kickback, bribe or certain rebates), directly or indirectly, overtly or covertly, in cash or in kind, in return for, either the referral of an individual or the purchase, lease, or order, or arranging for or recommending the purchase, lease, or order of any good, facility, item or service, for which payment may be made, in whole or in part, under a federal healthcare program such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of the federal Anti- Kickback Statute or specific intent to violate it in order to have committed a violation;
- the federal false claims laws, including the civil False Claims Act, and civil monetary penalties laws, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, to the federal government, claims for payment or approval that are false or fraudulent, knowingly making, using or causing to be made or used, a false record or statement material to a false or fraudulent claim, or from knowingly making or causing to be made a false statement to avoid, decrease or conceal an obligation to pay money to the federal government. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act;
- the federal Health Insurance Portability and Accountability Act of 1996 (HIPAA), which imposes criminal and civil liability for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement, in connection with the delivery of, or payment for, healthcare benefits, items or services. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- the federal Physician Payments Sunshine Act, which requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children’s Health Insurance Program (with certain exceptions) to report annually to the Centers for Medicare & Medicaid Services (CMS), information related to payments and other “transfers of value” made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by such healthcare professionals and their immediate family members. Beginning in 2022, applicable manufacturers also will be required to report such information regarding payments and transfers of value provided during the previous year to physician assistants, nurse practitioners, clinical nurse specialists, certified nurse anesthetists and certified nurse-midwives; and
- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; some state laws require biotechnology companies to comply with the biotechnology industry’s voluntary compliance guidelines and the relevant

compliance guidance promulgated by the federal government and may require certain biotechnology companies to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; some state laws that require biotechnology companies to report information on the pricing of certain drug products; and some state and local laws require the registration or pharmaceutical sales representatives.

Efforts to ensure that our current and future business arrangements with third parties will comply with applicable healthcare laws and regulations will involve ongoing substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant penalties, including civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, exclusion from participation in government funded healthcare programs, including Medicare and Medicaid, integrity oversight and reporting obligations, contractual damages, reputational harm, diminished profits and future earnings and the curtailment or restructuring of our operations. Defending against any such actions can be costly, time-consuming and may require significant financial and personnel resources. Therefore, even if we are successful in defending against any such actions that may be brought against us, our business may be impaired. Further, if any of the physicians or other healthcare providers or entities with whom we expect to do business is found to be not in compliance with applicable laws, they may be subject to significant criminal, civil or administrative sanctions, including exclusions from government funded healthcare program.

***Recently enacted legislation, future legislation and healthcare reform measures may increase the difficulty and cost for us to obtain marketing approval for and commercialize our product candidates and may affect the prices we may set.***

In the United States and some foreign jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes to the healthcare system, including cost-containment measures that may reduce or limit coverage and reimbursement for newly approved drugs and affect our ability to profitably sell any product candidates for which we obtain marketing approval. In particular, there have been and continue to be a number of initiatives at the US federal and state levels that seek to reduce healthcare costs and improve the quality of healthcare.

For example, in March 2010, the ACA was enacted in the United States. Among the provisions of the ACA of importance to our potential product candidates, the ACA: established an annual, nondeductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents; extended manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations; expands eligibility criteria for Medicaid programs; expanded the entities eligible for discounts under the Public Health Service pharmaceutical pricing program; increased the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program; creates a new Medicare Part D coverage gap discount program; established a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in and conduct comparative clinical effectiveness research, along with funding for such research; and established a Center for Medicare and Medicaid Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending.

There have been executive, judicial and Congressional challenges to certain aspects of the ACA. The US Supreme Court is currently reviewing the constitutionality of the ACA in its entirety, but it is unknown when a decision will be reached or how the US Supreme Court will rule. On February 10, 2021, the Biden administration withdrew the federal government's support for overturning the ACA. Although the US Supreme Court has not yet ruled, President Biden issued an executive order to initiate a special enrollment period for purposes of obtaining health insurance coverage through the ACA marketplace, which began on February 15, 2021 and will

remain open through August 15, 2021. The executive order also instructed certain governmental agencies to review and reconsider their existing policies and rules that limit access to healthcare, including among others, reexamining Medicaid demonstration projects and waiver programs that include work requirements, and policies that create unnecessary barriers to obtaining access to health insurance coverage through Medicaid or the ACA. It is unclear how the Supreme Court ruling, other such litigation, and the healthcare reform measures of the Biden administration will impact the ACA and our business.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. On August 2, 2011, the Budget Control Act of 2011 was signed into law, which, among other things, resulted in reductions to Medicare payments to providers of 2% per fiscal year, which went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2030 unless additional Congressional action is taken. However, COVID-19 relief legislation suspended these Medicare sequester reductions from May 1, 2020 through December 31, 2021. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, reduced Medicare payments to several providers, including hospitals, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

Further, there has been heightened governmental scrutiny in the United States of pharmaceutical pricing practices in light of the rising cost of prescription drugs. Such scrutiny has resulted in several recent congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for products. At the federal level, the Trump administration used several means to propose or implement drug pricing reform, including through federal budget proposals, executive orders and policy initiatives. It is unclear whether the Biden administration will work to reverse these measures or pursue similar policy initiatives. Further, it is possible that additional governmental action is taken in response to the COVID-19 pandemic.

At the state level, legislatures have increasingly passed legislation and implemented regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. Legally mandated price controls on payment amounts by third-party payors or other restrictions could harm our business, results of operations, financial condition and prospects. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs. This could reduce the ultimate demand for our product candidates, if approved, or put pressure on our product pricing, which could negatively affect our business, results of operations, financial condition and prospects.

We expect that the ACA, these new laws and other healthcare reform measures that may be adopted in the future may result in additional reductions in Medicare and other healthcare funding, more rigorous coverage criteria, new payment methodologies and additional downward pressure on the price that we receive for any approved product. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability or commercialize our product candidates, if approved.

***If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of our products.***

We face an inherent risk of product liability as a result of the clinical trials of our product candidates and will face an even greater risk if we commercialize our product candidates. For example, we may be sued if our

product candidates allegedly cause injury or are found to be otherwise unsuitable during product testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product candidate, negligence, strict liability and a breach of warranties. Claims may be brought against us by clinical trial participants, patients or others using, administering or selling products that may be approved in the future. Claims could also be asserted under state consumer protection acts.

If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit or cease the commercialization of our products. Even a successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our products;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- costs to defend the related litigation;
- a diversion of our management's time and our resources;
- substantial monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- significant negative financial impact;
- the inability to commercialize our product candidates; and
- a decline in our stock price.

We currently hold approximately $10 million in product liability insurance coverage in the aggregate. We may need to increase our insurance coverage as we expand our clinical trials or if we commence commercialization of our product candidates. Insurance coverage is increasingly expensive. Our inability to obtain and retain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of our product candidates. Although we will maintain such insurance, any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. Our insurance policies will also have various exclusions, and we may be subject to a product liability claim for which we have no coverage. We may have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts.

***Our insurance policies are expensive and only protect us from some business risks, which will leave us exposed to significant uninsured liabilities.***

We do not carry insurance for all categories of risk that our business may encounter. Some of the policies we currently maintain include property, general liability, employment benefits liability, business automobile, workers' compensation, products liability, malicious invasion of our electronic systems, clinical trials, and directors' and officers' employment practices and fiduciary liability insurance. We do not know, however, if we will be able to maintain insurance with adequate levels of coverage. No assurance can be given that an insurance carrier will not seek to cancel or deny coverage after a claim has occurred. Any significant uninsured liability may require us to pay substantial amounts, which would adversely affect our financial position and results of operations.

***We and any of our potential future collaborators will be required to report to regulatory authorities if any of our approved products cause or contribute to adverse medical events, and any failure to do so would result in sanctions that would materially harm our business.***

If we or any of our potential future collaborators are successful in commercializing our products, the FDA and foreign regulatory authorities would require that we and such collaborators report certain information about adverse medical events if those products may have caused or contributed to those adverse events. The timing of our obligation to report would be triggered by the date we become aware of the adverse event as well as the nature of the event. We and any of our potential future collaborators or CROs may fail to report adverse events within the prescribed timeframe. If we or any of our potential future collaborators or CROs fail to comply with such reporting obligations, the FDA or a foreign regulatory authority could take action, including criminal prosecution, the imposition of civil monetary penalties, seizure of our products or delay in approval or clearance of future products.

***Our internal computer systems, or those of any of our CROs, manufacturers, other contractors or consultants or current or potential future collaborators, may fail or suffer security breaches, which could result in a material disruption of our product development programs, harm our reputation, significant fines, penalties and liability and loss of customers or sales.***

In the ordinary course of business, we collect, store, transmit and otherwise process large amounts of data including, without limitation, proprietary business information and personal information. Despite the implementation of security measures, our information technology systems (including infrastructure) and those of our current and any future CROs and other contractors, consultants, third-party service providers and collaborators are vulnerable to damage from computer viruses, cybersecurity threats (such as denial-of-service attacks, ransomware, supply chain attacks, cyber-attacks or cyber-intrusions over the Internet, hacking, phishing and other social engineering attacks), unauthorized access or use, natural disasters, terrorism, war and telecommunication and electrical failures. Our systems are also subject to compromise from internal threats, such as theft, misuse, unauthorized access or other improper or accidental actions by employees, vendors and other third parties with otherwise legitimate access to our systems. Third parties may also attempt to fraudulently induce our employees and contractors into disclosing sensitive information such as usernames, passwords or other information, or otherwise compromise the security of our electronic systems, networks, and/or physical facilities in order to gain access to our data. Additionally, due to the COVID-19 pandemic, our employees are temporarily working remotely, which may pose additional data security risks.

Given the unpredictability of the timing, nature and scope of information technology disruptions, there can be no assurance that any security procedures and controls that we or our third-party partners and service providers have implemented will be sufficient to prevent cyber-attacks from occurring. The latency of a compromise is often measured in months, but could be years, and we may not be able to detect a compromise in a timely manner. New techniques may not be identified until they are launched against a target, and we may be unable to anticipate these techniques or detect an incident, assess its severity or impact, react or appropriately respond in a timely manner or implement adequate preventative measures, resulting in potential data loss or other damage to our information technology systems.

If a security breach were to occur and cause interruptions in our operations or result in the unauthorized disclosure of or access to personally identifiable information or individually identifiable health information (potentially violating certain privacy laws), it could result in a material disruption of our development programs and our business operations, whether due to a loss of our trade secrets or other similar disruptions. Some of the federal, state and foreign government requirements include obligations of companies to notify individuals of security breaches involving particular personally identifiable information, which could result from breaches experienced by us or by our vendors, contractors, or organizations with which we have formed strategic relationships.

Any security breach or other incident, whether actual or perceived, could impact our reputation, cause us to incur significant costs, including legal expenses, harm customer confidence, hurt our expansion into new markets, cause us to incur remediation costs, or cause us to lose existing customers. For example, the loss of clinical trial data from clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. We also rely on third parties to manufacture our product candidates, and similar events relating to their computer systems could also have a material adverse effect on our business. To the extent that any actual or perceived disruption or security breach affects our systems (or those of our third-party collaborators, service providers, contractors or consultants) or were to result in a loss of or accidental, unlawful or unauthorized access to, use of, release of, or other processing of personally identifiable information, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability, the further development and commercialization of our product candidates could be delayed, and we could be subject to significant fines, penalties or liabilities for any noncompliance with certain privacy and security laws. For further discussion on the potential liability related to the violation of these laws, see "—Risks related to our intellectual property—We and our service providers may be subject to a variety of privacy and data security laws and contractual obligations, which could increase compliance costs and our failure to comply with them could subject us to potentially significant fines or penalties, harm our reputation and otherwise harm our business."

***Our business is subject to risks arising from COVID-19 and other epidemic diseases.***

The COVID-19 worldwide pandemic has presented substantial public health and economic challenges and is affecting our employees, patients, physicians and other healthcare providers, communities and business operations, as well as the US and global economies and financial markets. International and US governmental authorities in impacted regions are taking actions in an effort to slow the spread of COVID-19, including issuing varying forms of "stay-at-home" orders, and restricting business functions outside of one's home. In response, our administrative employees have worked remotely and we have limited the number of staff in our research and development laboratories. To date we have not experienced material disruptions in our business operations. However, while it is not possible at this time to estimate the impact that COVID-19 could have on our business in the future, particularly as we advance our product candidates through clinical development, the continued spread of COVID-19 and the measures taken by the governmental authorities, and any future epidemic disease outbreaks, could: disrupt the supply chain and the manufacture or shipment of drug substances and finished drug products for our product candidates for use in our research, preclinical studies and clinical trials; delay, limit or prevent our employees and CROs from continuing research and development activities; impede our clinical trial initiation and recruitment and the ability of patients to continue in clinical trials, including the risk that participants enrolled in our clinical trials will contract COVID-19 or other epidemic disease while the clinical trial is ongoing, which could impact the results of the clinical trial, including by increasing the number of observed adverse events; impede testing, monitoring, data collection and analysis and other related activities; any of which could delay our preclinical studies and clinical trials and increase our development costs, and have a material adverse effect on our business, financial condition and results of operations. The COVID-19 pandemic and any future epidemic disease outbreak could also potentially further affect the business of the FDA, EMA or other regulatory authorities, which could result in delays in meetings related to planned clinical trials. The COVID-19 pandemic and mitigation measures have had and may continue to have, and any future epidemic disease outbreak may have, an adverse impact on global economic conditions which could have an adverse effect on our business and financial condition, including impairing our ability to raise capital when needed. The extent to which the COVID-19 pandemic impacts our results will depend on future developments that are highly uncertain and cannot be predicted, including new information that may emerge concerning the severity of the virus and the actions to contain its impact.

***Our business could be affected by litigation, government investigations and enforcement actions.***

We currently operate in a number of jurisdictions in a highly regulated industry and we could be subject to litigation, government investigation and enforcement actions on a variety of matters in the United States. or foreign jurisdictions, including, without limitation, intellectual property, regulatory, product liability, environmental, whistleblower, false claims, privacy, anti-kickback, anti-bribery, securities, commercial, employment and other claims and legal proceedings which may arise from conducting our business. Any determination that our operations or activities are not in compliance with existing laws or regulations could result in the imposition of fines, civil and criminal penalties, equitable remedies, including disgorgement, injunctive relief and/or other sanctions against us, and remediation of any such findings could have an adverse effect on our business operations.

Legal proceedings, government investigations and enforcement actions can be expensive and time-consuming. An adverse outcome resulting from any such proceeding, investigations or enforcement actions could result in significant damages awards, fines, penalties, exclusion from the federal healthcare programs, healthcare debarment, injunctive relief, product recalls, reputational damage and modifications of our business practices, which could have a material adverse effect on our business and results of operations.

***Our employees and independent contractors, including principal investigators, CROs, consultants and vendors, may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.***

We are exposed to the risk that our employees and independent contractors, including principal investigators, CROs, consultants and vendors may engage in misconduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to us that violate: (i) the laws and regulations of the FDA and other similar regulatory requirements, including those laws that require the reporting of true, complete and accurate information to such authorities, (ii) manufacturing standards, including cGMP requirements, (iii) federal and state data privacy, security, fraud and abuse and other healthcare laws and regulations in the United States and abroad or (iv) laws that require the true, complete and accurate reporting of financial information or data. Activities subject to these laws also involve the improper use or misrepresentation of information obtained in the course of clinical trials, the creation of fraudulent data in our preclinical studies or clinical trials or illegal misappropriation of drug product, which could result in regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. In addition, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and financial results, including, without limitation, the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, disgorgements, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, imprisonment, contractual damages, reputational harm, diminished profits and future earnings, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

***We may engage in strategic transactions that could impact our liquidity, increase our expenses and present significant distractions to our management.***

From time to time, we may consider strategic transactions, such as acquisitions of companies, asset purchases and out-licensing or in-licensing of intellectual property, products or technologies, similar to our approach in which we in-licensed and acquired certain of our current product candidates and development programs. Additional potential transactions that we may consider in the future include a variety of business arrangements, including spin-offs, strategic partnerships, joint ventures, restructurings, divestitures, business combinations and investments. Any future transactions could increase our near and long-term expenditures, result in potentially dilutive issuances of our equity securities, including our common stock, or the incurrence of debt, contingent liabilities, amortization expenses or acquired in-process research and development expenses, any of which could affect our financial condition, liquidity and results of operations. Future acquisitions may also require us to obtain additional financing, which may not be available on favorable terms or at all. These transactions may never be successful and may require significant time and attention of our management. In addition, the integration of any business that we may acquire in the future may disrupt our existing business and may be a complex, risky and costly endeavor for which we may never realize the full benefits of the acquisition. Accordingly, although there can be no assurance that we will undertake or successfully complete any additional transactions of the nature described above, any additional transactions that we do complete could have a material adverse effect on our business, results of operations, financial condition and prospects.

***Our ability to use net operating loss carryforwards and other tax attributes may be limited in connection with this offering or other ownership changes.***

We have incurred substantial losses during our history, do not expect to become profitable in the near future and may never achieve profitability. To the extent that we continue to generate taxable losses, unused losses will carry forward to offset future taxable income, if any, until such unused losses expire (if at all). As of December 31, 2020, we had federal, California and other state net operating loss (NOL) carryforwards of $49.1 million, $13.0 million and $2.4 million, respectively.

Under the legislation enacted in 2017, informally titled the Tax Cuts and Jobs Act (Tax Act), federal NOL carryforwards arising in tax years beginning after December 31, 2017, may be carried forward indefinitely, but the deductibility of such federal NOLs in tax year in tax years beginning after December 31, 2020, is limited. Under the Coronavirus Aid, Relief and Economic Security Act (CARES Act), federal NOL carryforwards arising in tax years beginning after December 31, 2017 and before January 1, 2021 may be carried back to each of the five tax years preceding the tax year of such loss. It is uncertain if and to what extent various states will conform to the Tax Act or the CARES Act. In addition, our NOL carryforwards are subject to review and possible adjustment by the IRS and state tax authorities. Under Section 382 of the Internal Revenue Code of 1986, as amended (the Code), our federal NOL carryforwards may become subject to an annual limitation in the event of certain cumulative changes in the ownership of our company. An “ownership change” pursuant to Section 382 of the Code generally occurs if one or more stockholders or groups of stockholders who own at least 5% of a company’s stock increase their ownership by more than 50 percentage points over their lowest ownership percentage within a rolling three-year period. Similar rules may apply under state tax laws. We have not yet formally determined the amount of the cumulative change in our ownership resulting from this offering or other transactions, or any resulting limitations on our ability to utilize our NOL carryforwards and other tax attributes. However, we believe that our ability to utilize our NOL carryforwards and other tax attributes to offset future taxable income or tax liabilities is likely to be limited as a result of ownership changes, including potential changes in connection with this offering. If we earn taxable income, such limitations could result in increased future income tax liability to us and our future cash flows could be adversely affected. We have recorded a full valuation allowance related to our NOL carryforwards and other deferred tax assets due to the uncertainty of the ultimate realization of the future benefits of those assets.

## Risks related to our intellectual property

***If we are unable to obtain and maintain patent protection for our product candidates, or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize products similar or identical to ours, and our ability to successfully commercialize our product candidates may be adversely affected.***

Our success depends in large part on our ability to obtain and maintain patent protection and trade secret protection with respect to our therapeutic programs, proprietary technologies, and their uses. We seek to protect our proprietary position, in part, by filing patent applications in the United States and abroad relating to our product candidates. We also seek to protect our proprietary position by acquiring or in-licensing relevant issued patents or pending applications from third parties. If we are unable to obtain or maintain patent protection with respect to our product candidates, our business, financial condition, results of operations and prospects could be materially harmed.

Changes in either the patent laws or their interpretation in the United States and other jurisdictions may diminish our ability to protect our intellectual property, obtain, maintain and enforce our intellectual property rights and, more generally, could affect the value of our intellectual property or narrow the scope of our protection. We cannot predict whether the patent applications we are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient protection against competitors or other third parties.

The patent prosecution process is expensive, time-consuming, and complex, and we may not be able to file, prosecute, maintain, enforce, or license all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output in time to obtain patent protection. Although we enter into non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development output, such as our employees, third-party collaborators, CROs, contract manufacturers, consultants, advisors and other third parties, any of these parties may breach the agreements and disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection. In addition, our ability to obtain and maintain valid and enforceable patents depends on whether the differences between our inventions and the prior art allow our inventions to be patentable in light of the prior art. Furthermore, publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot be certain that we or our licensors were the first to invent the inventions claimed in any of our owned or licensed patents or pending patent applications, or that we or our licensors were the first to file for patent protection of such inventions.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has been the subject of much litigation in recent years. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our owned and in-licensed patent applications may not result in patents being issued which protect our therapeutic programs and other proprietary technologies we may develop or which effectively prevent others from commercializing competitive technologies and products.

Moreover, the claim coverage in a patent application can be significantly reduced before the patent is granted. Even if our owned and in-licensed patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors or other third parties from competing with us or otherwise provide us with any competitive advantage. Any patents issuing from our owned and in-licensed patent applications may be challenged, narrowed, circumvented or invalidated by third parties. Consequently,

we do not know whether our therapeutic programs and other proprietary technology will be protectable or remain protected by valid and enforceable patents. Even if a patent is granted, our competitors or other third parties may be able to circumvent the patent by developing similar or alternative technologies or products in a non-infringing manner which could materially adversely affect our business, financial condition, results of operations and prospects. In addition, given the amount of time required for the development, testing and regulatory review of our therapeutic programs and eventual product candidates, patents protecting the product candidates might expire before or shortly after such product candidates are commercialized. As a result, our intellectual property may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

The issuance of a patent is not conclusive as to its inventorship, scope, validity, or enforceability and our owned and in-licensed patents may be challenged in the courts or patent offices in the United States and abroad. We may be subject to a third-party pre-issuance submission of prior art to the US Patent and Trademark Office (USPTO) or become involved in opposition, derivation, revocation, reexamination, post-grant and inter partes review, or other similar proceedings challenging our patent rights. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate or render unenforceable, our patent rights, allow third parties to commercialize our therapeutic programs and other proprietary technologies we may develop and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. Such proceedings also may result in substantial cost and require significant time from our scientists and management, even if the eventual outcome is favorable to us.

Moreover, some of our owned and in-licensed patent rights are, and may in the future be, co-owned with third parties. If we are unable to obtain an exclusive license to any such third-party co-owners' interest in such patent rights, such co-owners may be able to license their rights to other third parties, including our competitors, and our competitors could market competing products and technology. In addition, we may need the cooperation of any such co-owners of such patent rights in order to enforce such patent rights against third parties, and such cooperation may not be provided to us. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

Furthermore, our owned and in-licensed patent rights may be subject to a reservation of rights by one or more third parties. For example, the research resulting in certain of our patent rights and technology was funded in part by the US government. As a result, the government may have certain rights, or march-in rights, to such patent rights and technology. When new technologies are developed with government funding, the government generally obtains certain rights in any resulting patents, including a non-exclusive license authorizing the government to use the invention for non-commercial purposes. These rights may permit the government to disclose our confidential information to third parties and to exercise march-in rights to use or allow third parties to use our licensed technology. The government can exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the government-funded technology, because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to US industry. In addition, our rights in such inventions may be subject to certain requirements to manufacture products embodying such inventions in the United States. Any exercise by the government of such rights could harm our competitive position, business, financial condition, results of operations and prospects.

***We may not be able to protect our intellectual property and proprietary rights throughout the world.***

Filing, prosecuting and defending patents on our product candidates in all countries throughout the world would be prohibitively expensive, and the laws of foreign countries may not protect our intellectual property rights to the same extent as the laws of the United States. Consequently, we may not be able to prevent third

parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our intellectual property in and into the United States or other jurisdictions. Competitors may use our intellectual property in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection but enforcement is not as strong as that in the United States. These products may compete with our products, and our owned and in-licensed patents or other intellectual property rights may not be effective or sufficient to prevent them from competing. Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for us to stop the infringement of our owned and in-licensed patents or marketing of competing products in violation of our intellectual property and proprietary rights generally. In addition, some jurisdictions, such as Europe, Japan and China, may have a higher standard for patentability than in the United States, including, for example, the requirement of claims having literal support in the original patent filing and the limitation on using supporting data that is not in the original patent filing. Under those heightened patentability requirements, we may not be able to obtain sufficient patent protection in certain jurisdictions even though the same or similar patent protection can be secured in the United States and other jurisdictions.

Proceedings to enforce our intellectual property and proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our owned and in-licensed patents at risk of being invalidated or interpreted narrowly, could put our owned and in-licensed patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property and proprietary rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop.

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we are forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business, financial condition, results of operations and prospects may be adversely affected.

***Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment, and other requirements imposed by government patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.***

The USPTO and various non-US government agencies require compliance with several procedural, documentary, fee payment and other similar provisions during the patent application process. In some circumstances, we are dependent on our licensors to take the necessary action to comply with these requirements with respect to our licensed intellectual property. For example, periodic maintenance fees, renewal fees, annuity fees, and various other government fees on patents and applications will be due to be paid to the USPTO and various government patent agencies outside of the United States over the lifetime of our owned or licensed patents and applications. In certain circumstances, we rely on our licensing partners to pay these fees due to US and non-US patent agencies. In some cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. There are situations, however, in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in a partial or complete loss of patent rights in the relevant jurisdiction. In such an event, potential competitors might be able

to enter the market with similar or identical products or technology, which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

The USPTO and various non-US. government agencies require compliance with certain foreign filing requirements during the patent application process. For example, in some countries, including the US, China, India and some European countries, a foreign filing license is required before certain patent applications are filed. The foreign filing license requirements vary by country and depend on various factors including where the inventive activity occurred, citizenship status of the inventors, the residency of the inventors and the invention owner, the place of business for the invention owner and the nature of the subject matter to be disclosed (e.g., items related to national security or national defense). In some cases, a foreign filing license may be obtained retroactively in accordance with the applicable rules. There are situations, however, in which non-compliance can result in abandonment of a pending patent application or can be grounds for revoking or invalidating an issued patent, resulting in the loss of patent rights in the relevant jurisdiction. In such an event, potential competitors might be able to enter the relevant markets with similar or identical products or technology, which could have a material adverse effect on our business, financial condition, results of operations, and prospects. We are also dependent on our licensors to take the necessary actions to comply with these requirements with respect to our licensed intellectual property. The Indian patent application covering ERAS-007 as composition of matter was filed without obtaining a foreign filing license from the Indian Patent Office. As such, any patent issuing from the pending patent application in India may be vulnerable to revocation by the Indian Patent Office or invalidity or unenforceability attacks by third parties.

The COVID-19 pandemic may impair our and our licensors' ability to comply with these procedural, document submission, fee payment, and other requirements imposed by government patent agencies, which may materially and adversely affect our ability to obtain or maintain patent protection for our products and product candidates.

***Changes in US patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.***

Changes in either the patent laws or interpretation of the patent laws in the United States could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. Assuming that other requirements for patentability are met, prior to March 2013, in the United States, the first to invent the claimed invention was entitled to the patent, while outside the United States, the first to file a patent application was entitled to the patent. After March 2013, under the Leahy-Smith America Invents Act (the America Invents Act) enacted in September 2011, the United States transitioned to a first inventor to file system in which, assuming that other requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. A third party that files a patent application in the USPTO after March 2013, but before us or our licensors could therefore be awarded a patent covering an invention of ours or our licensors even if we or our licensors had made the invention before it was made by such third party. This will require us to be cognizant going forward of the time from invention to filing of a patent application. Since patent applications in the United States and most other countries are confidential for a period of time after filing or until issuance, we cannot be certain that we or our licensors were the first to either (i) file any patent application related to our therapeutic programs and other proprietary technologies we may develop or (ii) invent any of the inventions claimed in our patent applications.

The America Invents Act also includes a number of significant changes that affect the way patent applications will be prosecuted and also may affect patent litigation. These include allowing third party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, inter partes review and derivation

proceedings. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate our owned and in-licensed patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. Therefore, the America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our owned and in-licensed patent applications and the enforcement or defense of patents issuing from those patent applications, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, the patent positions of companies in the development and commercialization of biologics and pharmaceuticals are particularly uncertain. Recent US Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. This combination of events has created uncertainty with respect to the validity and enforceability of patents, once obtained. Depending on future actions by the US Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could have a material adverse effect on our existing patent portfolio and our ability to protect and enforce our intellectual property in the future.

***Issued patents covering our product candidates could be found invalid or unenforceable if challenged in court or before administrative bodies in the United States or abroad.***

If we initiated legal proceedings against a third party to enforce a patent covering our product candidates, the defendant could counterclaim that such patent is invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, non-enablement lack of sufficient written description or obviousness-type double patenting. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. Third parties may raise claims challenging the validity or enforceability of a patent before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, post-grant review, inter partes review, derivation proceedings, and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings). Such proceedings could result in the revocation of, cancellation of or amendment to our owned and in-licensed patents in such a way that they no longer cover our product candidates. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we or our licensing partners and the patent examiner were unaware during prosecution. If a third party were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our product candidates. Such a loss of patent protection would have a material adverse impact on our business, financial condition, results of operations and prospects.

***Patent terms may be inadequate to protect our competitive position on products and product candidates for an adequate amount of time.***

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest US non-provisional or international patent application filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our product candidates are obtained, once the patent has expired, we may be vulnerable to competition from competitive products, including generics or biosimilars. Given the

amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such product candidates might expire before or shortly after such product candidates are commercialized. As a result, our owned and in-licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

***If we do not obtain patent term extension for our product candidates, our business may be materially harmed.***

Depending upon the timing, duration and specifics of any FDA marketing approval of any of our product candidates, one or more of our owned and in-licensed issued US patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Action of 1984 (Hatch-Waxman Amendments). The Hatch-Waxman Amendments permit a patent term extension (PTE) of up to five years as compensation for patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent may be extended and only those claims covering the approved drug, a method for using it or a method for manufacturing it may be extended. Similar patent term restoration provisions to compensate for commercialization delay caused by regulatory review are also available in certain foreign jurisdictions, such as in Europe under Supplemental Protection Certificate (SPC). However, we may not be granted an extension because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents, or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or term of any such extension is less than we request, our competitors may obtain approval of competing products following our patent expiration, and our business, financial condition, results of operations and prospects could be materially harmed).

***We may be subject to claims challenging the inventorship of our patents and other intellectual property.***

We may be subject to claims that former employees, collaborators or other third parties have an interest in our patent rights, trade secrets, or other intellectual property as an inventor or co-inventor. For example, we may have inventorship disputes arise from conflicting obligations of consultants or others who are involved in developing our therapeutic programs and other proprietary technologies we may develop. Litigation may be necessary to defend against these and other claims challenging inventorship or our patent rights, trade secrets or other intellectual property. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, intellectual property that is important to our therapeutic programs and other proprietary technologies we may develop. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to our management and other employees. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

***If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.***

In addition to seeking patent protection for our product candidates, we also rely on trade secrets and confidentiality agreements to protect our unpatented know-how, technology, and other proprietary information and to maintain our competitive position. We seek to protect these trade secrets and other proprietary technology, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, third-party collaborators, CROs, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. We cannot guarantee that we have entered into such agreements with each party that may have or have had access to our trade secrets or proprietary technology

and processes. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, we would have no right to prevent them from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor or other third party, our competitive position would be materially and adversely harmed.

We may be subject to claims that third parties have an ownership interest in our trade secrets. For example, we may have disputes arise from conflicting obligations of our employees, consultants or others who are involved in developing our product candidate. Litigation may be necessary to defend against these and other claims challenging ownership of our trade secrets. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable trade secret rights, such as exclusive ownership of, or right to use, trade secrets that are important to our therapeutic programs and other proprietary technologies we may develop. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to our management and other employees. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

***We may be subject to claims that our employees, consultants or advisors have wrongfully used or disclosed alleged trade secrets of their current or former employers or claims asserting ownership of what we regard as our own intellectual property.***

Some of our employees, consultants and advisors are currently or were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants and advisors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these individuals have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to our management.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. Such claims could have a material adverse effect on our business, financial condition, results of operations and prospects.

***We may not identify relevant third-party patents or may incorrectly interpret the relevance, scope or expiration of a third-party patent, which might adversely affect our ability to develop and market our products and product candidates.***

We cannot guarantee that any of our patent searches or analyses, including the identification of relevant patents, the scope of patent claims or the expiration of relevant patents, are complete or thorough, nor can we

be certain that we have identified each and every third-party patent and pending patent application in the United States and abroad that is relevant to or necessary for the commercialization of our current and future products and product candidates in any jurisdiction. The scope of a patent claim is determined by an interpretation of the law, the written disclosure in a patent and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending patent application may be incorrect, which may negatively impact our ability to market our products. We may incorrectly determine that our products or product candidates are not covered by a third-party patent or may incorrectly predict whether a third party's pending patent application will issue with claims of relevant scope. Our determination of the expiration date of any patent in the United States or abroad that we consider relevant may be incorrect, and our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our products. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

***Third-party claims of intellectual property infringement, misappropriation or other violations against us or our collaborators may prevent or delay the development and commercialization of our product candidates.***

Our commercial success depends in part on our ability to avoid infringing, misappropriating and otherwise violating the patents and other intellectual property rights of third parties. There is a substantial amount of complex litigation involving patents and other intellectual property rights in the biotechnology and pharmaceutical industries, as well as administrative proceedings for challenging patents, including interference, derivation and reexamination proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. As discussed above, recently, due to changes in US law referred to as patent reform, new procedures including inter partes review and post-grant review have also been implemented. As stated above, this reform adds uncertainty to the possibility of challenge to our owned and in-licensed patents in the future.

Numerous US and foreign issued patents and pending patent applications owned by third parties exist in the fields in which we are commercializing or plan to commercialize our therapeutic and diagnostic programs and in which we are developing other proprietary technologies. As the biotechnology and pharmaceutical industries expand and more patents are issued, and as we gain greater visibility and market exposure as a public company, the risk that our therapeutic and diagnostic programs and commercializing activities may give rise to claims of infringement of the patent rights of others increases. We cannot assure you that our therapeutic programs and other proprietary technologies we may develop will not infringe existing or future patents owned by third parties. We may not be aware of patents that have already been issued and that a third party, including a competitor in the fields in which we are developing our therapeutic programs, might assert as infringed by us. It is also possible that patents owned by third parties of which we are aware, but which we do not believe we infringe or that we believe we have valid defenses to any claims of patent infringement, could be found to be infringed by us. It is not unusual that corresponding patents issued in different countries have different scopes of coverage, such that in one country a third-party patent does not pose a material risk, but in another country, the corresponding third-party patent may pose a material risk to our products or product candidates. As such, we monitor third-party patents in the relevant pharmaceutical markets. In addition, because patent applications can take many years to issue, there may be currently pending patent applications that may later result in issued patents that we may infringe.

In the event that any third-party claims that we infringe their patents or that we are otherwise employing their proprietary technology without authorization and initiates litigation against us, even if we believe such claims are without merit, a court of competent jurisdiction could hold that such patents are valid, enforceable and infringed by us. Defense of infringement claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of management and other employee resources from our business, and may impact our reputation. In the event of a successful claim of infringement against us, we may be

enjoined from further developing or commercializing the infringing products or technologies. In addition, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties and/or redesign our infringing products or technologies, which may be impossible or require substantial time and monetary expenditure. Such licenses may not be available on commercially reasonable terms or at all. Even if we are able to obtain a license, the license would likely obligate us to pay license fees or royalties or both, and the rights granted to us might be nonexclusive, which could result in our competitors gaining access to the same intellectual property. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, we may be unable to commercialize the infringing products or technologies or such commercialization efforts may be significantly delayed, which could in turn significantly harm our business. In addition, we may in the future pursue patent challenges with respect to third-party patents, including as a defense against the foregoing infringement claims. The outcome of such challenges is unpredictable.

Even if resolved in our favor, the foregoing proceedings could be very expensive, particularly for a company of our size, and time-consuming. Such proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to conduct such proceedings adequately. Some of our competitors may be able to sustain the costs of litigation or administrative proceedings more effectively than we can because of greater financial resources. Such legal proceedings may also absorb significant time of our technical and management personnel and distract them from their normal responsibilities. Uncertainties resulting from such proceedings could impair our ability to compete in the marketplace. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. The occurrence of any of the foregoing could have a material adverse effect on our business, financial condition or results of operations.

***We may become involved in lawsuits to protect or enforce our owned and in-licensed patents and other intellectual property rights, which could be expensive, time-consuming and unsuccessful.***

Third parties, such as a competitor, may infringe our patent rights. In an infringement proceeding, a court may decide that a patent owned by us is invalid or unenforceable or may refuse to stop the other party from using the invention at issue on the grounds that the patent does not cover the technology in question. In addition, our patent rights may become involved in inventorship, priority or validity disputes. To counter or defend against such claims can be expensive and time-consuming. An adverse result in any litigation proceeding could put our patent rights at risk of being invalidated or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses and could distract our personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

***If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.***

Our registered or unregistered trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks. During trademark registration proceedings, we may receive rejections of our applications by the USPTO or in other foreign jurisdictions. Although we are given an opportunity to respond to such rejections, we may be unable to overcome them. In addition, in the USPTO and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, which may not survive such proceedings. Moreover, any name we have proposed to use with our product candidate in the United States must be approved by the FDA, regardless of whether we have registered it, or applied to register it, as a trademark. Similar requirements exist in Europe. The FDA typically conducts a review of proposed product names, including an evaluation of potential for confusion with other product names. If the FDA or an equivalent administrative body in a foreign jurisdiction objects to any of our proposed proprietary product names, we may be required to expend significant additional resources in an effort to identify a suitable substitute name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA. Furthermore, in many countries, owning and maintaining a trademark registration may not provide an adequate defense against a subsequent infringement claim asserted by the owner of a senior trademark.

We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition among potential partners or customers in our markets of interest. At times, competitors or other third parties may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or trade names. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business may be adversely affected. Our efforts to enforce or protect our proprietary rights related to trademarks, trade names, domain name or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely affect our business, financial condition, results of operations and prospects.

***Intellectual property rights do not necessarily address all potential threats.***

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make products that are similar to our product candidates or utilize similar technology but that are not covered by the claims of the patents that we license or may own;
- we or our licensors or collaborators might not have been the first to make the inventions covered by our current or future patent applications;
- we or our licensors or collaborators might not have been the first to file patent applications covering our inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- it is possible that the pending and future patent applications we own or in-license will not lead to issued patents;

- issued patents that we own or in-license may be held invalid or unenforceable, including as a result of legal challenges by our competitors or other third parties;
- our competitors or other third parties might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable;
- we may fail to identify potential patentable subject matter and/or may fail to file on it;
- the patents of others may harm our business; and
- we may choose not to file for patent protection in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent application covering such intellectual property.

Should any of the foregoing occur, it could adversely affect our business, financial condition, results of operations and prospects.

***We partially depend on intellectual property licensed from third parties, and our licensors may not always act in our best interest. If we fail to comply with our obligations under our intellectual property licenses, if the licenses are terminated or if disputes regarding these licenses arise, we could lose significant rights that are important to our business.***

We are dependent, in part, on patents, know-how and proprietary technology licensed from others. We are a party to a number of license agreements under which we are granted rights to intellectual property that are important to our business and we may enter into additional license agreements in the future. Our existing license agreements impose, and we expect that any future license agreements where we in-license intellectual property, will impose on us, various development, regulatory and/or commercial diligence obligations, payment of milestones and/or royalties and other obligations. If we fail to comply with our obligations under these agreements, or we are subject to bankruptcy-related proceedings, the licensor may have the right to terminate the license, in which event we would not be able to develop or market products covered by the license.

If we or our licensors fail to adequately protect our licensed intellectual property, our ability to commercialize product candidates could suffer. We do not have complete control over the maintenance, prosecution and litigation of our in-licensed patents and patent applications and may have limited control over future intellectual property that may be in-licensed. For example, we cannot be certain that activities such as the maintenance and prosecution by our licensors have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents and other intellectual property rights. It is possible that our licensors' infringement proceedings or defense activities may be less vigorous than had we conducted them ourselves or may not be conducted in accordance with our best interests.

In addition, the agreements under which we license intellectual property or technology from third parties are complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant patents, know-how and proprietary technology, or increase what we believe to be our financial or other obligations under the relevant agreement. Disputes that may arise between us and our licensors regarding intellectual property subject to a license agreement could include disputes regarding:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether and the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;

- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our product candidates and what activities satisfy those diligence obligations; and
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on reasonable terms, we may be unable to successfully develop and commercialize the affected technology or product candidates. As a result, any termination of or disputes over our intellectual property licenses could result in the loss of our ability to develop and commercialize our product candidates, or we could lose other significant rights, any of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

For example, our agreements with certain of our third-party research partners provide that improvements developed in the course of our relationship may be owned solely by either us or our third-party research partner, or jointly between us and the third party. If we determine that rights to such improvements owned solely by a research partner or other third party with whom we collaborate are necessary to commercialize our product candidates or maintain our competitive advantage, we may need to obtain a license from such third party in order to use the improvements and continue developing, manufacturing or marketing our product candidates. We may not be able to obtain such a license on an exclusive basis, on commercially reasonable terms, or at all, which could prevent us from commercializing our product candidates or allow our competitors or others the chance to access technology that is important to our business. We also may need the cooperation of any co-owners of our intellectual property in order to enforce such intellectual property against third parties, and such cooperation may not be provided to us.

***We may not be successful in obtaining or maintaining necessary rights to product components and processes for our development pipeline through acquisitions and in-licenses.***

The growth of our business may depend in part on our ability to acquire, in-license or use third-party proprietary rights. For example, our product candidates may require specific formulations to work effectively and efficiently, we may develop product candidates containing our compounds and pre-existing pharmaceutical compounds, or we may be required by the FDA or comparable foreign regulatory authorities to provide a companion diagnostic test or tests with our product candidates, any of which could require us to obtain rights to use intellectual property held by third parties. In addition, with respect to any patents we may co-own with third parties, we may require licenses to such co-owner's interest to such patents. We may be unable to acquire or in-license any compositions, methods of use, processes or other third-party intellectual property rights from third parties that we identify as necessary or important to our business operations. In addition, we may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. Were that to happen, we may need to cease use of the compositions or methods covered by those third-party intellectual property rights, and may need to seek to develop alternative approaches that do not infringe on those intellectual property rights, which may entail additional costs and development delays, even if we were able to develop such alternatives, which may not be feasible. Even if we are able to obtain a license, it may be non-exclusive, which means that our competitors may also receive access to the same technologies licensed to us. In that event, we may be required to expend significant time and resources to develop or license replacement technology.

Additionally, we sometimes collaborate with academic institutions to accelerate our preclinical research or development under written agreements with these institutions. In certain cases, these institutions provide us with an option to negotiate a license to any of the institution's rights in technology resulting from the

collaboration. Even if we hold such an option, we may be unable to negotiate a license from the institution within the specified timeframe or under terms that are acceptable to us. If we are unable to do so, the institution may offer the intellectual property rights to others, potentially blocking our ability to pursue our program.

The licensing and acquisition of third-party intellectual property rights is a competitive area, and companies that may be more established or have greater resources than we do may also be pursuing strategies to license or acquire third-party intellectual property rights that we may consider necessary or attractive in order to commercialize our product candidates. More established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. There can be no assurance that we will be able to successfully complete these types of negotiations and ultimately acquire the rights to the intellectual property surrounding the additional product candidates that we may seek to develop or market. If we are unable to successfully obtain rights to required third-party intellectual property or to maintain the existing intellectual property rights we have, we may have to abandon development of certain programs and our business financial condition, results of operations and prospects could suffer.

***We and our service providers may be subject to a variety of privacy and data security laws and contractual obligations, which could increase compliance costs and our failure to comply with them could subject us to potentially significant fines or penalties, harm our reputation and otherwise harm our business.***

We maintain a large quantity of sensitive information, including confidential business and patient health information in connection with our preclinical studies, and are subject to laws and regulations governing the privacy and security of such information. The global data protection landscape is rapidly evolving, and we may be affected by or subject to new, amended or existing laws and regulations in the future, including as our operations continue to expand or if we operate in foreign jurisdictions. These laws and regulations may be subject to differing interpretations, which adds to the complexity of processing personal information. Guidance on implementation and compliance practices are often updated or otherwise revised.

In the United States, there are numerous federal and state privacy and data security laws and regulations governing the collection, use, disclosure and protection of personal information, including federal and state health information privacy laws, federal and state security breach notification laws and federal and state consumer protection laws. Each of these laws is subject to varying interpretations and constantly evolving. By way of example, HIPAA imposes privacy and security requirements and breach reporting obligations with respect to individually identifiable health information upon “covered entities” (health plans, health care clearinghouses and certain health care providers), and their respective business associates and subcontractors, individuals or entities that create, receive, maintain or transmit protected health information in connection with providing a service for or on behalf of a covered entity, as well as their covered subcontractors. HIPAA mandates the reporting of certain breaches of health information to the US Department of Health and Human Services (HHS), affected individuals and if the breach is large enough, the media. Entities that are found to be in violation of HIPAA as the result of a breach of unsecured protected health information, a complaint about privacy practices or an audit by HHS, may be subject to significant civil, criminal and administrative fines and penalties and/or additional reporting and oversight obligations if required to enter into a resolution agreement and corrective action plan with HHS to settle allegations of HIPAA non-compliance. Even when HIPAA does not apply, according to the US Federal Trade Commission (FTC), failing to take appropriate steps to keep consumers’ personal information secure may constitute unfair acts or practices in or affecting commerce in violation of Section 5(a) of the Federal Trade Commission Act. The FTC expects a company’s data security measures to be reasonable and appropriate in light of the sensitivity and volume of consumer information it holds, the size and complexity of its business and the cost of available tools to improve security and reduce vulnerabilities.

In addition, certain state laws govern the privacy and security of health-related and other personal information in certain circumstances, some of which are more stringent than HIPAA and many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts. By way of example, the California Consumer Privacy Act (CCPA), which went into effect on January 1, 2020, gives California residents expanded rights to access and delete their personal information, opt out of certain personal information sharing, and receive detailed information about how their personal information is used. The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches that is expected to increase data breach litigation. The CCPA has been amended from time to time, and it is possible that further amendments will be enacted, but even in its current form it remains unclear how various provisions of the CCPA will be interpreted and enforced. The CCPA may increase our compliance costs and potential liability. Further, California voters recently approved the California Privacy Rights Act of 2020 (CPRA) that goes into effect on January 1, 2023. It is expected that the CPRA would, among other things, give California residents the ability to limit the use of their sensitive personal information, provide for penalties for CPRA violations concerning California residents under the age of 16, and establish a new California Privacy Protection Agency to implement and enforce the law. Some observers have noted that the CCPA and the CPRA could mark the beginning of a trend toward more stringent privacy legislation in the United States, which could increase our potential liability and adversely affect our business.

In Europe, Regulation 2016/676, known as the General Data Protection Regulation (GDPR), went into effect in May 2018. The GDPR governs the collection, use, disclosure, transfer or other processing of personal data of individuals within the European Economic Area (EEA). Among other things, the GDPR requires the establishment of a lawful basis for the processing of data, imposes requirements relating to the consent of the individuals to whom the personal data relates, including detailed notices for clinical trial subjects and investigators, as well as requirements regarding the security of personal data and notification of data processing obligations to the competent national data processing authorities. In addition, the GDPR increases the scrutiny of transfers of personal data from clinical trial sites located in the EEA to the United States and other jurisdictions that the European Commission does not recognize as having “adequate” data protection laws. The GDPR imposes substantial fines for breaches and violations (up to the greater of €20 million or 4% of consolidated annual worldwide gross revenue). The GDPR also confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies and obtain compensation for damages resulting from violations of the GDPR.

Recent legal developments in Europe have created complexity and uncertainty regarding transfers of personal data from the EEA to the United States. For example, on July 16, 2020, the Court of Justice of the European Union (CJEU) invalidated the EU-US Privacy Shield Framework (Privacy Shield) under which personal data could be transferred from the EEA to United States entities that had self-certified under the Privacy Shield scheme. While the CJEU upheld the adequacy of the standard contractual clauses (a standard form of contract approved by the European Commission as an adequate personal data transfer mechanism, and potential alternative to the Privacy Shield), it made clear that reliance on them alone may not necessarily be sufficient in all circumstances. Use of the standard contractual clauses must now be assessed on a case-by-case basis taking into account the legal regime applicable in the destination country, in particular applicable surveillance laws and rights of individuals and additional measures and/or contractual provisions may need to be put in place, however, the nature of these additional measures is currently uncertain. In addition, the European Commission recently proposed updates to the standard contractual clauses. Such developments may cause us to have to make further expenditures, limit our ability to process personal data, change internal business processes or otherwise affect or restrict sales and operations.

Further, the exit of the United Kingdom (UK) from the EU, often referred to as Brexit, has created uncertainty with regard to data protection regulation in the UK. Specifically, the UK exited the EU on January 1, 2020, subject to a transition period that ended December 31, 2020. Under the post-Brexit Trade and Cooperation

Agreement between the EU and the UK, the UK and EU have agreed that transfers of personal data to the UK from EEA Member States will not be treated as 'restricted transfers' to a non-EEA country for a period of up to four months from January 1, 2021, plus a potential further two months extension (the Extended Adequacy Assessment Period). Although the current maximum duration of the Extended Adequacy Assessment Period is six months, it may end sooner, for example, in the event that the European Commission adopts an adequacy decision in respect of the UK, or the UK amends the UK GDPR and/or makes certain changes regarding data transfers under the UK GDPR/Data Protection Act 2018 without the consent of the EU (unless those amendments or decisions are made simply to keep relevant UK laws aligned with the EU's data protection regime). If the European Commission does not adopt an 'adequacy decision' in respect of the UK prior to the expiry of the Extended Adequacy Assessment Period, from that point onwards the UK will be an 'inadequate third country' under the GDPR and transfers of personal data from the EEA to the UK will require a 'transfer mechanism' such as the Standard Contractual Clauses.

In many jurisdictions, enforcement actions and consequences for noncompliance are rising. In the United States, these include enforcement actions in response to rules and regulations promulgated under the authority of federal agencies and state attorneys general and legislatures and consumer protection agencies. In addition, privacy advocates and industry groups have regularly proposed, and may propose in the future, self-regulatory standards that may legally or contractually apply to us. If we fail to follow these security standards, even if no personal information is compromised, we may incur significant fines or experience a significant increase in costs. Many state legislatures have adopted legislation that regulates how businesses operate online, including measures relating to privacy, data security and data breaches. Laws in all 50 US states and the District of Columbia require businesses to provide notice to affected consumers whose unencrypted personal information has been disclosed as a result of a data breach. These laws are not consistent, and compliance in the event of a widespread data breach is difficult and may be costly. We also may be required to notify regulators, credit reporting agencies or other counterparties of a security breach. Such notifications are costly, and the disclosures or the failure to comply such requirements, could lead to material adverse effects, including without limitation, negative publicity, a loss of consumer confidence or security measures or breach of contract claims.

Compliance with US and international data protection laws and regulations could require us to take on more onerous obligations in our contracts, restrict our ability to collect, use and disclose data, update our data privacy and security policies and procedures, or in some cases, impact our ability to operate in certain jurisdictions. Failure by us or our collaborators and service providers to comply with US and international data protection laws and regulations could result in government enforcement actions (which could include civil or criminal penalties), private litigation and/or adverse publicity and could negatively affect our operating results and business. Moreover, clinical trial subjects about whom we or our potential collaborators obtain information, as well as the providers who share this information with us, may contractually limit our ability to use and disclose the information. Claims that we have violated individuals' privacy rights, failed to comply with data protection laws, or breached our contractual obligations, even if we are not found liable, could be expensive and time-consuming to defend, could result in adverse publicity and could have a material adverse effect on our business, financial condition, results of operations and prospects.

We cannot assure you that our third-party partners and service providers with access to our customers', suppliers' and employees' personally identifiable and other sensitive or confidential information in relation to which we are responsible will not breach contractual obligations imposed by us or violate privacy and data security laws, or that they will not experience security breaches or attempts thereof, which could have a corresponding effect on our business, including putting us in breach of our obligations under the privacy and data security laws, which could in turn adversely affect our business, results of operations and financial condition. We cannot assure you that our contractual measures and our own privacy- and security-related

safeguards will protect us from the risks associated with the third-party processing, storage and transmission of such information.

## Risks related to this offering and ownership of our common stock

***There has been no public market for our common stock and an active, liquid and orderly market for our common stock may not develop, and you may not be able to resell your common stock at or above the public offering price.***

Prior to this offering, there has been no public market for our common stock. Although our common stock has been approved for listing on the Nasdaq Global Market (Nasdaq), an active trading market for our common stock may never develop or be sustained following this offering. We and the representatives of the underwriters will determine the initial public offering price of our common stock through negotiations and the negotiated price may not be indicative of the market price of our common stock after this offering. This price will not necessarily reflect the price at which investors in the market will be willing to buy and sell our shares following this offering. In addition, an active trading market may not develop following the consummation of this offering or, if it is developed, may not be sustained. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable. An inactive market may also impair our ability to raise capital by selling shares and may impair our ability to acquire other businesses or technologies using our shares as consideration, which, in turn, could materially adversely affect our business.

***The trading price of the shares of our common stock could be highly volatile, and purchasers of our common stock could incur substantial losses.***

Our stock price is likely to be volatile. The stock market in general and the market for stock of biopharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, investors may not be able to sell their common stock at or above the initial public offering price. The market price for our common stock may be influenced by those factors discussed in this “Risk factors” section and many others, including:

- results of our clinical trials and preclinical studies, and the results of trials of our competitors or those of other companies in our market sector;
- our ability to enroll subjects in our future clinical trials;
- regulatory approval of our product candidates, or limitations to specific label indications or patient populations for its use, or changes or delays in the regulatory review process;
- regulatory or legal developments in the United States and other countries;
- changes in the structure of healthcare payment systems;
- the success or failure of our efforts to develop, acquire or license additional product candidates;
- innovations, clinical trial results, product approvals and other developments regarding our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- manufacturing, supply or distribution delays or shortages;
- any changes to our relationship with any manufacturers, suppliers, collaborators or other strategic partners;
- achievement of expected product sales and profitability;

- variations in our financial results or those of companies that are perceived to be similar to us, or fluctuations in the valuation of such other companies;
- market conditions in the biopharmaceutical sector and issuance of securities analysts' reports or recommendations;
- trading volume of our common stock;
- an inability to obtain additional funding;
- sales of our stock by us, our insiders and our other stockholders;

  the impact of any natural disasters or public health emergencies, such as the COVID-19 pandemic;
- general economic, industry and market conditions other events or factors, many of which are beyond our control;
- additions or departures of key personnel;
- intellectual property, product liability or other litigation against us;
- actual or anticipated changes in estimates as to financial results, development timelines, or recommendations by securities analysts;
- expiration of market stand-off or lock-up agreements;
- changes in our capital structure, such as future issuances of securities and the incurrence of additional debt; and
- changes in accounting standards, policies, guidelines, interpretations or principles.

In addition, in the past, stockholders have initiated class action lawsuits against biopharmaceutical companies following periods of volatility in the market prices of these companies' stock. Such litigation, if instituted against us, could cause us to incur substantial costs and divert our management's attention and resources, which could have a material adverse effect on our business, financial condition and results of operations.

***We may allocate the net proceeds from this offering in ways that you and other stockholders may not approve.***

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in "Use of proceeds." Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment, and the failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds from this offering in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the US government. These investments may not yield a favorable return to our stockholders. If we do not invest or apply the net proceeds from this offering in ways that enhance stockholder value, we may fail to achieve expected results, which could cause our stock price to decline.

***You will suffer immediate and substantial dilution in the net tangible book value of the common stock you purchase.***

The initial public offering price of our common stock is substantially higher than the pro forma as adjusted net tangible book value per share of our outstanding common stock immediately after the completion of this offering. Purchasers of common stock in this offering will experience immediate dilution of approximately

$ per share, assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus. In the past, we issued options to acquire common stock at prices significantly below the initial public offering price. To the extent these outstanding options are ultimately exercised, investors purchasing common stock in this offering will sustain further dilution. For a further description of the dilution that you will experience immediately after this offering, see “Dilution.”

***After this offering, our executive officers, directors and principal stockholders, if they choose to act together, will continue to have the ability to significantly influence all matters submitted to stockholders for approval.***

Following the completion of this offering, our executive officers, directors and greater than 5% stockholders, in the aggregate, will own approximately % of our outstanding common stock (assuming no exercise of the underwriters’ option to purchase additional shares and no exercise of outstanding options and no purchases of shares in this offering or the directed share program by any of this group). As a result, such persons, acting together, will have the ability to significantly influence all matters submitted to our board of directors or stockholders for approval, including the appointment of our management, the election and removal of directors and approval of any significant transaction, as well as our management and business affairs. This concentration of ownership may have the effect of delaying, deferring or preventing a change in control, impeding a merger, consolidation, takeover or other business combination involving us, or discouraging a potential acquiror from making a tender offer or otherwise attempting to obtain control of our business, even if such a transaction would benefit other stockholders.

***We do not currently intend to pay dividends on our common stock, and, consequently, your ability to achieve a return on your investment will depend on appreciation, if any, in the price of our common stock.***

We have never declared or paid any cash dividend on our common stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. In addition, any future debt agreements may preclude us from paying dividends. Any return to stockholders will therefore be limited to the appreciation of their stock. There is no guarantee that shares of our common stock will appreciate in value or even maintain the price at which stockholders have purchased their shares.

***Sales of a substantial number of shares of our common stock by our existing stockholders in the public market could cause our stock price to fall.***

Sales of a substantial number of shares of our common stock in the public market or the perception that these sales might occur could significantly reduce the market price of our common stock and impair our ability to raise adequate capital through the sale of additional equity securities.

Based on shares of common stock outstanding as of March 31, 2021, upon the closing of this offering, we will have outstanding a total of shares of common stock, assuming no exercise of the underwriters’ option to purchase additional shares and no exercise of outstanding options. Of these shares, only the shares of common stock sold in this offering by us, plus any shares sold upon exercise of the underwriters’ option to purchase additional shares, will be freely tradable, without restriction, in the public market immediately following this offering, unless they are purchased by one of our affiliates.

Our directors and executive officers and holders of substantially all of our outstanding securities have entered into lock-up agreements with the underwriters pursuant to which they may not, with limited exceptions, for a period of 180 days from the date of this prospectus, offer, sell or otherwise transfer or dispose of any of our securities, without the prior written consent of J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC and BofA Securities, Inc. The underwriters may permit our officers, directors and other securityholders who are subject to the lock-up agreements to sell shares prior to the expiration of the lock-up agreements at any time in their sole discretion. See “Underwriting.” Sales of these shares, or perceptions that they will be sold, could cause the

trading price of our common stock to decline. After the lock-up agreements expire, up to an additional shares of common stock will be eligible for sale in the public market, of which shares are held by directors, executive officers and other affiliates and will be subject to volume limitations under Rule 144 under the Securities Act.

In addition, as of March 31, 2021, shares of common stock that are subject to outstanding options under our employee benefit plans will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements and Rule 144 and Rule 701 under the Securities Act. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

After this offering, the holders of shares of our outstanding common stock, or approximately % of our total outstanding common stock based on shares outstanding as of March 31, 2021, will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to vesting and the 180-day lock-up agreements described above. See “Description of capital stock—Registration rights.” Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares held by affiliates, as defined in Rule 144 under the Securities Act. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

***We are an emerging growth company and a smaller reporting company, and the reduced disclosure requirements applicable to emerging growth companies and smaller reporting companies may make our common stock less attractive to investors.***

We are an emerging growth company, as defined in the Jumpstart Our Business Startups Act (JOBS ACT), and may remain an emerging growth company until the last day of the fiscal year following the fifth anniversary of the completion of this offering. However, if certain events occur prior to the end of such five-year period, including if we become a large accelerated filer, as defined under the Exchange Act, our annual gross revenue exceed $1.07 billion or we issue more than $1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced “Management’s discussion and analysis of financial condition and results of operations” disclosure;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor’s report providing additional information about the audit and the financial statements, unless the SEC determines the new rules are necessary for protecting the public;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

We have taken advantage of reduced reporting burdens in this prospectus. In particular, in this prospectus, we have provided only two years of audited consolidated financial statements and have not included all of the

executive compensation related information that would be required if we were not an emerging growth company. We cannot predict whether investors will find our common stock less attractive if we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be reduced or more volatile. In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of these accounting standards until they would otherwise apply to private companies. We have elected to avail ourselves of this exemption and, therefore, we will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

We are also a smaller reporting company as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as (i) our voting and non-voting common stock held by non-affiliates is less than $250.0 million measured on the last business day of our second fiscal quarter, or (ii) our annual revenue is less than $100.0 million during the most recently completed fiscal year and the market value of our voting and non-voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

***Provisions in our charter documents and under Delaware law could discourage a takeover that stockholders may consider favorable and may lead to entrenchment of management.***

Our amended and restated certificate of incorporation and amended and restated bylaws that will be in effect immediately prior to the consummation of this offering will contain provisions that could significantly reduce the value of our shares to a potential acquiror or delay or prevent changes in control or changes in our management without the consent of our board of directors. The provisions in our charter documents will include the following:

- a classified board of directors with three-year staggered terms, which may delay the ability of stockholders to change the membership of a majority of our board of directors;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the exclusive right of our board of directors, unless the board of directors grants such right to the stockholders, to elect a director to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- the required approval of at least 66-2/3% of the shares entitled to vote to remove a director for cause, and the prohibition on removal of directors without cause;
- the ability of our board of directors to authorize the issuance of shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquiror;
- the ability of our board of directors to alter our amended and restated bylaws without obtaining stockholder approval;
- the required approval of at least 66-2/3% of the shares entitled to vote to adopt, amend or repeal our amended and restated bylaws or repeal the provisions of our amended and restated certificate of incorporation regarding the election and removal of directors;

- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- an exclusive forum provision providing that the Court of Chancery of the State of Delaware will be the exclusive forum for certain actions and proceedings;
- the requirement that a special meeting of stockholders may be called only by the board of directors, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors; and
- advance notice procedures that stockholders must comply with in order to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of us.

We are also subject to the anti-takeover provisions contained in Section 203 of the Delaware General Corporation Law. Under Section 203, a corporation may not, in general, engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other exceptions, the board of directors has approved the transaction.

***Our current amended and restated certificate of incorporation provides, and our amended and restated certificate of incorporation will provide, that the Court of Chancery of the State of Delaware will be the exclusive forum for substantially all disputes between us and our stockholders and that the federal district courts shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees or the underwriters or any offering giving rise to such claim.***

Our current amended and restated certificate of incorporation provides, and our amended and restated certificate of incorporation that will be in effect immediately prior to the consummation of this offering will provide, that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a breach of fiduciary duty, any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws, or any action asserting a claim against us that is governed by the internal affairs doctrine; provided, that, this provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, our amended and restated certificate of incorporation will also provide that unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act, including all causes of action asserted against any defendant named in such complaint. For the avoidance of doubt, this provision is intended to benefit and may be enforced by us, our officers and directors, the underwriters to any offering giving rise to such complaint, and any other professional entity whose profession gives authority to a statement made by that person or entity and who has prepared or certified any part of the documents underlying the offering. These choice of forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees and result in increased costs for investors to bring a claim. By agreeing to this provision, however, stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder. Furthermore, the enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. If a court were to find the choice of forum provisions in our amended and restated certificate of incorporation to be inapplicable

or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect our business and financial condition.

***Participation in this offering by our existing stockholders and/or their affiliated entities may reduce the public float for our common stock.***

To the extent certain of our existing stockholders and their affiliated entities participate in this offering, such purchases would reduce the non-affiliate public float of our shares, meaning the number of shares of our common stock that are not held by officers, directors and controlling stockholders. A reduction in the public float could reduce the number of shares that are available to be traded at any given time, thereby adversely impacting the liquidity of our common stock and depressing the price at which you may be able to sell shares of common stock purchased in this offering.

## General risk factors

***We will incur significant increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives.***

As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. We will be subject to the reporting requirements of the Exchange Act, which will require, among other things, that we file with the SEC annual, quarterly and current reports with respect to our business and financial condition. In addition, Sarbanes-Oxley, as well as rules subsequently adopted by the SEC and Nasdaq to implement provisions of Sarbanes-Oxley, impose significant requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Further, pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the SEC has adopted additional rules and regulations in these areas, such as mandatory “say on pay” voting requirements that will apply to us when we cease to be an emerging growth company. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which we operate our business in ways we cannot currently anticipate.

We expect the rules and regulations applicable to public companies to substantially increase our legal and financial compliance costs and to make some activities more time-consuming and costly. If these requirements divert the attention of our management and personnel from other business concerns, they could have a material adverse effect on our business, financial condition and results of operations. The increased costs will decrease our net income or increase our net loss, and may require us to reduce costs in other areas of our business or increase the prices of our products or services. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to incur substantial costs to maintain the same or similar coverage. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

***We are subject to US and certain foreign export and import controls, sanctions, embargoes, anti-corruption laws and anti-money laundering laws and regulations. We could face criminal liability and other serious consequences for violations, which could harm our business.***

We are subject to export control and import laws and regulations, including the US Export Administration Regulations, US Customs regulations, and various economic and trade sanctions regulations administered by

the US Treasury Department's Office of Foreign Assets Controls, and anti-corruption and anti-money laundering laws and regulations, including the US Foreign Corrupt Practices Act of 1977, as amended, the US domestic bribery statute contained in 18 U.S.C. § 201, the US Travel Act, the USA PATRIOT Act and other state and national anti-bribery and anti-money laundering laws in the countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, CROs, contractors and other collaborators and partners from authorizing, promising, offering, providing, soliciting or receiving, directly or indirectly, improper payments or anything else of value to or from recipients in the public or private sector. We may engage third parties for clinical trials outside of the United States, to sell our products abroad once we enter a commercialization phase, and/or to obtain necessary permits, licenses, patent registrations and other regulatory approvals. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities and other organizations. We can be held liable for the corrupt or other illegal activities of our employees, agents, CROs, contractors and other collaborators and partners, even if we do not explicitly authorize or have actual knowledge of such activities. We are also subject to other US laws and regulations governing export controls, as well as economic sanctions and embargoes on certain countries and persons.

Any violations of the laws and regulations described above may result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm and other consequences.

***We and any of our third-party manufacturers or suppliers may use potent chemical agents and hazardous materials, and any claims relating to improper handling, storage or disposal of these materials could be time-consuming or costly.***

We and any of our third-party manufacturers or suppliers and current or potential future collaborators will use biological materials, potent chemical agents and may use hazardous materials, including chemicals and biological agents and compounds that could be dangerous to human health and safety of the environment. Our operations and the operations of our third-party manufacturers and suppliers also produce hazardous waste products. Federal, state and local laws and regulations govern the use, generation, manufacture, storage, handling and disposal of these materials and wastes. Compliance with applicable environmental laws and regulations may be expensive, and current or future environmental laws and regulations may impair our product development efforts. In addition, we cannot eliminate the risk of accidental injury or contamination from these materials or wastes. We do not carry specific biological or hazardous waste insurance coverage, and our property, casualty and general liability insurance policies specifically exclude coverage for damages and fines arising from biological or hazardous waste exposure or contamination. In the event of contamination or injury, we could be held liable for damages or be penalized with fines in an amount exceeding our resources, and our clinical trials or regulatory approvals could be suspended. Although we maintain workers' compensation insurance for certain costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials or other work-related injuries, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for toxic tort claims that may be asserted against us in connection with our storage or disposal of biologic, hazardous or radioactive materials.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations, which have tended to become more stringent over time. These current or future laws and regulations may impair our research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions or liabilities, which could materially adversely affect our business, financial condition, results of operations and prospects.

***Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.***

Our operations could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or manmade disasters or business interruptions, for which we are predominantly self-insured. We rely on third-party manufacturers to produce our product candidates. Our ability to obtain clinical supplies of our product candidates could be disrupted if the operations of these suppliers were affected by a man-made or natural disaster or other business interruption. In addition, our corporate headquarters is located in San Diego, California near major earthquake faults and fire zones, and the ultimate impact on us of being located near major earthquake faults and fire zones and being consolidated in a certain geographical area is unknown. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses.

***Unstable market and economic conditions may have serious adverse consequences on our business, financial condition and stock price.***

From time to time, the global credit and financial markets have experienced extreme volatility and disruptions, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. There can be no assurance that future deterioration in credit and financial markets and confidence in economic conditions will not occur. Our general business strategy may be adversely affected by any such economic downturn, volatile business environment or continued unpredictable and unstable market conditions. If the current equity and credit markets deteriorate, it may make any necessary debt or equity financing more difficult, more costly and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development plans. In addition, there is a risk that one or more of our current service providers, manufacturers and other partners may not survive an economic downturn, which could directly affect our ability to attain our operating goals on schedule and on budget.

***Changes in US tax law may materially adversely affect our financial condition, results of operations and cash flows.***

Changes in laws and policy relating to taxes may have an adverse effect on our financial condition, results of operations and cash flows. For example, the Tax Act significantly changed the US federal income taxation of US corporations. The Tax Act remains unclear in various respects and has been, and may continue to be, the subject of amendments and technical corrections, as well as interpretations and implementing regulations by the Treasury and Internal Revenue Service (IRS), which have lessened or increased certain adverse impacts of the Tax Act and may continue to do so in the future. In addition, it is unclear how these US federal income tax changes will affect state and local taxation, which often uses federal taxable income as a starting point for computing state and local tax liabilities. On March 27, 2020, the CARES Act was signed into law to address the COVID-19 crisis. The CARES Act is an approximately $2 trillion emergency economic stimulus package that includes numerous US federal income tax provisions, including the modification of: (i) NOL rules (as discussed above), (ii) the alternative minimum tax refund, and (iii) business interest deduction limitations under Section 163(j) of the Code. We continue to work with our tax advisors and auditors to determine the full impact the Tax Act and the CARES Act will have on us. We urge our investors to consult with their legal and tax advisors with respect to any changes in tax law and the potential tax consequences of investing in our common stock.

***If securities or industry analysts do not publish research or reports or publish unfavorable research or reports about our business, our stock price and trading volume could decline.***

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us, our business, our market or our competitors. We do not currently have and may never obtain research coverage by securities and industry analysts. If no securities or industry analysts commence coverage of our company, the trading price for our stock would be negatively impacted. In the event we obtain securities or industry analyst coverage, if one or more of the analysts who covers us downgrades our stock, our stock price would likely decline. If one or more of these analysts ceases to cover us or fails to regularly publish reports on us, interest in our stock could decrease, which could cause our stock price or trading volume to decline.

***If we fail to maintain proper and effective internal control over financial reporting, our ability to produce accurate and timely financial statements could be impaired, investors may lose confidence in our financial reporting and the trading price of our common stock may decline.***

Pursuant to Section 404 of Sarbanes-Oxley, our management will be required to report upon the effectiveness of our internal control over financial reporting beginning with the annual report for our fiscal year ending December 31, 2022. When we lose our status as an “emerging growth company” and reach an accelerated filer threshold, our independent registered public accounting firm will be required to attest to the effectiveness of our internal control over financial reporting. The rules governing the standards that must be met for our management to assess our internal control over financial reporting are complex and require significant documentation, testing and possible remediation. To comply with the requirements of being a reporting company under the Exchange Act, we may need to upgrade our information technology systems; implement additional financial and management controls, reporting systems and procedures; and hire additional accounting and finance staff. If we or, if required, our auditors are unable to conclude that our internal control over financial reporting is effective, investors may lose confidence in our financial reporting and the trading price of our common stock may decline.

We cannot assure you that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition, results of operations or cash flows. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting once that firm begin its Section 404 reviews, investors may lose confidence in the accuracy and completeness of our financial reports, the market price of our common stock could decline, and we could be subject to sanctions or investigations by Nasdaq, the SEC or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

***Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.***

Upon the closing of this offering, we will become subject to the periodic reporting requirements of the Exchange Act. We designed our disclosure controls and procedures to reasonably assure that information we must disclose in reports we file or submit under the Exchange Act is accumulated and communicated to management, and recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures or internal controls and procedures, no matter how well-conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

These inherent limitations include the facts that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected.

***We could be subject to securities class action litigation.***

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because biotechnology and biopharmaceutical companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of our management's attention and resources, which could harm our business.

# Special note regarding forward-looking statements

This prospectus contains forward-looking statements. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations and financial position, business strategy, research and development plans, the anticipated timing, costs, design and conduct of our ongoing and planned preclinical studies and planned clinical trials for our product candidates, the timing and likelihood of regulatory filings and approvals for our product candidates, our ability to commercialize our product candidates, if approved, the impact of the COVID-19 pandemic on our business, the pricing and reimbursement of our product candidates, if approved, the potential to develop future product candidates, the potential benefits of strategic collaborations and our intent to enter into any strategic arrangements, the timing and likelihood of success, plans and objectives of management for future operations, and future results of anticipated product development efforts, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplates,” “believes,” “estimates,” “predicts,” “potential” or “continue” or the negative of these terms or other similar expressions. The forward-looking statements in this prospectus are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. These forward-looking statements speak only as of the date of this prospectus and are subject to a number of risks, uncertainties and assumptions described under the sections titled “Risk factors” and “Management’s discussion and analysis of financial condition and results of operations” and elsewhere in this prospectus. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Except as required by applicable law, we undertake no obligation to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise. You should, however, review the factors and risks we describe in the reports we will file from time to time with the SEC after the date of this prospectus. See the section titled “Where you can find more information.”

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned not to rely unduly upon them.

# Market and industry data

We obtained the industry, market and competitive position data used throughout this prospectus from our own internal estimates and research, as well as from independent market research, industry and general publications and surveys, governmental agencies and publicly available information in addition to research, surveys and studies conducted by third parties. Internal estimates are derived from publicly available information released by industry analysts and third-party sources, our internal research and our industry experience, and are based on assumptions made by us based on such data and our knowledge of our industry and market, which we believe to be reasonable. In some cases, we do not expressly refer to the sources from which this data is derived. In that regard, when we refer to one or more sources of this type of data in any paragraph, you should assume that other data of this type appearing in the same paragraph is derived from the same sources, unless otherwise expressly stated or the context otherwise requires. In addition, while we believe the industry, market and competitive position data included in this prospectus is reliable and based on reasonable assumptions, such data involve risks and uncertainties and are subject to change based on various factors, including those discussed in the section titled “Risk factors.” These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties or by us.

# Use of proceeds

We estimate that the net proceeds to us from this offering will be approximately $ million (or approximately $ million if the underwriters exercise in full their option to purchase additional shares), assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Each $1.00 increase or decrease in the assumed initial public offering price of $ per share would increase or decrease, as applicable, the net proceeds to us from this offering by approximately $ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each increase or decrease of 1.0 million shares in the number of shares offered by us would increase or decrease, as applicable, the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $ million, assuming the assumed initial public offering price stays the same.

The principal purposes of this offering are to obtain additional capital to support our operations, to create a public market for our common stock and to facilitate our future access to the public equity markets. We currently intend to use the net proceeds from this offering, together with our existing cash, cash equivalents and investments, as follows:

- approximately $ million to $ million to fund the clinical development of ERAS-007 in our Phase 1b/2 HERKULES series of clinical trials, including through data readout(s) for one or multiple of such HERKULES trials;
- approximately $ million to $ million to fund the clinical development of ERAS-601, including through a data readout for the FLAGSHP-1 Phase 1 trial;
- approximately $ million to $ million to fund the ongoing discovery and development of our other current RAS/MAPK pathway-focused pipeline programs, including to advance one or multiple product candidate(s) into the clinic; and
- the remainder for working capital and general corporate purposes.

We may also use a portion of the remaining net proceeds and our existing cash, cash equivalents and investments to in-license, acquire, or invest in complementary businesses, technologies, products or assets. However, we have no current commitments or obligations to do so.

We believe, based on our current operating plan, that the net proceeds from this offering together with our existing cash, cash equivalents and investments, will be sufficient to fund our operations for at least the next months from the date of this prospectus. We have based these estimates on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect. The net proceeds from this offering, together with our existing cash, cash equivalents and investments, will not be sufficient to fund any of our product candidates through regulatory approval, and we anticipate needing to raise additional capital to complete the development of and commercialize our product candidates. Our expected use of proceeds from this offering described above represents our current intentions based on our present plans and business condition. We cannot predict with certainty all of the particular uses of the net proceeds from this offering or the actual amounts that we will spend on the uses set forth above. The net proceeds from this offering, together with our cash, cash equivalents and investments, will not be sufficient for us to fund all of our product candidates through regulatory approval, and we will need to raise additional capital to complete the development and commercialization of each of our product candidates.

The amounts and timing of our actual expenditures will depend on numerous factors, including the time and cost necessary to conduct our ongoing and planned preclinical studies and planned clinical trials, the results of such studies and trials, and other factors described in the section titled “Risk factors,” as well as the amount of cash used in our operations and any unforeseen cash needs. Therefore, our actual expenditures may differ materially from the estimates described above. We may find it necessary or advisable to use the net proceeds for other purposes, and we will have broad discretion in the application of the net proceeds.

Pending the uses described above, we plan to invest the net proceeds from this offering in short- and intermediate-term, investment grade interest-bearing instruments.

# Dividend policy

We have never declared or paid any cash dividends on our capital stock. We intend to retain future earnings, if any, to finance the operation of our business and do not anticipate paying any cash dividends in the foreseeable future. Any future determination related to dividend policy will be made at the discretion of our board of directors after considering our financial condition, results of operations, capital requirements, business prospects and other factors the board of directors deems relevant, and subject to the restrictions contained in any future financing instruments.

# Capitalization

The following table sets forth our cash, cash equivalents and investments and capitalization as of March 31, 2021:

- on an actual basis;
- on a pro forma basis to reflect (i) the automatic conversion of all outstanding shares of our convertible preferred stock into 85,516,454 shares of our common stock and the related reclassification of the carrying value of the convertible preferred stock to permanent equity immediately prior to the closing of this offering and (ii) the filing and effectiveness of our amended and restated certificate of incorporation immediately prior to the closing of this offering; and
- on a pro forma as adjusted basis to give further effect to our issuance and sale of shares of our common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma and pro forma as adjusted information below is illustrative only, and our cash, cash equivalents and investments and capitalization following the closing of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this information in conjunction with our consolidated financial statements and related notes included in this prospectus and the section titled “Management’s discussion and analysis of financial condition and results of operations” and other financial information contained in this prospectus.

| | As of March 31, 2021 | | |
|---|---|---|---|
| (in thousands, except share and par value data) | Actual | Pro forma | Pro forma as adjusted[1] |
| | | (unaudited) | |
| Cash, cash equivalents and investments | $ 217,340 | $ 217,340 | $ |
| Convertible preferred stock, $0.0001 par value; 97,622,409 shares authorized, 85,516,454 shares issued and outstanding, actual; no shares authorized, issued and outstanding, pro forma and pro forma as adjusted | 340,798 | — | |
| Stockholders’ (deficit) equity: | | | |
| Preferred stock, $0.0001 par value; no shares authorized, issued and outstanding, actual; shares authorized and no shares issued and outstanding, pro forma and pro forma as adjusted | — | — | |
| Common stock, $0.0001 par value; 156,000,000 shares authorized, 31,355,165 shares issued and 27,450,062 outstanding, excluding 3,905,103 shares subject to forfeiture or a right of repurchase, actual; 156,000,000 shares authorized, 116,871,619 shares issued and 112,966,516 outstanding, excluding 3,905,103 shares subject to forfeiture or a right of repurchase, pro forma; shares authorized, shares issued and shares outstanding, excluding 3,905,103 shares subject to forfeiture or a right of repurchase, pro forma as adjusted | 3 | 12 | |
| Additional paid-in capital | 4,156 | 344,945 | |
| Accumulated other comprehensive income | 1 | 1 | |
| Accumulated deficit | (133,419) | (133,419) | |
| Total stockholders’ (deficit) equity | (129,259) | 211,539 | |
| Total capitalization | $ 211,539 | $ 211,539 | $ |

(1) Each $1.00 increase or decrease in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease, as applicable, the pro forma as adjusted amount of each of our cash, cash equivalents and investments, additional paid-in capital, total stockholders' (deficit) equity and total capitalization by approximately $ , assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each increase or decrease of 1.0 million shares in the number of shares offered by us at the assumed initial public offering price of $ per share would increase or decrease, as applicable, the pro forma as adjusted amount of each of our cash, cash equivalents and investments, additional paid-in capital, total stockholders' (deficit) equity and total capitalization by approximately $ , after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters' option to purchase additional shares is exercised in full, our pro forma as adjusted cash, cash equivalents and investments, additional paid-in capital, total stockholders' (deficit) equity, and total capitalization as of March 31, 2021, would be $ million, $ million, $ million, and $ million, respectively.

The number of shares of our common stock issued and outstanding, pro forma and pro forma as adjusted, in the table above is based on 116,871,619 shares of our common stock outstanding as of March 31, 2021, including 3,905,103 shares subject to forfeiture or our right of repurchase, after giving effect to the automatic conversion of all outstanding shares of our convertible preferred stock into 85,516,454 shares of our common stock immediately prior to the closing of this offering, and excludes:

- 12,036,860 shares of common stock issuable upon the exercise of outstanding stock options as of March 31, 2021, with a weighted-average exercise price of $1.53 per share;
- 3,495,000 shares of common stock issuable upon the exercise of stock options granted after March 31, 2021, with a weighted-average exercise price of $4.84 per share;
- shares of common stock reserved for future issuance under the 2021 Plan, which will become effective in connection with this offering (which number does not include any potential evergreen increases pursuant to the terms of the 2021 Plan);
- shares of common stock reserved for future issuance under the ESPP, which will become effective in connection with this offering (which number does not include any potential evergreen increases pursuant to the terms of the ESPP); and
- shares of common stock issued to the Erasca Foundation on June , 2021.

# Dilution

If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the initial public offering price per share and the pro forma as adjusted net tangible book value per share of our common stock after this offering.

As of March 31, 2021, our historical net tangible book value (deficit) was $(129.3) million, or $(4.12) per share of our common stock, based on 31,355,165 shares of our common stock issued and outstanding as of such date, including 3,905,103 shares subject to forfeiture or our right of repurchase as of such date. Our historical net tangible book value per share represents total tangible assets less total liabilities and convertible preferred stock, divided by the number of shares of common stock outstanding at March 31, 2021.

On a pro forma basis, after giving effect to the automatic conversion of all outstanding shares of our convertible preferred stock into 85,516,454 shares of our common stock and the related reclassification of the carrying value of the convertible preferred stock to permanent equity immediately prior to the closing of this offering, our pro forma net tangible book value as of March 31, 2021 would have been approximately $211.5 million, or approximately $1.81 per share of our common stock.

After giving further effect to the sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of March 31, 2021 would have been approximately $ million, or approximately $ per share. This amount represents an immediate increase in pro forma net tangible book value of approximately $ per share to our existing stockholders and an immediate dilution in pro forma net tangible book value of approximately $ per share to new investors purchasing shares of common stock in this offering.

Dilution per share to new investors is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the initial public offering price per share paid by new investors. The following table illustrates this dilution (without giving effect to any exercise by the underwriters of their option to purchase additional shares):

| | | |
|---|---|---|
| Assumed initial public offering price per share | | $ |
| Historical net tangible book value (deficit) per share as of March 31, 2021 | $(4.12) | |
| Pro forma increase in historical net tangible book value per share as of March 31, 2021 attributable to the pro forma adjustments described above | 5.93 | |
| Pro forma net tangible book value per share as of March 31, 2021 | 1.81 | |
| Increase in pro forma net tangible book value per share attributable to new investors participating in this offering | | |
| Pro forma as adjusted net tangible book value per share after this offering | | |
| Dilution per share to new investors participating in this offering | | $ |

Each $1.00 increase or decrease in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease, as applicable, the pro forma as adjusted net tangible book value per share after this offering by approximately $ , and dilution in pro forma as adjusted net tangible book value per share to new investors by approximately $ , assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions

and the estimated offering expenses payable by us. Each increase or decrease of 1.0 million shares in the number of shares offered by us would increase or decrease, as applicable, our pro forma as adjusted net tangible book value per share after this offering by approximately $ per share and decrease or increase, as applicable, the dilution to investors participating in this offering by approximately $ per share, assuming that the assumed initial public offering price of $ per share remains the same, and after deducting the estimated underwriting discounts and commissions and the estimated offering expenses payable by us.

If the underwriters exercise their option to purchase additional shares of our common stock in full in this offering, the pro forma as adjusted net tangible book value after the offering would be approximately $ per share, the increase in pro forma as adjusted net tangible book value per share to existing stockholders would be approximately $ per share and the dilution per share to new investors would be $ per share, in each case assuming an initial public offering price of $ per share.

The following table summarizes on the pro forma as adjusted basis described above, as of March 31, 2021, the differences between the number of shares purchased from us, the total consideration paid to us in cash and the average price per share paid by existing stockholders for shares issued prior to this offering and the price to be paid by new investors in this offering. The calculations below are based on an assumed initial public offering price of $ per share, before deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

| | Shares purchased | | Total consideration | | Weighted-average price per share |
|---|---|---|---|---|---|
| | Number | Percent | Amount | Percent | |
| Existing stockholders before this offering[1] | | % | $ | % | $ |
| New investors participating in this offering | | | | | $ |
| Total | | 100.0% | $ | 100.0% | |

(1) The presentation in this table regarding ownership by existing stockholders does not give effect to any purchases that existing stockholders may make through our directed share program or otherwise purchase in this offering.

If the underwriters exercise their option to purchase additional shares of our common stock in full:

- the percentage of shares of common stock held by existing stockholders before this offering will decrease to approximately % of the total number of shares of our common stock outstanding after this offering; and
- the number of shares held by new investors participating in this offering will increase to , or approximately % of the total number of shares of our common stock outstanding after this offering.

The foregoing tables and calculations above (other than the historical net tangible book value calculations) are based on 116,871,619 shares of our common stock outstanding as of March 31, 2021, including 3,905,103 shares subject to forfeiture or our right of repurchase, after giving effect to the automatic conversion of all outstanding shares of our convertible preferred stock into 85,516,454 shares of our common stock immediately prior to the closing of this offering, and exclude:

- 12,036,860 shares of common stock issuable upon the exercise of outstanding stock options as of March 31, 2021, with a weighted-average exercise price of $1.53 per share;
- 3,495,000 shares of common stock issuable upon the exercise of stock options granted after March 31, 2021, with a weighted-average exercise price of $4.84 per share;
- shares of common stock reserved for future issuance under the 2021 Plan, which will become effective in connection with this offering (which number does not include any potential evergreen increases pursuant to the terms of the 2021 Plan);

- shares of common stock reserved for future issuance under the ESPP, which will become effective in connection with this offering (which number does not include any potential evergreen increases pursuant to the terms of the ESPP); and
- shares of common stock issued to the Erasca Foundation on June , 2021.

To the extent any outstanding options or other rights are exercised, or we issue additional equity or convertible securities in the future, there will be further dilution to new investors.

# Selected consolidated financial data

The following tables set forth our selected historical consolidated financial data as of, and for the periods ended on, the dates indicated. We have derived the selected consolidated statements of operations data for the years ended December 31, 2019 and 2020 and the selected consolidated balance sheet data as of December 31, 2019 and 2020 from our audited consolidated financial statements included elsewhere in this prospectus. We have derived the selected consolidated statements of operations data for the three months ended March 31, 2020 and 2021 and the selected consolidated balance sheet data as of March 31, 2021 from our unaudited consolidated financial statements included elsewhere in this prospectus. Our unaudited consolidated financial statements have been prepared on a basis consistent with our audited consolidated financial statements included elsewhere in this prospectus and, in the opinion of management, reflect all adjustments, consisting only of normal recurring adjustments, necessary to fairly state our results of operations for the three months ended March 31, 2020 and 2021 and our financial position as of March 31, 2021. You should read these data together with our consolidated financial statements and related notes included elsewhere in this prospectus and the section titled "Management's discussion and analysis of financial condition and results of operations." Our historical results for any prior period are not necessarily indicative of our future results, and our results for any interim period are not necessarily indicative of results that should be expected for any full year.

| | Year ended December 31, | | Three months ended March 31, | |
|---|---|---|---|---|
| **(in thousands, except share and per share data)** | **2019** | **2020** | **2020** | **2021** |
| | | | **(unaudited)** | |
| **Statements of operations data:** | | | | |
| Operating expenses: | | | | |
| Research and development | $ 9,618 | $ 29,550 | $ 4,554 | $ 12,245 |
| In-process research and development | — | 71,745 | 17,670 | 3,680 |
| General and administrative | 3,676 | 7,957 | 1,611 | 3,682 |
| Total operating expenses | 13,294 | 109,252 | 23,835 | 19,607 |
| Loss from operations | (13,294) | (109,252) | (23,835) | (19,607) |
| Other income (expense), net: | | | | |
| Interest income | 1,303 | 336 | 185 | 30 |
| Other expense | (49) | (102) | (8) | (55) |
| Change in fair value of preferred stock purchase right liability | — | 7,358 | — | 1,615 |
| Total other income (expense), net | 1,254 | 7,592 | 177 | 1,590 |
| Net loss | $ (12,040) | $ (101,660) | $ (23,658) | $ (18,017) |
| Net loss per share, basic and diluted[1] | $ (0.51) | $ (4.03) | $ (0.96) | $ (0.68) |
| Weighted-average shares of common stock outstanding, basic and diluted[1] | 23,795,645 | 25,247,998 | 24,760,841 | 26,684,702 |
| Pro forma net loss per share, basic and diluted (unaudited)[2] | | $ (1.32) | | $ (0.18) |
| Pro forma weighted-average shares of common stock outstanding, basic and diluted (unaudited)[2] | | 82,292,627 | | 108,837,782 |

(1) See Note 2 to our consolidated financial statements included elsewhere in this prospectus for an explanation of the method used to calculate historical net loss per share, basic and diluted, and the weighted-average number of shares of common stock used in the computation of the per share amounts.

(2) Unaudited pro forma net loss per share, basic and diluted, attributable to common stockholders, is calculated giving effect to the conversion of the convertible preferred stock into shares of common stock. Unaudited pro forma net loss per share attributable to common stockholders does not include the shares expected to be sold and related proceeds to be received in this offering. Unaudited pro forma net loss per share attributable to common stockholders for the year ended December 31, 2020 and the three months ended March 31, 2021 was calculated using the weighted-average number of shares of common stock outstanding, including the pro forma effect of the conversion of all outstanding shares of our convertible preferred stock into shares of our common stock, as if such conversion had occurred at the beginning of the period, or their issuance dates, if later, and an adjustment to the net loss in the pro forma basic and diluted net loss per share calculation to remove gains from the remeasurement of the preferred stock purchase right liability.

| (in thousands) | As of December 31, 2019 | As of December 31, 2020 | As of March 31, 2021 (unaudited) |
|---|---|---|---|
| **Balance Sheet Data:** | | | |
| Cash, cash equivalents and investments | $ 50,369 | $ 118,701 | $ 217,340 |
| Working capital[1] | 48,371 | 106,310 | 203,130 |
| Total assets | 55,512 | 124,825 | 224,628 |
| Convertible preferred stock | 63,403 | 221,405 | 340,798 |
| Accumulated deficit | (13,742) | (115,402) | (133,419) |
| Total stockholders' deficit | (13,604) | (113,984) | (129,259) |

(1) We define working capital as current assets less current liabilities. See our consolidated financial statements included elsewhere in this prospectus for further details regarding our current assets and current liabilities.

# Management's discussion and analysis of financial condition and results of operations

*You should read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and related notes included elsewhere in this prospectus. Some of the information contained in this discussion and analysis are set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing, and includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the section titled "Risk factors," our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis. See also the section titled "Special note regarding forward-looking statements."*

## Overview

We are a clinical-stage precision oncology company singularly focused on discovering, developing, and commercializing therapies for patients with RAS/MAPK pathway-driven cancers. Molecular alterations in RAS, the most frequently mutated oncogene, and the MAPK pathway, one of the most frequently altered signaling pathways in cancer, account for approximately 5.5 million new cases of cancer worldwide per year. Our company was co-founded by leading pioneers in precision oncology and RAS targeting to create novel therapies and combination regimens designed to comprehensively shut down the RAS/MAPK pathway for the treatment of cancer. We have assembled what we believe to be the deepest, wholly-owned or controlled RAS/MAPK pathway-focused pipeline in the industry, comprising 11 modality-agnostic programs aligned with our three therapeutic strategies of: (1) targeting key upstream and downstream signaling nodes in the RAS/MAPK pathway; (2) targeting RAS directly; and (3) targeting escape routes that emerge in response to treatment. The target breadth and molecular diversity represented in our pipeline enable us to pursue a systematic, data-driven clinical development effort to identify single agent and combination approaches with the goal of prolonging survival in a wide range of patient populations with high unmet needs.

Our modality-agnostic approach aims to allow us to selectively and potently inhibit or degrade critical signaling nodes with small molecule therapeutics, large molecule therapeutics, and protein degraders. Our purpose-built pipeline includes two clinical-stage programs (ERK and SHP2 inhibitors, which together comprise our first, innovative MAPKlamp), two preclinical-stage programs (CNS-penetrant KRAS G12C and EGFR inhibitors), and seven discovery-stage programs targeting other key oncogenic drivers. We expect to have four product candidates in the clinic within the next six quarters, plus an additional IND filing every 12-18 months over the next five years. We believe our world-class team's capabilities and experience, further guided by our scientific advisory board, which includes the world's leading experts in the RAS/MAPK pathway, uniquely position us to achieve our bold mission of erasing cancer.

We do not own or operate, and currently have no plans to establish, any manufacturing facilities. We rely, and expect to continue to rely, on third parties for the manufacture of our product candidates for preclinical and clinical testing, as well as for commercial manufacture if any of our product candidates obtain marketing approval. We are working with our current manufacturers to ensure that we will be able to scale up our manufacturing capabilities to support our clinical plans. We are also in the process of locating and qualifying additional manufacturers to build redundancies into our supply chain. In addition, we rely on third parties to package, label, store, and distribute our product candidates, and we intend to rely on third parties for our commercial products if marketing approval is obtained. We believe that this strategy allows us to maintain a more efficient infrastructure by eliminating the need for us to invest in our own manufacturing facilities, equipment, and personnel while also enabling us to focus our expertise and resources on the design and development of our product candidates.

Since our inception in 2018, we have devoted substantially all of our resources to organizing and staffing our company, business planning, raising capital, identifying, acquiring, and in-licensing our product candidates, establishing our intellectual property portfolio, conducting research, preclinical studies and clinical trials, establishing arrangements with third parties for the manufacture of our product candidates and related raw materials, and providing general and administrative support for these operations. We do not have any products approved for sale and have not generated any revenue. As of March 31, 2021, we have raised a total of $320.4 million to fund our operations, comprised primarily of gross proceeds from the sale and issuance of convertible preferred stock. As of December 31, 2020 and March 31, 2021, we had cash, cash equivalents and investments of $118.7 million, and $217.3 million which included net proceeds of $119.4 million received in January 2021 from the sale of shares of our Series B-2 convertible preferred stock, respectively.

We have incurred significant operating losses since inception. Our net losses were $12.0 million and $101.7 million for the years ended December 31, 2019 and 2020, respectively, and $23.7 million and $18.0 million for the three months ended March 31, 2020 and 2021, respectively. As of December 31, 2020 and March 31, 2021, we had an accumulated deficit of $115.4 million and $133.4 million, respectively. We expect our expenses and operating losses will increase substantially for the foreseeable future, particularly if and as we conduct our ongoing and planned clinical trials and preclinical studies; continue our research and development activities; utilize third parties to manufacture our product candidates and related raw materials; hire additional personnel; acquire, in-license, or develop additional product candidates; expand and protect our intellectual property; and incur additional costs associated with being a public company. If we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing, and distribution. In addition, as our product candidates progress through development and toward commercialization, we will need to make milestone payments to the licensors and other third parties from whom we have in-licensed or acquired our product candidates. Our net losses may fluctuate significantly from quarter-to-quarter and year-to-year, depending on the timing of our clinical trials and preclinical studies and our expenditures on other research and development activities.

Based upon our current operating plans, we believe that the estimated net proceeds from this offering, together with our existing cash, cash equivalents and investments, will be sufficient to fund our operations for at least the next  months from the date of this prospectus. We do not expect to generate any revenues from product sales until we successfully complete development and obtain regulatory approval for one or more of our product candidates, which we expect will take a number of years and may never occur. Accordingly, until such time as we can generate significant revenue from sales of our product candidates, if ever, we expect to finance our cash needs through equity offerings, debt financings or other capital sources, including potential collaborations, licenses, and other similar arrangements. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. Our failure to raise capital or enter into such other arrangements when needed would have a negative impact on our financial condition and could force us to delay, limit, reduce, or terminate our research and development programs or other operations, or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

The COVID-19 worldwide pandemic has presented substantial public health and economic challenges and is affecting our employees, patients, physicians and other healthcare providers, communities and business operations, as well as the US and global economies and financial markets. To date, we have not experienced material disruptions in our business operations. However, while it is not possible at this time to estimate the impact that COVID-19 could have on our business in the future, particularly as we advance our product candidates through clinical development, the continued spread of COVID-19 and the measures taken by the governmental authorities, and any future epidemic disease outbreaks, could: disrupt the supply chain and the manufacture or shipment of drug substances and finished drug products for our product candidates for use in

our research, preclinical studies and clinical trials; delay, limit or prevent our employees and CROs from continuing research and development activities; impede our clinical trial initiation and recruitment and the ability of patients to continue in clinical trials, including the risk that participants enrolled in our clinical trials will contract COVID-19 or other epidemic disease while the clinical trial is ongoing, which could impact the results of the clinical trial, including by increasing the number of observed adverse events; impede testing, monitoring, data collection and analysis and other related activities; any of which could delay our preclinical studies and clinical trials and increase our development costs, and have a material adverse effect on our business, financial condition and results of operations. The extent to which the COVID-19 pandemic impacts our results will depend on future developments that are highly uncertain and cannot be predicted, including new information that may emerge concerning the severity of the virus and the actions to contain its impact.

## Our acquisition and license agreements

In November 2020, we entered into an Agreement and Plan of Merger and an Amended and Restated License Agreement (the Asana Agreements), pursuant to which we acquired an exclusive, worldwide license to certain intellectual property rights relating to inhibitors of ERK1 and ERK2 owned or controlled by Asana BioSciences, LLC (Asana) to develop and commercialize ERAS-007 and certain other related compounds for all applications.

Under the Asana Agreements, we made an upfront payment of $20 million and issued 4,000,000 shares of our Series B-2 convertible preferred stock at a price of $7.50 per share to Asana. We are obligated to make future milestone payments of up to $90 million upon the achievement of various development and regulatory milestones and to issue 4,666,667 shares of common stock upon the achievement of a development milestone. We are not obligated to pay royalties on the net sales of ERAS-007.

We have entered into additional in-license and acquisition agreements pursuant to which we in-licensed or acquired certain intellectual property rights related to our product candidates and development programs, including license agreements with NiKang Therapeutics, Inc. (NiKang) and Katmai Pharmaceuticals, Inc. (Katmai) under which we were granted certain intellectual property rights related to ERAS-601 and ERAS-801, respectively, and an asset purchase agreement with Emerge Life Sciences, Pte. Ltd. (ELS) under which we acquired certain intellectual property rights related to ERAS-12.

For additional information regarding the Asana Agreements as well as these additional agreements, see the section titled “Business—Our acquisition and license agreements.”

## Components of results of operations

***Revenue***

We do not expect to generate any revenue from the sale of products unless and until such time that our product candidates have advanced through clinical development and regulatory approval, if ever. If we fail to complete preclinical and clinical development of product candidates or obtain regulatory approval for them, our ability to generate future revenues, and our results of operations and financial position would be adversely affected.

***Operating expenses***

*Research and development*

Research and development expenses consist of external and internal costs associated with our research and development activities, including our discovery and research efforts and the preclinical and clinical

development of our product candidates. Research and development costs are expensed as incurred. Our research and development expenses include:

- external costs, including expenses incurred under arrangements with third parties, such as CROs, contract manufacturers, consultants and our scientific advisors; and
- internal costs, including:
    - employee-related expenses, including salaries, benefits, and stock-based compensation for those individuals involved in research and development efforts;
    - the costs of laboratory supplies and acquiring, developing and manufacturing preclinical study materials; and
    - facilities and depreciation, which include direct and allocated expenses for rent of facilities and depreciation of equipment.

The following table summarizes our research and development expenses incurred for the following periods (in thousands):

| | Year ended December 31, | | Three months ended March 31, | |
|---|---|---|---|---|
| | 2019 | 2020 | 2020 | 2021 |
| | | | (unaudited) | |
| ERAS-007[1] | $ — | $ 17 | $ — | $ 2,344 |
| ERAS-601 | 258 | 9,876 | 718 | 3,152 |
| Other discovery and preclinical programs | 9,360 | 19,657 | 3,836 | 6,749 |
| Total research and development expenses | $ 9,618 | $ 29,550 | $ 4,554 | $ 12,245 |

(1) ERAS-007 was acquired in November 2020.

We expect our research and development expenses to increase substantially for the foreseeable future as we continue to conduct our ongoing research and development activities, conduct clinical trials and advance our preclinical research programs toward clinical development, particularly as more of our product candidates move into later stages of development which typically cost more. The process of conducting clinical trials and preclinical studies necessary to obtain regulatory approval is costly and time-consuming. We may never succeed in achieving marketing approval for any of our product candidates.

The timelines and costs with research and development activities are uncertain, can vary significantly for each product candidate and program and are difficult to predict. We anticipate we will make determinations as to which product candidates and programs to pursue and how much funding to direct to each product candidate and program on an ongoing basis in response to preclinical and clinical results, regulatory developments, ongoing assessments as to each product candidate's and program's commercial potential, and our ability to enter into collaborations, to the extent we determine the resources or expertise of a collaborator would be beneficial for a given product candidate or program. We will need to raise substantial additional capital in the future. In addition, we cannot forecast which product candidates and programs may be subject to future collaborations, when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements.

Our development costs may vary significantly based on factors such as:

- the number and scope of preclinical and IND-enabling studies and clinical trials;
- per patient trial costs;
- the number of trials required for approval;

- the number of sites included in the trials;
- the countries in which the trials are conducted;
- the length of time required to enroll eligible patients;
- the number of patients that participate in the trials;
- the number of doses that patients receive;
- the drop-out or discontinuation rates of patients;
- potential additional safety monitoring requested by regulatory agencies;
- the duration of patient participation in the trials and follow-up;
- the cost and timing of manufacturing our product candidates;
- the phase of development of our product candidates;
- the efficacy and safety profile of our product candidates;
- the timing, receipt and terms of any approvals from applicable regulatory authorities;
- maintaining a continued acceptable safety profile of our products candidates following approval, if any;
- significant and changing government regulation and regulatory guidance;
- the impact of any interruptions to our operations or to those of the third parties with whom we work due to the ongoing COVID-19 pandemic; and
- the extent to which we establish additional collaboration, license or other arrangements.

*In-process research and development*

In-process research and development expenses include rights acquired as part of asset acquisitions or in-licenses to develop and commercialize product candidates. Upfront payments that relate to the acquisition of a new drug compound, as well as pre-commercial milestone payments, are immediately expensed as in-process research and development in the period in which they are incurred, provided that the new drug compound did not also include processes or activities that would constitute a “business” as defined under US generally accepted accounting principles (US GAAP), the drug has not achieved regulatory approval for marketing and, absent obtaining such approval, has no established alternative future use.

In-process research and development expenses consist primarily of a $20.0 million upfront payment and issuance of 4,000,000 shares of our Series B-2 convertible preferred stock at a price of $7.50 per share to Asana, a $5.0 million upfront payment and $11.0 million in development milestones to NiKang, a $5.7 million upfront payment to Katmai, and a $2.0 million upfront payment and issuance of 600,000 shares of our common stock at a price of $2.80 per share to ELS.

*General and administrative*

General and administrative expenses consist primarily of employee-related expenses, including salaries, benefits and stock-based compensation, for employees in our finance, accounting, legal, information technology, business development and support functions. Other general and administrative expenses include

allocated facility and depreciation related costs not otherwise included in research and development expenses and professional fees for auditing, tax, intellectual property and legal services. Costs related to filing and pursuing patent applications are recognized as general and administrative expenses as incurred since recoverability of such expenditures is uncertain.

We expect our general and administrative expenses will increase substantially for the foreseeable future as we continue to increase our general and administrative headcount to support our continued research and development activities and, if any product candidates receive marketing approval, commercialization activities, as well as to support our operations generally. We also expect to incur increased costs associated with operating as a public company. These increased costs will likely include increased expenses related to audit, legal, regulatory and tax services associated with maintaining compliance with exchange listing and SEC requirements, director and officer insurance premiums and investor relations costs associated with operating as a public company.

***Other income (expense), net***

*Interest income*

Interest income consists primarily of interest earned on our cash, cash equivalents and investments.

*Change in fair value of preferred stock purchase right liability*

Our issuance of shares of our Series B-1 convertible preferred stock in April and August 2020 potentially obligated us to issue 13,175,191 shares of our Series B-2 convertible preferred stock at a price of $7.50 per share in an additional closing to certain purchasers of our Series B-1 convertible preferred stock, upon the achievement of certain milestones set forth in the Series B financing purchase agreement. We determined our obligation to issue these shares of Series B-2 convertible preferred stock represented a freestanding financial instrument that required liability accounting. This freestanding preferred stock purchase right liability for the Series B-2 convertible preferred stock was recorded at fair value upon issuance and was subsequently remeasured to fair value at each reporting date. Changes in the fair value of the preferred stock purchase right liability were recognized in the consolidated statements of operations and comprehensive loss until the obligation for the Series B-2 shares was fulfilled upon the Series B-2 issuance in January 2021.

## Results of operations

***Comparison of the three months ended March 31, 2020 and 2021***

The following table summarizes our results of operations for the three months ended March 31, 2020 and 2021 (in thousands):

| | Three months ended March 31, | | |
|---|---|---|---|
| | 2020 | 2021 | Change |
| | | (unaudited) | |
| Operating expenses: | | | |
| Research and development | $ 4,554 | $ 12,245 | $ 7,691 |
| In-process research and development | 17,670 | 3,680 | (13,990) |
| General and administrative | 1,611 | 3,682 | 2,071 |
| Total operating expenses | 23,835 | 19,607 | (4,228) |
| Loss from operations | (23,835) | (19,607) | 4,228 |
| Other income (expense), net | 177 | 1,590 | 1,413 |
| Net loss | $ (23,658) | $ (18,017) | $ 5,641 |

*Research and development expenses*

Research and development expenses were $4.6 million for the three months ended March 31, 2020 compared to $12.2 million for the three months ended March 31, 2021. The increase of $7.7 million was primarily driven by a $3.0 million increase in outsourced services and consulting, a $2.7 million increase in personnel costs due to increased headcount to support increased development activities, and a $1.8 million increase in expenses incurred in connection with clinical trials and preclinical studies.

*In-process research and development expenses*

In-process research and development expenses were $17.7 million for the three months ended March 31, 2020, compared to $3.7 million for the three months ended March 31, 2021. In-process research and development expenses for the three months ended March 31, 2020 related to a $5.0 million upfront payment and a $7.0 million milestone payment in connection with the in-license agreement with NiKang and a $5.7 million upfront payment in connection with the in-license agreement with Katmai. In-process research and development expenses for the three months ended March 31, 2021 related to a $2.0 million upfront payment and issuance of 600,000 shares of our common stock at a price of $2.80 per share or a total fair value of $1.7 million in connection with the ELS asset acquisition.

*General and administrative expenses*

General and administrative expenses were $1.6 million for the three months ended March 31, 2020 compared to $3.7 million for the three months ended March 31, 2021. The increase of $2.1 million was primarily driven by increases of $1.3 million in personnel costs and $0.3 million in legal costs.

*Other income (expense), net*

Other income (expense), net was $0.2 million for the three months ended March 31, 2020 compared to $1.6 million for the three months ended March 31, 2021. The increase of $1.4 million was primarily related to the change in fair value of the preferred stock purchase right liability of $1.6 million, partially offset by a decrease of $0.2 million related to interest and accretion income earned on our cash, cash equivalents and investments in 2021.

***Comparison of the years ended December 31, 2019 and 2020***

The following table summarizes our results of operations for the years ended December 31, 2019 and 2020 (in thousands):

| | Year ended December 31, | | |
|---|---|---|---|
| | **2019** | **2020** | **Change** |
| Operating expenses: | | | |
| Research and development | $ 9,618 | $ 29,550 | $ 19,932 |
| In-process research and development | — | 71,745 | 71,745 |
| General and administrative | 3,676 | 7,957 | 4,281 |
| Total operating expenses | 13,294 | 109,252 | 95,958 |
| Loss from operations | (13,294) | (109,252) | (95,958) |
| Other income (expense), net | 1,254 | 7,592 | 6,338 |
| Net loss | $(12,040) | $(101,660) | $(89,620) |

*Research and development expenses*

Research and development expenses were $9.6 million for the year ended December 31, 2019 compared to $29.6 million for the year ended December 31, 2020. The increase of $19.9 million was primarily driven by a $7.9 million increase in expenses incurred in connection with clinical trials and preclinical studies, a $7.2 million increase in outsourced services and consulting, and a $4.3 million increase in personnel costs due to increased headcount to support increased development activities.

*In-process research and development expenses*

In-process research and development expenses were $71.7 million for the year ended December 31, 2020, primarily related to the Asana asset acquisition and the in-license agreements with NiKang and Katmai. There were no in-process research and development expenses for the year ended December 31, 2019.

*General and administrative expenses*

General and administrative expenses were $3.7 million for the year ended December 31, 2019 compared to $8.0 million for the year ended December 31, 2020. The increase of $4.3 million in 2020 was primarily driven by increases of $3.0 million in personnel costs and $0.9 million in legal costs.

*Other income (expense), net*

Other income (expense), net was $1.3 million for the year ended December 31, 2019 compared to $7.6 million for the year ended December 31, 2020. The increase of $6.3 million was primarily related to the change in fair value of the preferred stock purchase right liability of $7.4 million, partially offset by a decrease of $1.0 million related to interest and accretion income earned on our cash, cash equivalents and short-term investments in 2020.

## Liquidity and capital resources

### *Sources of liquidity*

From our inception through March 31, 2021, we have received aggregate gross proceeds of $320.4 million from the sale of shares of our convertible preferred stock.

### *Future capital requirements*

As of December 31, 2020 and March 31, 2021, we had cash, cash equivalents and investments of $118.7 million, and $217.3 million which included net proceeds of $119.4 million received in January 2021 from the sale of shares of our Series B-2 convertible preferred stock, respectively. Based upon our current operating plans, we believe that the estimated net proceeds from this offering, together with our existing cash, cash equivalents and investments, will be sufficient to fund our operations for at least the next months from the date of this prospectus. However, our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties, and actual results could vary materially. We have based this estimate on assumptions that may prove to be wrong, and we could deplete our capital resources sooner than we expect. Additionally, the process of conducting preclinical studies and testing product candidates in clinical trials is costly, and the timing of progress and expenses in these studies and trials is uncertain.

Our future capital requirements are difficult to forecast and will depend on many factors, including but not limited to:

- the type, number, scope, progress, expansions, results, costs and timing of discovery, preclinical studies and clinical trials of our product candidates which we are pursuing or may choose to pursue in the future, including the costs of any third-party products used in our combination clinical trials that are not covered by such third party or other sources;
- the costs and timing of manufacturing for our product candidates, including commercial manufacturing if any product candidate is approved;
- the costs, timing and outcome of regulatory review of our product candidates;
- the costs of obtaining, maintaining and enforcing our patents and other intellectual property rights;
- our efforts to enhance operational systems and hire additional personnel to satisfy our obligations as a public company, including enhanced internal controls over financial reporting;
- the costs associated with hiring additional personnel and consultants as our preclinical and clinical activities increase;
- the timing and amount of the milestone or other payments we must make to the licensors and other third parties from whom we have in-licensed or acquired our product candidates or technologies;
- the costs and timing of establishing or securing sales and marketing capabilities if any product candidate is approved;
- our ability to achieve sufficient market acceptance, coverage and adequate reimbursement from third-party payors and adequate market share and revenue for any approved products;
- patients' willingness to pay out-of-pocket for any approved products in the absence of coverage and/or adequate reimbursement from third-party payors;

- any delays and cost increases that result from the COVID-19 pandemic;
- the terms and timing of establishing and maintaining collaborations, licenses and other similar arrangements; and
- costs associated with any products or technologies that we may in-license or acquire.

We have no other committed sources of capital. Until we can generate a sufficient amount of product revenue to finance our cash requirements, if ever, we expect to finance our future cash needs primarily through equity offerings, debt financings or other capital sources, including potential collaborations, licenses and other similar arrangements. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be or could be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through other collaborations or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our research and development programs or other operations, or grant rights to develop and market product candidates to third parties that we would otherwise prefer to develop and market ourselves.

***Cash flows***

The following table shows a summary of our cash flows for the periods presented (in thousands):

| | Year ended December 31, | | Three months ended March 31, | |
|---|---|---|---|---|
| | 2019 | 2020 | 2020 | 2021 |
| | | | (unaudited) | |
| Net cash (used in) provided by: | | | | |
| Operating activities | $ (10,378) | $ (32,686) | $ (5,610) | $ (15,666) |
| Investing activities | (20,887) | (71,202) | 992 | (162) |
| Financing activities | 16,865 | 139,993 | 490 | 120,537 |
| Net (decrease) increase in cash, cash equivalents and restricted cash | $ (14,400) | $ 36,105 | $ (4,128) | $ 104,709 |

*Operating activities*

Cash used in operating activities was $5.6 million during the three months ended March 31, 2020, primarily resulting from a net loss of $23.7 million, partially reduced by in-process research and development expenses of $17.7 million, which is reflected in noncash and investing activities, changes in operating assets and liabilities of $0.2 million, stock-based compensation of $0.1 million and depreciation expense of $0.1 million. Net cash provided by changes in operating assets and liabilities consisted primarily of increases in accrued expenses and other liabilities of $0.5 million, partially offset by a decrease in accounts payable of $0.3 million.

Cash used in operating activities was $15.7 million during the three months ended March 31, 2021, primarily resulting from a net loss of $18.0 million, partially reduced by in-process research and development expenses of $3.7 million, which is reflected in noncash and investing activities, stock-based compensation expense of $0.8 million and

depreciation expense of $0.1 million, partially offset by a $1.6 million change in fair value of the preferred stock purchase right liability and changes in operating assets and liabilities of $0.7 million. Net cash used in changes in operating assets and liabilities consisted primarily of an increase in prepaid expenses and other assets of $1.2 million, partially offset by increases in accrued expenses and other liabilities of $0.5 million.

Cash used in operating activities was $10.4 million during the year ended December 31, 2019, primarily resulting from a net loss of $12.0 million, partially reduced by changes in operating assets and liabilities of $1.7 million. Net cash provided by changes in operating assets and liabilities consisted primarily of increases in accounts payable, accrued expenses and other liabilities of $1.8 million, partially offset by a $0.1 million increase in prepaid expenses and other assets.

Cash used in operating activities was $32.7 million during the year ended December 31, 2020, primarily resulting from a net loss of $101.7 million, partially reduced by in-process research and development expenses of $71.7 million, which is reflected in noncash and investing activities, changes in operating assets and liabilities of $3.3 million, stock-based compensation expense of $0.8 million and depreciation expense of $0.5 million, partially offset by a $7.4 million change in fair value of the preferred stock purchase right liability. Net cash provided by changes in operating assets and liabilities consisted primarily of increases in accrued expenses and other liabilities of $4.6 million, partially offset by an increase in prepaid expenses and other assets of $0.9 million and a decrease in accounts payable of $0.4 million.

*Investing activities*

Net cash provided by investing activities was $1.0 million during the three months ended March 31, 2020 as compared to cash used in investing activities of $0.2 million during the three months ended March 31, 2021. The increase in cash used in investing activities of $1.2 million was primarily the result of additional purchases of $22.0 million of investments, partially offset by an increase of $20.4 million in maturities of investments and a $0.4 million decrease in purchases of property and equipment.

Net cash used in investing activities was $20.9 million during the year ended December 31, 2019 as compared to $71.2 million during the year ended December 31, 2020. The increase of $50.3 million was primarily the result of additional purchases of $40.3 million of short-term investments, the upfront payment of $20.0 million in connection with the Asana asset acquisition, the upfront and milestone payments of $12.0 million in connection with the in-licensing deal with NiKang, the upfront payment of $5.7 million in connection with the in-licensing deal with Katmai and the additional purchases of $0.4 million of property and equipment, partially offset by an increase of $28.1 million in maturities of short-term investments.

*Financing activities*

Net cash provided by financing activities was $0.5 million during the three months ended March 31, 2020 as compared to $120.5 million during the three months ended March 31, 2021. During the three months ended March 31, 2020, we received $0.5 million from the exercise of stock options. During the three months ended March 31, 2021, we received $119.4 million from the sale of shares of our Series B-2 convertible preferred stock, net of issuance costs, and $1.1 million from the exercise of stock options.

Net cash provided by financing activities was $16.9 million during the year ended December 31, 2019 as compared to $140.0 million during the year ended December 31, 2020. During 2019, we received $16.9 million from the sale of shares of our Series A convertible preferred stock, net of issuance costs. During 2020, we received $137.0 million from the sale of shares of our Series B-1 convertible preferred stock, net of issuance costs, and $3.0 million from the exercise of stock options, net of repurchases.

## Contractual obligations and commitments

The following table summarizes our contractual obligations and commitments at December 31, 2020 (in thousands):

| | Payments due by period | | | | |
|---|---|---|---|---|---|
| | Total | Less than 1 year | 1-3 years | 3-5 years | More than 5 years |
| Operating lease obligations[1] | $42,855 | $ 1,073 | $ 5,752 | $ 8,442 | $ 27,588 |
| Total | $42,855 | $ 1,073 | $ 5,752 | $ 8,442 | $ 27,588 |

(1) Represents monthly payments under our operating lease obligations which relate to our corporate headquarters in San Diego, California, and an equipment lease. We lease approximately 16,153 square feet of office and laboratory space under an operating lease that expires in May 2024. Additionally, in September 2020, we entered into a lease agreement for approximately 59,407 square feet of office and laboratory space which has a target commencement date of August 2021 (the 2020 Lease). Monthly rent payments begin in January 2023 for nine years related to this lease.

In March 2021, we entered into the first amendment to the 2020 Lease to expand the rented premises by 18,421 square feet for additional consideration of $96,000 per month with payments beginning in January 2023.

We enter into contracts in the normal course of business for contract research services, contract manufacturing services, professional services and other services and products for operating purposes. These contracts generally provide for termination after a notice period, and, therefore, are cancelable contracts and not included in the table above.

The table above does not include any additional potential development and sales milestone payments and royalty payments we may be required to make under license and acquisition agreements we have entered into pursuant to which we have in-licensed and acquired certain intellectual property. See the section titled “Business—Our acquisition and license agreements” for additional information. The timing of when these additional payments will actually be made is uncertain as the payments are contingent upon the completion of future activities.

## Off-balance sheet arrangements

We did not have during any of the periods presented, and do not currently have, any off-balance sheet arrangements as defined under rules and regulations of the SEC.

## Critical accounting policies and estimates

This management discussion and analysis of financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with US GAAP. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses. On an ongoing basis, we evaluate these estimates and judgments. We base our estimates on historical experience and on various assumptions that we believe to be reasonable under the circumstances. These estimates and assumptions form the basis for making judgments about the carrying values of assets and liabilities and the recording of revenue and expenses that are not readily apparent from other sources. Actual results may differ materially from these estimates.

While our significant accounting policies are described in more detail in Note 2 to our consolidated financial statements included elsewhere in this prospectus, we believe that the following accounting policies are the most critical to understanding and evaluating our historical and future performance.

***Accrued research and development expenses***

We are required to make estimates of our accrued expenses resulting from our obligations under contracts with CROs, manufacturers, vendors and consultants, in connection with conducting research and development activities. The financial terms of these contracts vary from contract to contract and may result in payment flows that do not match the periods over which materials or services are provided under such contracts. We reflect research and development expenses in our consolidated financial statements by matching those expenses with the period in which services and efforts are expended.

We account for these expenses by reviewing open contracts and purchase orders, communicating with our personnel to identify services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost. We make estimates of our accrued expenses as of each balance sheet date based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. The significant estimates in our accrued research and development expenses include the costs incurred for services performed by our vendors in connection with research and development activities for which we have not yet been invoiced.

We base our expenses related to research and development activities on our estimates of the services received and efforts expended pursuant to quotes and contracts with vendors that conduct research and development on our behalf. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the research and development expense. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual or prepaid expense accordingly. Advance payments for goods and services that will be used in future research and development activities are expensed when the activity has been performed or when the goods have been received rather than when the payment is made.

Although we do not expect our estimates to be materially different from amounts actually incurred, if our estimates of the status and timing of services performed differ from the actual status and timing of services performed, it could result in us reporting amounts that are too high or too low in any particular period. To date, there have been no material differences between our estimates of such expenses and the amounts actually incurred.

***Stock-based compensation***

Stock-based compensation expense represents the cost of the grant date fair value of equity awards recognized over the requisite service period of the awards (usually the vesting period) on a straight-line basis. We estimate the fair value of stock option awards using the Black-Scholes option pricing model and recognize forfeitures as they occur.

The Black-Scholes option pricing model requires the use of subjective assumptions, including the risk-free interest rate, the expected stock price volatility, the expected term of stock options, the expected dividend yield and the fair value of the underlying common stock on the date of grant. Changes in these assumptions can materially affect the fair value and ultimately how much stock-based compensation expense is recognized. These inputs are subjective and generally require judgment to develop. See Note 10 to our consolidated financial statements included elsewhere in this prospectus for information concerning certain of the specific assumptions we used in applying the Black-Scholes option pricing model to determine the estimated fair value of our stock options granted in the years ended December 31, 2019 and 2020 and the three months ended March 31, 2020 and 2021.

Stock-based compensation totaled approximately $0.1 million and $0.8 million for the years ended December 31, 2019 and 2020 and $0.1 million and $0.8 million for the three months ended March 31, 2020 and 2021, respectively. As of December 31, 2020, the unrecognized stock-based compensation expense related to stock options was $5.2 million, which is expected to be recognized as expense over a weighted-average period of approximately 3.56 years. As of March 31, 2021, the unrecognized stock-based compensation expense related to stock options was $13.9 million, which is expected to be recognized as expense over a weighted-average period of approximately 3.66 years.

The intrinsic value of all outstanding stock options as of , 2021 was approximately $ million, based on the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), of which approximately $ million related to vested options and approximately $ million related to unvested options.

***Common stock valuations***

Historically for all periods prior to this offering, since there has been no public market for our common stock, we have been required to estimate the fair value of the common stock underlying our equity awards when performing fair value calculations. The fair value of the common stock underlying our equity awards was determined on each grant date by our board of directors, taking into account input from management and independent third-party valuation analyses. All options to purchase shares of our common stock are intended to be granted with an exercise price per share no less than the fair value per share of our common stock underlying those options on the date of grant, based on the information known to us on the date of grant. In the absence of a public trading market for our common stock, on each grant date we develop an estimate of the fair value of our common stock in order to determine an exercise price for the option grants. Our determinations of the fair value of our common stock were made using methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Accounting and Valuation Guide: *Valuation of Privately Held Company Equity Securities Issued as Compensation* (the Practice Aid).

Our board of directors considered various objective and subjective factors, along with input from management, to determine the fair value of our common stock, including:

- valuations of our common stock performed with the assistance of independent third-party valuation specialists;
- our stage of development and business strategy, including the status of research and development efforts of our product candidates, and the material risks related to our business and industry;
- our business conditions and projections;
- our results of operations and financial position, including our levels of available capital resources;
- the valuation of publicly traded companies in the life sciences and biotechnology sectors, as well as recently completed mergers and acquisitions of peer companies;
- the lack of marketability of our common stock as a private company;
- the prices of our convertible preferred stock sold to investors in arm’s length transactions and the rights, preferences and privileges of our convertible preferred stock relative to those of our common stock;
- the likelihood of achieving a liquidity event for the holders of our common stock, such as an initial public offering or a sale of our company, given prevailing market conditions;

- trends and developments in our industry;
- the hiring of key personnel and the experience of management; and
- external market conditions affecting the life sciences and biotechnology industry sectors.

The Practice Aid prescribes several valuation approaches for setting the value of an enterprise, such as the cost, income and market approaches, and various methodologies for allocating the value of an enterprise to its common stock. The cost approach establishes the value of an enterprise based on the cost of reproducing or replacing the property less depreciation and functional or economic obsolescence, if present. The income approach establishes the value of an enterprise based on the present value of future cash flows that are reasonably reflective of our future operations, discounting to the present value with an appropriate risk adjusted discount rate or capitalization rate. The market approach is based on the assumption that the value of an asset is equal to the value of a substitute asset with the same characteristics. Each valuation methodology was considered in our valuations.

In determining a fair value for our common stock, we estimated the enterprise value of our business using either the market approach or the back-solve method. The back-solve method assigns an implied enterprise value based on the most recent round of funding or investment and allows for the incorporation of the implied future benefits and risks of the investment decision assigned by an outside investor. In accordance with the Practice Aid, we considered the various methods for allocating the enterprise value across our classes and series of capital stock to determine the fair value of our common stock at each valuation date.

We only granted restricted stock awards prior to January 2019. For options granted in 2019, we concluded that the Option Pricing Method (OPM) was the most appropriate approach for allocating the enterprise value based on our stage of development and other relevant factors. Under the OPM, shares are valued by creating a series of call options with exercise prices based on the liquidation preferences and conversion terms of each equity class. The values of the preferred and common stock are inferred by analyzing these options.

For options granted from January 2020 to October 2020, we concluded that a hybrid method computing the probability-weighted value across varying scenarios between OPM, Current Value Method (CVM) and Initial Public Offering (IPO) was the most appropriate for the valuation of our common stock based on our stage of development and other relevant factors. Under the CVM, the enterprise value is calculated based on an assumed forced asset sale at a future date and the corresponding allocation of proceeds based on the rights and preferences of each class of equity. The IPO scenario reflects an exit or liquidity event by means of a sale of stock by the Company to the public.

For options granted after October 2020, we concluded that a hybrid method of the OPM and IPO scenarios was the most appropriate for the valuation of our common stock based on our stage of development and other relevant factors. The valuations assigned a relative weighting to each of the scenarios, based on the likelihood that we would be able to successfully advance our development programs to the next development stage with our current capital resources and the likelihood of an IPO.

There are significant judgments and estimates inherent in the determination of the fair value of our common stock. These judgments and estimates include assumptions regarding our future operating performance, the time to complete an initial public offering or other liquidity event and the determination of the appropriate valuation methods. If we had made different assumptions, our stock-based compensation expense, net loss and net loss per common share could have been significantly different.

Following the completion of this offering, the fair value of our common stock will be based on the closing price as reported on the date of grant on the primary stock exchange on which our common stock is traded.

***Net operating loss and research and development carryforwards and other income tax information***

As of December 31, 2020, we had federal, California and other state NOL carryforwards of $49.1 million, $13.0 million and $2.4 million, respectively. The federal NOL carryforwards will carryforward indefinitely and can offset up to 80% of future taxable income in each year. The state NOL carryforwards will begin to expire in 2038, unless previously utilized.

As of December 31, 2020, we also had federal and state research credit carryforwards of $0.3 million and $0.7 million, respectively. The federal research and development tax credit carryforwards expire beginning in 2038 unless previously utilized, and the state research and development tax credit carryforwards do not expire and can be carried forward indefinitely until utilized. We have not completed a Section 382 study to assess whether an ownership change has occurred or whether there have been multiple ownership changes since our formation due to the complexity and cost associated with such a study and the fact that there may be additional such ownership changes in the future. Pursuant to Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, annual use of our NOL and research and development tax credit carryforwards may be limited in the event a cumulative change in ownership of more than 50% occurs within a three-year period.

***Recently adopted accounting pronouncements***

See Note 2 to our consolidated financial statements included elsewhere in this prospectus for recently adopted accounting pronouncements.

## Quantitative and qualitative disclosures about market risk

***Interest rate risk***

We are exposed to market risk related to changes in interest rates of our investment portfolio of cash equivalents, short-term investments and long-term investments. As of March 31, 2021, our cash equivalents, short-term investments and long-term investments consisted of money market funds, US treasury and government securities, corporate debt securities, commercial paper and supranational debt securities. As of December 31, 2019 and 2020, our cash equivalents and short-term investments consisted of money market funds, commercial paper, corporate debt securities, and US Treasury securities. Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of US interest rates. The fair value of our marketable securities is subject to change as a result of potential changes in market interest rates, including changes resulting from the impact of the COVID-19 pandemic. Due to the nature of our cash equivalents and investments, we believe an immediate hypothetical 10% change in interest rates would not have had a material effect on our results of operations during the periods presented.

***Foreign currency exchange risk***

We are exposed to market risk related to changes in foreign currency exchange rates. We contract with vendors that are located outside the United States and certain invoices are denominated in foreign currencies. We are subject to fluctuations in foreign currency rates in connection with these arrangements. To date, these fluctuations have not been significant and we have not had a formal hedging program with respect to foreign currency. We believe an immediate hypothetical 10% change in exchange rates would not have had a material effect on our results of operations during the periods presented.

***Effects of inflation***

Inflation generally affects us by increasing our cost of labor and research and development contract costs. We believe inflation has not had a material effect on our results of operations during the periods presented.

## Emerging growth company and smaller reporting company status

As an emerging growth company under the JOBS Act, we can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to avail ourselves of this exemption from new or revised accounting standards and, therefore, our consolidated financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates. We also intend to rely on other exemptions provided by the JOBS Act, including without limitation, not being required to comply with the auditor attestation requirements of Section 404(b) of Sarbanes-Oxley.

We will remain an emerging growth company until the earliest of (i) the last day of the fiscal year following the fifth anniversary of the consummation of this offering; (ii) the last day of the fiscal year in which we have total annual gross revenue of at least $1.07 billion; (iii) the last day of the fiscal year in which we are deemed to be a “large accelerated filer” as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such year; or (iv) the date on which we have issued more than $1.0 billion in nonconvertible debt securities during the prior three-year period.

We are also a smaller reporting company as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than $250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than $100.0 million during the most recently completed fiscal year and our voting and non voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

# Founder's letter

*To Erase cancer:*
*Our mission fuels our journey*
*To bring patients hope.*

At Erasca, our name *is* our mission: to erase cancer. It begins with our passion and compassion for patients with cancer and their loved ones who motivate us to do our best work. It extends to our social mission that calls us to do more with the resources we've been blessed with to be a beacon of hope.

We are forging our own path while also standing on the shoulders of giants, drawing best practices from others within our industry and even beyond. We craft novel therapies for patients with cancer. We wield cutting-edge development strategies forged by precision oncology. We recruit top talent and foster an inclusive, innovative culture to drive talent density and engagement. We set bold, dynamic goals.

We also draw inspiration from nature itself. In 1960, a mathematician-turned-meteorologist at MIT named Edward Lorenz built a computer model to predict the weather. As is often the case with "eureka" moments in science, Lorenz was surprised to find two weather patterns originating from nearly the exact same starting point later diverged into seemingly random chaos. He concluded that infinitesimally small differences in initial conditions could lead to vastly variable outcomes—a phenomenon he referred to as "sensitive dependence on initial conditions" that planted the seed for a new science.[1]

## Initial conditions

The earliest seed for our company was planted on February 6, 2018. During my downtime that evening while on a business trip in London, I read about a novel strategy to drug the active state of RAS, the most frequently mutated oncogene in human cancer, based on the work of Dr. Kevan Shokat, a world-renowned biochemist who in 2013 had discovered an innovative approach to drug the inactive state of RAS. I recognized the potentially far-reaching implications of this new approach and couldn't wait to turn this idea into reality through a new start-up. The name "Erasca" came to mind immediately: Its mission would be to Eradicate RAS-driven CAncer and to ERASe CAncer more broadly. Erasca's name is a portmanteau that incorporates these dual meanings. That night, I registered the erasca.com URL from my hotel room.

The day after I left Roche/Genentech, Kevan and I co-founded Erasca on July 2, 2018 around this disruptive idea to target the active state of RAS. We commenced operations in October 2018, launching with a dedicated team of a dozen alumni from Ignyta, Genentech, and Wellspring. Each "Erascal," as we call ourselves, brought a distinct spike of expertise to the company—and this has been the case with every new Erascal who has joined us since.

Lorenz's phenomenon is also known as the "butterfly effect," a more familiar concept which captures the idea that a small change can have much larger downstream consequences—like how the metaphorical flutter of a butterfly's wings can become amplified into a raging storm on the other side of the world. With our initial conditions set, our hope is that a single idea—like the one that emerged that evening in London—can initiate a cascade of advances that can become amplified into saving millions of people from cancer in the future.

[1] Lorenz EN, Deterministic Nonperiodic Flow, *Journal of the Atmospheric Sciences,* Vol 20, pages 130–141, March 1, 1963.

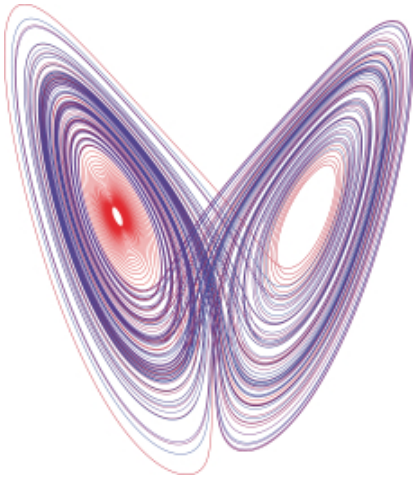
## The butterfly effect

Erasca embarked on a journey to create new product candidates based on differentiated approaches to shut down RAS-driven cancers. We realized early on that RAS is a wily target that may evade direct inhibition via multiple mechanisms—both in-pathway and beyond. To combat this, we built a pipeline of our own research programs complemented by a parallel corporate development strategy to in-license or acquire assets with the goal of comprehensively shutting down the RAS/MAPK pathway with single agents and rational combinations.

Our efforts are rooted in a deep understanding of the biology of the RAS/MAPK pathway and are focused on finding the right molecules in a modality-agnostic manner rather than relying on a single, platform-specific approach. Since commencing operations, we have advanced six internal discovery programs and entered into five acquisition and licensing agreements between February 2020 and March 2021 to assemble our current modality-agnostic pipeline of 11 distinct programs singularly focused on silencing this signaling cascade. Our broad pipeline allows us to target not just individual signaling nodes in the RAS/MAPK pathway, but multiple nodes and cooperative mechanisms in concert.

I never imagined that this pipeline could have emerged from a single idea seeded on February 6, 2018. But with the thoughtful addition of each new Erascal, each new advisor, each new collaborator, and each new program initiated or licensed that collectively made the whole much greater than the sum of its parts—along with a robust ecosystem of fellow sojourners publishing each new paper or reporting promising new data—a novel pattern was beginning to form. One can only wonder at the kinds of downstream effects a pipeline of this breadth could have on the lives of patients suffering from cancer.

Embedded in his weather model, where others saw only chaos, Lorenz saw order masquerading as randomness. By using math to describe the non-linear phenomena he observed in nature, he was able to create pictures from the data. The pictures that emerged were beautiful patterns—each a unique, wondrous trajectory in its own right, based on changing the inputs of the initial conditions. Each picture, called a “Lorenz attractor,” displayed infinite complexity. It always stayed within certain invisible boundaries, but never repeated itself. The pattern that forms is a wondrous, almost magical shape—like a butterfly emerging from its chrysalis after a period of formation—or like a new company emerging with a clear mission to make a difference in the treatment of cancer.



*The **Lorenz attractor,** first derived from a simple weather model, has become a classic icon of nonlinear dynamics that symbolizes order within chaos (Credit: Dschwen. Licensed under Creative Commons Attribution 2.5 Generic license [https://creativecommons.org/licenses/by/2.5/legalcode]. All other material in this prospectus not contributed by Dschwen).*

## A wondrous trajectory

Our vision is to one day erase cancer[2] in at least 100,000 patients annually as a leading global oncology company. We aim to fulfill this by targeting RAS, the most frequently mutated oncogene in human cancer, and the MAPK pathway, one of the most frequently altered signaling pathways in cancer. Approximately 5.5 million patients worldwide per year are diagnosed with RAS/MAPK pathway alterations that drive the growth and proliferation of their cancer. By shutting down the RAS/MAPK pathway with combinations of medicines within Erasca's pipeline as well as with partners' agents, we hope to markedly improve patients' lives and move closer to achieving Erasca's bold mission and vision.

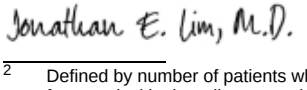
The path to achieving our mission to erase cancer is anything but linear. The journey will be long, and it won't be easy. Despite the challenges that lie ahead, we have a sense of urgency because patients with cancer are waiting. Since our inception, we have expanded our pipeline within a rapid timeframe and are currently in a heady growth phase to continue advancing this pipeline. Conducting an IPO of consequence to raise the capital we need to advance our mission on behalf of patients is a watershed event in the life of our company. Reaching this milestone is a testament to the tremendous efforts of many who have supported Erasca, and we owe a debt of gratitude to patients with cancer and their families, our employees, our board of directors, our scientific and R&D advisory boards, our academic and industry collaborators, and our shareholders.

Beyond our immediate mission, we know we can do more to make an even broader contribution to society. Accordingly, we have established the Erasca Foundation, which will be funded by the donation of 1% of our capital stock prior to the closing of this offering. The foundation will support and fund cancer research, education, and other initiatives.

We hope that a bold new pattern will emerge from our commitment to patients and society, while keeping our promises to our stakeholders. The Lorenz attractor reveals fine structures hidden within disorderly streams of data. The result of its initial conditions is a system that never exactly repeats itself, travelling in a unique trajectory that never intersects itself. What we hope to create is a company that has never been seen before because there is no model to mimic for pioneers who seek to traverse uncharted paths.

It is Erasca. Uniquely beautiful and unprecedented. We hope you will join us on the wondrous journey ahead.

*Envision a day*
*When millions of people can*
*Wipe cancer away.*



[2] Defined by number of patients who are alive and free of cancer or free from cancer progression 2 years after starting treatment on an Erasca regimen, as measured by disease-free survival in the adjuvant setting and progression-free survival in the metastatic setting.

# Business

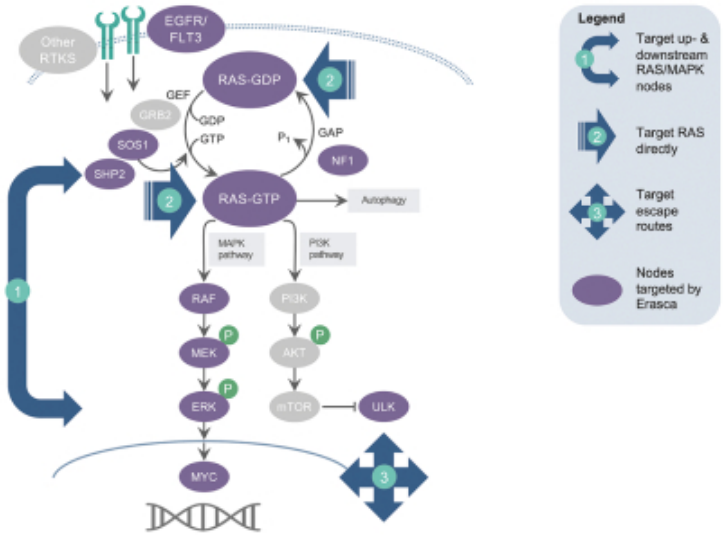
## Overview

At Erasca, our name is our mission: to erase cancer.

We are a clinical-stage precision oncology company singularly focused on discovering, developing, and commercializing therapies for patients with RAS/MAPK pathway-driven cancers. Molecular alterations in RAS, the most frequently mutated oncogene, and the MAPK pathway, one of the most frequently altered signaling pathways in cancer, account for approximately 5.5 million new cases of cancer worldwide per year. Our company was co-founded by leading pioneers in precision oncology and RAS targeting to create novel therapies and combination regimens designed to comprehensively shut down the RAS/MAPK pathway for the treatment of cancer. We have assembled what we believe to be the deepest, wholly-owned or controlled RAS/MAPK pathway-focused pipeline in the industry, comprising 11 modality-agnostic programs aligned with our three therapeutic strategies of: (1) targeting key upstream and downstream signaling nodes in the RAS/MAPK pathway; (2) targeting RAS directly; and (3) targeting escape routes that emerge in response to treatment. The target breadth and molecular diversity represented in our pipeline enable us to pursue a systematic, data-driven clinical development effort to identify single agent and combination approaches with the goal of prolonging survival in a wide range of patient populations with high unmet needs.

Our modality-agnostic approach aims to allow us to selectively and potently inhibit or degrade critical signaling nodes with small molecule therapeutics, large molecule therapeutics, and protein degraders. Our purpose-built pipeline includes two clinical-stage programs (ERK and SHP2 inhibitors, which together comprise our first, innovative MAPKlamp), two preclinical-stage programs (CNS-penetrant KRAS G12C and EGFR inhibitors), and seven discovery-stage programs targeting other key oncogenic drivers. We expect to have four product candidates in the clinic within the next six quarters, plus an additional IND filing every 12-18 months over the next five years. We believe our world-class team's capabilities and experience, further guided by our scientific advisory board, which includes the world's leading experts in the RAS/MAPK pathway, uniquely position us to achieve our bold mission of erasing cancer.

Of the approximately 5.5 million new patients diagnosed globally per year with cancers driven by RAS/MAPK pathway molecular alterations, over 90% have limited or no treatment options. While the RAS/MAPK pathway has been well characterized and validated based on multiple compounds approved or in development targeting discrete signaling nodes in the cascade, most of these compounds face resistance and tolerability challenges, highlighting the need for new approaches to target this pathway. We believe that to effectively shut down a pathway that signals as promiscuously as RAS/MAPK, a holistic approach must be taken to target not just individual nodes, but multiple nodes and cooperative mechanisms in parallel. As depicted in the following figure and described below, we are pursuing three therapeutic strategies that may be used in combination with the goal of comprehensively, and perhaps synergistically, shutting down the RAS/MAPK pathway.



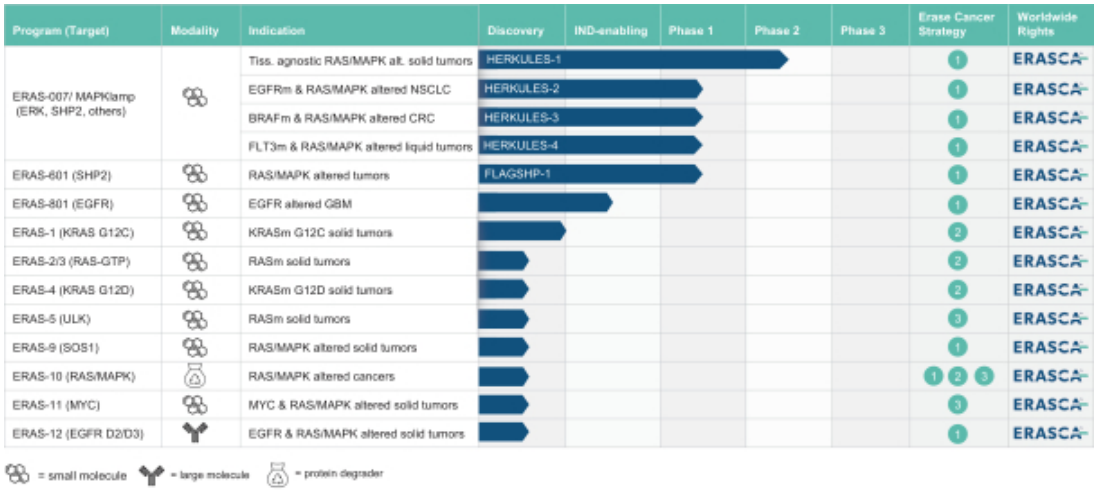

1. ***Target upstream and downstream MAPK pathway nodes with single agents and combinations intended to clamp these oncogenic drivers (MAPKlamp).*** Our first strategy to erase cancer is a novel MAPKlamp that targets upstream and downstream nodes, initially SHP2 (ERAS-601) and ERK (ERAS-007), respectively, to shut down, or "clamp," the signaling of various oncogenic drivers, such as receptor tyrosine kinases (RTKs), NF1, RAS, RAF, and MEK alterations, trapped in between any nodes involving this pathway. With our MAPKlamp approach, we hope to induce tumor regression in RAS/MAPK pathway-driven cancers, while also blocking their main escape routes that lead to tumor resistance. We are also discovering and developing single agent and combination approaches to target other upstream nodes that impact the RAS/MAPK pathway such as EGFR (ERAS-801 and ERAS-12), an RTK that represents a key escape route for RAS/MAPK signaling, and SOS1 (ERAS-9), a guanine nucleotide exchange factor that enables RAS to cycle from the inactive GDP state to the active GTP state.

2. ***Target RAS, the midstream MAPK pathway node, directly with single agents and combinations.*** We are discovering and developing molecules that have the potential to inhibit RAS in its inactive GDP state (RAS-GDP) as well as its more prevalent active GTP state (RAS-GTP). Utilizing our in-house discovery efforts employing structure-based drug design, we are developing proprietary central nervous system (CNS)-penetrant inhibitors of KRAS G12C (ERAS-1), which is the only RAS isoform and mutation that is more commonly present in the inactive RAS-GDP state. We are also developing proprietary compounds against KRAS G12D (ERAS-4), which is more commonly found in the active RAS-GTP state and is the most prevalent KRAS mutation. Our approach to targeting other RAS isoforms and mutations that are found more commonly in the RAS-GTP state is based on the foundational discoveries of one of our co-founders, Dr. Kevan Shokat, a world-renowned pioneer of novel therapeutic approaches to targeting key signaling pathways such as RAS/MAPK in cancer.

Dr. Shokat's deep expertise in chemical genetics, a combination of protein engineering and organic synthesis, led to his identification of both a binding pocket termed the "switch II pocket" (S-IIP) on KRAS G12C, a RAS-GDP mutation which was previously considered undruggable, and a compound that could bind to it. This seminal discovery has launched the development of multiple KRAS G12C inhibitors targeting the S-IIP. Dr. Shokat then turned his attention to RAS-GTP mutations which, compared to RAS-GDP mutations, are more challenging to drug and arguably more important, as other RAS isoforms and mutations are present more frequently in the active RAS-GTP state, thereby driving downstream phosphorylation and oncogenic signaling. Dr. Shokat made a breakthrough discovery of a new binding site termed the "switch II groove" (S-IIG), which could be utilized to inhibit the GTP and GDP states of RAS. This landmark discovery allows for the possibility of targeting multiple RAS isoforms (including KRAS, HRAS, and NRAS) and mutations (including G12X, G13X, and Q61X) with small molecule compounds that can potentially bind to the S-IIG. We entered into an exclusive worldwide license agreement with UCSF for Dr. Shokat's work related to RAS-GTP, which guides our ERAS-2/3 programs.

3. ***Target escape routes enabled by other proteins or pathways to further disrupt RAS/MAPK pathway signaling.*** RAS-driven cancers utilize escape routes, namely cooperative mechanisms, to develop resistance. As an example, RAS-driven cancers can become dependent on autophagy, which becomes constitutively active and represents a potential escape route for metabolically active tumors such as pancreatic ductal adenocarcinoma. By targeting ULK (ERAS-5), a key regulator of autophagy, in combination with our RAS targeting agents, we aim to shut down this potential escape route for RAS-driven cancers. We also are actively pursuing various ways to further disrupt RAS/MAPK pathway signaling by degrading key proteins (ERAS-10). Finally, MYC is a transcription factor and oncogene that is overexpressed in the majority of cancers and a key enabler of RAS/MAPK pathway signaling at the transcriptional level. We are discovering novel approaches to targeting MYC (ERAS-11).

To pursue these therapeutic strategies, we have assembled and are developing what we believe is the deepest pipeline targeting multiple signaling nodes to shut down the RAS/MAPK pathway. We intend to study these agents either alone or in rational combinations across multiple relevant tumor types. The following table summarizes our current, wholly-owned or controlled, modality-agnostic pipeline to eradicate RAS/MAPK pathway-driven cancers.



Our lead product candidates are ERAS-007 (our oral ERK1/2 inhibitor) and ERAS-601 (our oral SHP2 inhibitor), which together comprise our first MAPKlamp. The extracellular signal-regulated kinases (ERK), ERK1 and ERK2, belong to a family of serine-threonine kinases that regulate cellular signaling, and comprise the most distal node of the RAS/MAPK pathway. ERK proteins propagate signaling for multiple cellular functions involved in cell growth and differentiation, which are often overactivated in RAS/MAPK pathway-driven cancers. We in-licensed ERAS-007 based in part on preclinical studies that demonstrated the highest potency and longest target residence time of ERK inhibitors of which we are aware. Please see the results of such preclinical studies beginning on page 127 of this prospectus for more information on the relative potency and residence time exhibited in such studies. ERAS-007 has been evaluated as a single agent in a Phase 1 clinical trial in patients with advanced solid tumors. Forty-nine patients were enrolled and administered ERAS-007 once a day (QD) or once weekly (QW). Objective responses have been observed at doses from 120 mg to 250 mg QW in multiple tumor types (melanoma, salivary gland tumor, non-small cell lung cancer [NSCLC], and thyroid cancer) that all harbor alterations (BRAF, HRAS, and NRAS) in the RAS/MAPK pathway, supporting the development of ERAS-007 QW as a monotherapy or combination therapy in diverse, biomarker-selected tumor types. In this trial, ERAS-007 demonstrated a reversible and manageable adverse event profile.

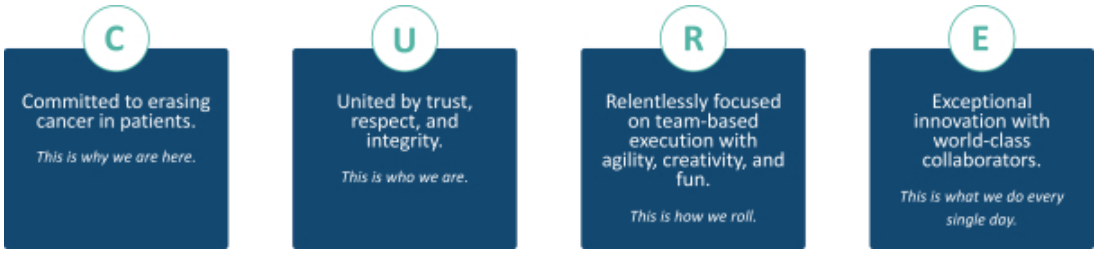
We are pursuing a broad clinical development plan for ERAS-007, which we refer to as our HERKULES series of clinical trials, across multiple tumor types that will include both monotherapy and combinations with approved and investigational agents, such as RTK, SHP2, RAS, and/or RAF inhibitors. The first four HERKULES Phase 1b/2 proof-of-concept (POC) clinical trials will explore both tissue agnostic and tissue specific indications in patients with solid tumors and hematologic malignancies, including NSCLC, colorectal cancer (CRC), and acute myeloid leukemia (AML). In May 2021, we dosed the first patient in HERKULES-1, a Phase 1b/2 clinical trial evaluating ERAS-007 as a single agent and in combination with ERAS-601 (MAPKlamp) in advanced solid tumors. We expect to dose the first patient in HERKULES-2, a Phase 1b/2 clinical trial for ERAS-007/MAPKlamp in combination with various agents in patients with NSCLC, in the third quarter of 2021. We expect to dose the first patient in HERKULES-3, a Phase 1b/2 clinical trial for ERAS-007/MAPKlamp in combination with various agents in patients with CRC, in the second half of 2021. Finally, in the first quarter of 2022, we expect to dose the first patient in HERKULES-4, a Phase 1b/2 clinical trial for ERAS-007/MAPKlamp in combination with various agents in patients with hematologic malignancies. While providing POC data, these trials may be expanded to enable potential accelerated approvals in their respective indications.

The second prong of our first MAPKlamp, ERAS-601, is designed to be a potent and selective oral inhibitor of SHP2, a convergent node for upstream RTK signaling and a critical “on/off switch” that activates RAS-GTP signaling. SHP2 also drives tumor cell proliferation and development of resistance. Our SHP2 inhibitor is designed to block oncogenic signal transduction and delay the onset of therapeutic resistance, and thereby serve as a backbone of combination therapy. In the fourth quarter of 2020, we initiated FLAGSHP-1, a Phase 1 clinical trial for ERAS-601 in patients with advanced solid tumors.

We anticipate that a development candidate (DevCan) arising from ERAS-1, our KRAS G12C inhibitor program with high CNS penetration, will enter IND-enabling studies in the second half of 2021. We are conducting IND-enabling studies for ERAS-801, our CNS-penetrant EGFR inhibitor, and expect to file an IND for development in refractory glioblastoma multiforme (GBM) in the first quarter of 2022. We are also advancing seven other programs targeting key oncogenic drivers in the RAS/MAPK pathway, which we will need to successfully progress through discovery and IND-enabling activities prior to advancing these programs into clinical development, if at all.

## Our core values, team, and social mission

We are a team of experienced drug discoverers, developers, and company builders who are united by our mission to erase cancer and passionate about creating potentially life-saving precision oncology medicines singularly focused on targeting the RAS/MAPK pathway. Our leadership team has broad and deep experience in oncology, including advancing therapeutic candidates from discovery research to clinical development, regulatory approval, and commercialization. Our core values are embodied by our quest for the CURE:




Dr. Jonathan Lim, our Chairman, CEO, and Co-Founder, has pioneered transformative advancements in precision oncology and drug delivery, including leading Ignyta's trailblazing pursuit of a global tissue agnostic label for ROZLYTREK, which became the first drug in biopharmaceutical history to achieve the unprecedented triple crown of breakthrough designations with BTD (FDA), PRIME (EMA) and Sakigake (PMDA). He has served as Chairman and/or CEO and founding investor of six biotechnology companies that have collectively achieved global regulatory approval and launch of seven therapeutic products in oncology, immunology, and drug delivery, benefitting thousands of patients worldwide.

Dr. Michael Varney, our Chairman of R&D, SAB member, and a member of our board of directors, is a pioneer drug discoverer and biotech leader. His leadership at Agouron resulted in the discovery of multiple currently marketed anti-cancer agents, including XALKORI and INLYTA. As Executive Vice President and Head of Genentech's Research and Early Development (gRED) and a member of the Roche Corporate Executive Committee, he was responsible for all aspects of gRED innovation, drug discovery and development, and built a team-based organization that today contributes to more than 40% of Genentech's development portfolio, including the marketed anti-cancer agents ERIVEDGE and COTELLIC. Under his leadership, gRED teams discovered and developed successful medicines that include VENCLEXTA with AbbVie, the first BCL-2 inhibitor, and POLIVY, an antibody drug conjugate for the treatment of diffuse large B-cell lymphoma (DLBCL).

Dr. Wei Lin, our Chief Medical Officer, was responsible for all development functions and the clinical development of Nektar's pipeline, including advancing bempegaldesleukin into multiple registrational trials and achieving FDA breakthrough therapy designation in metastatic melanoma. Prior to Nektar, Dr. Lin was the global development lead in cancer immunotherapy for lung cancer and head and neck cancer at Roche/Genentech. Under his leadership, his team oversaw 10 registrational studies, completed five positive Phase 3 trials, and achieved three US and EU regulatory approvals for TECENTRIQ, including the first advancement in first-line small cell lung cancer in three decades. He was also the site head for oncology product development for Roche China, where his team achieved multiple additional regulatory approvals for AVASTIN, ZELBORAF, and TARCEVA.

Dr. David Chacko, our Chief Financial Officer, joined us initially as Chief Business Officer from Versant Ventures, where he was a Principal with both investing and operating responsibilities. He helped lead investment opportunities across multiple therapeutic areas and advanced several Versant portfolio companies operationally through company formation, fundraising, corporate and business development, and clinical and regulatory activities. His prior roles at Alcon/Novartis, McKinsey, SR One, and Morgan Stanley bring to Erasca deep experience in strategy, finance, fundraising, business development, and operations.

Many members of our leadership team have worked together previously at Ignyta or Roche/Genentech, or have joined us from other leading companies in the biopharmaceutical and life science tools sectors such as Aragon, Illumina, Lilly, Medivation, Merck, Myovant, Neurocrine, Pfizer, Seragon, and Synthorx, and have worked on numerous oncology drugs that have been approved and launched for the benefit of patients.

Dr. Lim founded Erasca with Dr. Kevan Shokat (Professor and Chair of the Department of Cellular and Molecular Pharmacology at UCSF; Professor of Chemistry at the University of California, Berkeley; and an investigator at the Howard Hughes Medical Institute), who sits on our SAB with other RAS/MAPK pathway experts:

- Dr. Stephen Blacklow is a world expert in SHP2 who helped pioneer development of the first SHP2 inhibitor with Novartis, and is the Gustavus Adolphus Pfeiffer Professor of Biological Chemistry and Molecular Pharmacology, Biological Chemistry and Molecular Pharmacology at Harvard Medical School; a Professor of Pathology at the Brigham And Women's Hospital; a Professor of Cancer Biology at the Dana-Farber Cancer Institute; and the Chair of the Department of Biological Chemistry and Molecular Pharmacology at Harvard Medical School.
- Dr. Karen Cichowski is a world expert in RAS/MAPK pathway signaling, including elucidating how deregulated cell signaling drives tumorigenesis in nervous system, lung, prostate, and breast cancers, combining translational mouse modeling techniques with basic biochemical and cell biological studies, and in identifying novel combination therapies to shut down aberrant RAS/MAPK pathway signaling. She is Professor of Medicine at Harvard Medical School and Professor of Medicine/Genetics at Brigham and Women's Hospital.
- Dr. Ryan Corcoran is a gastrointestinal oncologist with a primary interest in translational oncology research who focuses on targeted therapies directed against mutations commonly found in human cancers, such as BRAF and KRAS mutations. He also is a world expert in ERK, having studied nearly every ERK inhibitor that has been or is being developed in the field. He is also the Director of the Gastrointestinal Cancer Center Program; the Scientific Director of the Termeer Center for Targeted Therapy at Massachusetts General Hospital Cancer Center; and an Associate Professor of Medicine at Harvard Medical School.
- Dr. George Demetri is a world expert in targeted oncology therapies who pioneered the development of GLEEVEC that helped launch the revolution in precision oncology. He is the Director of the Center for Sarcoma and Bone Oncology at the Dana-Farber Cancer Institute; the Director of the Ludwig Center at the Dana-Farber/Harvard Cancer Center; and Executive Director for Clinical and Translational Research at the Ludwig Institute for Cancer Research.
- Dr. Michael Varney is a pioneer drug discoverer and biotech leader and the former Executive Vice President and Head of Genentech's Research and Early Development (gRED) and a former member of the Roche Corporate Executive Committee.
- Dr. Pablo Viciana-Rodriguez is a world expert in the RAS/MAPK pathway whose major focus is the function of the SHOC2 phosphatase complex as a unique regulatory node required for efficient RAS/MAPK pathway activation in the context of diseases such as cancer and RASopathies. He has served as the group leader at the UCL Cancer Institute since 2008 and is a former postdoctoral researcher in Dr. Frank McCormick's lab at the University of California, San Francisco.

We are also supported by a leading syndicate of investors which include our founding investors, City Hill Ventures and Cormorant Asset Management, and ARCH Venture Partners, Andreessen Horowitz, Colt Ventures, EDBI, Invus, LifeSci Venture Partners, OrbiMed Healthcare Fund Management, PFM Health Sciences, and Terra Magnum.

At Erasca, while our mission to erase cancer inspires us, we know we can do more to make an even broader contribution to society. To that end, we are pursuing environmental, social, and governance (ESG) initiatives that are aligned with our core mission.

- **Erasca Foundation:** In May 2021, we established the Erasca Foundation, which will be funded by the donation of 1% of our capital stock prior to the closing of this offering. The Erasca Foundation will provide support such as direct research grants, hardship grants, patient advocacy, patient education in underserved populations, and funding for other initiatives to positively impact society.
- **Inclusive clinical trial participation:** We intend to make clinical trials of our product candidates more accessible to diverse patient populations and plan to partner with others who are like-minded in this regard.
- **Drug access program:** We intend to provide patients with access to the drugs we develop and commercialize, including through compassionate use programs if our products are demonstrated to be safe and efficacious. We also intend to increase access to life-changing drugs in underserved populations if our products become commercially available.

## Our corporate strategies to erase cancer

Our mission is to erase cancer by eradicating RAS/MAPK pathway-driven cancers. Our corporate strategies to achieve our mission include:

- ***Relentlessly focus on patients and society in our mission to erase cancer.*** There are approximately 5.5 million new patients diagnosed globally per year with cancers driven by RAS/MAPK pathway alterations, over 90% of whom have limited or no treatment options. We are a team of experienced drug discoverers, developers, and company builders who are united by our mission to erase cancer and passionate about creating potentially life-saving precision oncology medicines. In addition, we are pursuing ESG initiatives that are aligned with our core mission.
- ***Develop novel single agent and combination regimens to comprehensively shut down the RAS/MAPK pathway for the treatment of cancer.*** We are pursuing three therapeutic strategies that may be used in combination to comprehensively, and perhaps synergistically, shut down the RAS/MAPK pathway: (1) target upstream and downstream MAPK pathway nodes with single agents and combinations intended to clamp these oncogenic drivers (MAPKlamp); (2) target RAS directly with single agents and combinations; and (3) target escape routes enabled by other proteins or pathways to further disrupt RAS/MAPK pathway signaling. Our strategic focus on the RAS/MAPK pathway allows us to comprehensively target every critical node in the pathway that could drive cancer signaling.
- ***Advance our deep, modality-agnostic RAS/MAPK pathway-focused pipeline.*** We believe our internally and externally sourced RAS/MAPK pathway-focused pipeline, comprising 11 targeted therapy programs, is the deepest in the industry. Our modality-agnostic approach aims to selectively and potently inhibit or degrade critical RAS/MAPK signaling nodes with small molecule therapeutics, large molecule therapeutics, and protein degraders. ERAS-007 (our ERK inhibitor) and ERAS-601 (our SHP2 inhibitor) are currently being studied in clinical trials. We expect to have four product candidates in the clinic within the next six quarters, plus an additional IND filing every 12-18 months over the next five years. Given the high unmet need of the patients we seek to treat, we will evaluate the potential for expedited development and review pathways.
- ***Internally and externally source, on a global basis, potentially disruptive programs targeting RAS/MAPK pathway alterations.*** We have built a productive and efficient internal discovery engine. Our world-class structural biology team generates more than 100 protein structures annually and we use computational biology and computational chemistry to accelerate our discovery activities. While we have strong internal

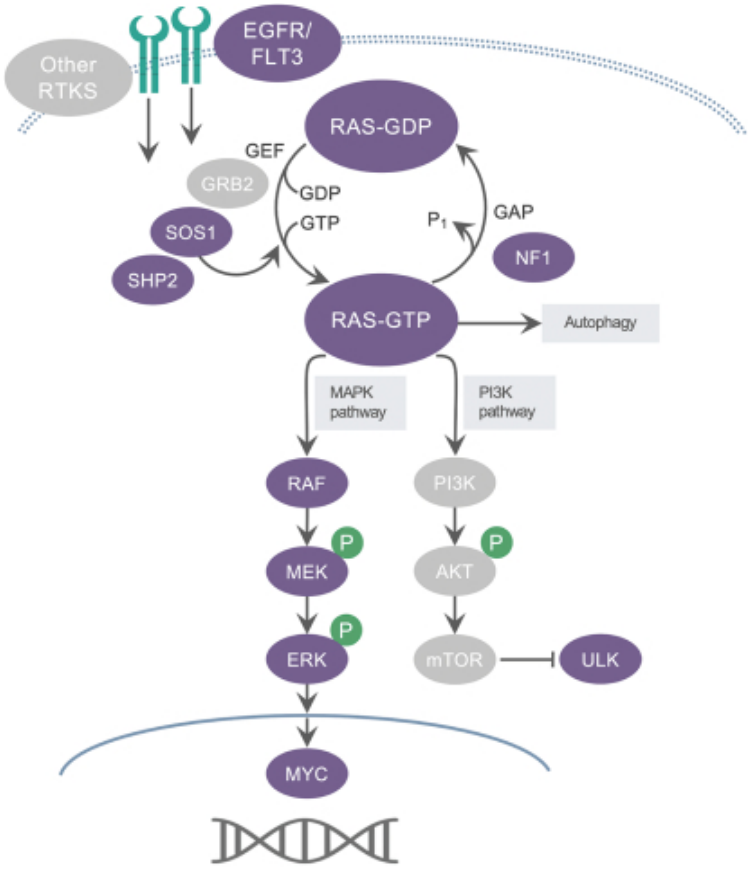
capabilities, we also believe that innovation is a collective, global endeavor and a single platform is unlikely to discover all the best ideas and approaches. We therefore plan to continue to pursue synergistic, in-pathway opportunities, regardless of origin, that meet our high scientific bar. Our extensive network and relationships provide us preferential—and at times exclusive—access to certain assets of interest.

- ***Lead the next revolution in precision oncology.*** The first wave of precision oncology included tyrosine kinase inhibitors such as ROZLYTREK, approved for select tumors that harbor ROS1 or NTRK fusions. While these initial development efforts focused on specific disease-causing alterations in areas of high unmet need, these patient populations were modest in size. We believe that to effectively shut down a pathway that signals as promiscuously as RAS/MAPK and that encompasses a range of alterations, a holistic approach must be taken to target not just specific individual mutations, but multiple alterations and cooperative mechanisms in parallel. We are pursuing tissue agnostic and tissue specific labels with dynamically designed biomarker-based basket and umbrella studies, respectively, as well as master protocols, in order to quickly demonstrate clinical proof-of-concept in a variety of tumor types for both single agent and combination approaches.
- ***Evaluate opportunities to accelerate development timelines and enhance the commercial potential of our programs in collaboration with third parties***. We own or control worldwide development and commercialization rights to our entire pipeline of 11 targeted therapy programs. This provides us with the flexibility to explore combinations of our agents with each other, other investigational agents, and/or standard of care therapies. We intend to continue evaluating opportunities to work with partners that meaningfully enhance our capabilities with respect to the development and commercialization of our product candidates. In addition, we intend to commercialize our product candidates in the United States and possibly Europe, where as many as 1.8 million patients are diagnosed annually with RAS/MAPK pathway alterations. We intend to explore partnerships in selected geographies to maximize the worldwide commercial potential of our programs.

## Our singular focus on the RAS/MAPK pathway

***Background***

The RAS/MAPK pathway is one of the most frequently altered signaling pathways in cancer. Molecular alterations in key signaling nodes within the RAS/MAPK pathway have been shown to drive cell proliferation across a wide range of tumor types. As described further below, our wholly-owned or controlled pipeline targets all of the key signaling nodes colored in purple, either directly or indirectly as single agents and in combination in order to prolong survival in a wide range of patient populations.




***EGFR/FLT3***

EGFR and FLT3 are RTKs, which are proteins that are embedded in the cell membrane and relay growth signals from the outside environment to the cell's internal machinery. At rest, these proteins reside on the cell membrane as inactive monomers. Growth factors secreted by nearby cells bind to specific RTKs, such as growth factor EGF binding to EGFR and FL binding to FLT3, and cause these RTKs to dimerize. Dimerized RTKs activate one another through transphosphorylation of their intracellular regions. Intracellular proteins, such as adapter proteins, bind to these phosphorylated regions and propagate the pro-growth signals within the cell via one or more signaling pathways. Cells express a variety of RTKs so that environmental cues can be relayed to specific cell populations in specific contexts. EGFR mediates pro-growth signaling in skin and in the ducts and outer surfaces of many organs. FLT3 predominantly mediates pro-growth signaling in immature blood cells.

Overactive RTK signaling can result in uncontrolled cell growth and survival that transforms normal cells into cancer cells.

***SHP2***

SHP2 is a protein tyrosine phosphatase and a key positive regulator of the growth signals from the RTK growth factor receptors to the intracellular signaling pathways (including RAS/MAPK and PI3K) that promote growth and survival of normal cells and cancer cells. As such, SHP2 is a convergent node for upstream RTK signaling: activated SHP2 upregulates (“turns up”) the positive signals and downregulates (“turns down”) the negative signals in the signaling cascades. SHP2 also serves as a central node in relaying the growth and survival signals from RTKs such as EGFR and FLT3 to RAS/MAPK and other intracellular pathways. SHP2 is an attractive target because SHP2 inhibition ubiquitously blocks the growth signals from multiple RTKs, preventing cancer cells from bypassing the blockade on a specific RTK (e.g., EGFR inhibitor) through activation of other RTK growth factor receptors (e.g., MET).

***SOS1***

SOS1, or Son of Sevenless-1, is a protein that is recruited to RTK complexes and, in turn, recruits and activates members of the RAS protein family. SOS1 activates RAS proteins by acting as a guanine nucleotide exchange factor (GEF), which facilitates the exchange of the RAS-bound nucleotide from guanine diphosphate (GDP) to guanine triphosphate (GTP). When GDP is exchanged for GTP, RAS adopts an active conformation that enables it to bind and activate downstream effector proteins, such as the RAF family, which ultimately results in RAS/MAPK pathway activation.

***NF1***

NF1, or neurofibromin, is a protein that accelerates the transition of RAS proteins from the active RAS-GTP state to the inactive RAS-GDP state. NF1 is classified as a GTPase activating protein (GAP) because it boosts the ability of RAS to hydrolyze bound GTP to GDP. Although RAS can autonomously hydrolyze GTP, it is dependent on GAPs such as NF1 to rapidly cycle it from the active state to the inactive state and thereby prevent overactive signaling. If NF1 is inactivated due to a mutation (NF1 loss-of-function mutation), RAS proteins may spend more time in the active RAS-GTP state. This can result in hyperactive RAS/MAPK pathway activation that drives aberrant cell growth and ultimately tumorigenesis. This is observed in patients affected by a genetic disorder caused by somatic mutations in the NF1 gene called neurofibromatosis type 1. NF1 loss-of-function mutations are observed in a variety of cancers, including melanoma and CRC, where they activate RAS/MAPK signaling alone or in conjunction with other RAS/MAPK pathway activating mutations.

***RAS***

RAS proteins are ubiquitously expressed GTPase proteins. The RAS protein family consists of KRAS, NRAS, and HRAS proteins and acts as the entry node in the MAPK signaling pathway. KRAS is the most abundantly expressed RAS protein followed by NRAS and then HRAS. RAS proteins act as signaling transducers since they are recruited to activated RTK complexes where they are converted into an active conformation (RAS-GTP) that enables them to activate downstream effector proteins, such as RAF proteins. The activation state of a RAS protein is dictated by the phosphorylation state of the bound guanosine: RAS adopts an inactive RAS-GDP conformation when bound to GDP and an active RAS-GTP conformation when bound to GTP. Conversion of RAS into an active conformation is mediated by binding to co-factor proteins, e.g., SOS1, and these co-factor proteins enable the exchange of the RAS-bound nucleotide from GDP to GTP. In the active state, RAS-GTP

proteins interact with multiple effector proteins to propagate cell signaling through multiple pathways. For example, activated RAS-GTP proteins interact with RAF proteins to activate MAPK signaling, and PI3K proteins to activate PI3K pathway signaling. RAS can transition from the active state into the inactive state by hydrolyzing its bound nucleotide from GTP to GDP either intrinsically or catalyzed through interactions with co-factor proteins, such as NF1. RAS proteins are the most frequently mutated oncoproteins in cancer. These mutations occur at hotspots, such as amino acid residues 12, 13, and 61, and these hotspot mutations impair RAS's ability to hydrolyze GTP to GDP. As a result, mutant RAS-GTP remains in the active state for prolonged periods of time resulting in hyperactive stimulation of the RAS/MAPK and other pathways.

***RAF***

RAF proteins are ubiquitously expressed serine-threonine kinases that are a part of the RAS/MAPK pathway and whose activity is regulated by RAS proteins. The RAF protein family consists of ARAF, BRAF, and CRAF (RAF1). In the absence of activated RAS-GTP, RAF proteins assume an autoinhibited conformation in complex with downstream effector proteins, MEK1 and MEK2. RAF proteins can homodimerize (e.g., BRAF-BRAF dimers) or heterodimerize (e.g., CRAF-BRAF dimers). When RAF proteins bind to activated RAS-GTP, they adopt an active conformation that results in activation of their kinase domains. The activated kinase domains then phosphorylate complexed MEK proteins, activating those proteins and releasing them from the RAF-MEK complex. Activated MEK then signals further down the RAS/MAPK pathway. Mutations in RAF proteins, especially in BRAF, have been observed in many cancers, such as melanoma, CRC, NSCLC, and thyroid cancer. For example, the BRAF V600E mutation (a class I BRAF mutation) is frequently observed in melanoma and this mutation enables BRAF to constitutively activate MEK as a monomer. Approved BRAF inhibitors for class I mutations include vemurafenib, dabrafenib, and encorafenib. Class II BRAF mutations enable BRAF to constitutively dimerize and activate MEK. Class III BRAF mutations impair the ability of the mutant BRAF protein to phosphorylate MEK, but class III mutant BRAF proteins can aberrantly dimerize with wildtype RAF proteins and enable their dimerized wildtype RAF partners to activate MEK. To our knowledge, there are no approved inhibitors of BRAF Class II or Class III mutations. A number of inhibitors targeting BRAF Class II and Class III mutations, as well as pan-RAF inhibitors designed to disrupt wild type RAF signaling, are in development; however, to our knowledge, none have received regulatory approval.

***MEK***

MEK1 and MEK2 proteins are ubiquitously expressed serine-threonine kinases that are activated by RAF-mediated phosphorylation and signal downstream by activating ERK proteins. MEK1 and MEK2 proteins form complexes with RAF proteins in the inactive state and are recruited as a unit to activated RAS-GTP. RAS-GTP then activates the RAF-MEK complex by binding to RAF, which then activates MEK via phosphorylation and releases from the RAF-MEK complex. Activated MEK then selectively phosphorylates ERK1 and ERK2 proteins, which are the most distal nodes of the RAS/MAPK pathway. Currently approved MEK inhibitors, such as trametinib, binimetinib, cobimetinib, and selumetinib, allosterically bind MEK proteins and inhibit MEK activation, either as free proteins alone or in complex with RAF. The inhibition of RAS/MAPK signaling by MEK inhibitors can result in an upregulation of signaling upstream of MEK due to negative feedback loops within the RAS/MAPK pathway. This increased signaling pressure can overwhelm MEK inhibitors and result in reactivation of MAPK signaling. Most MEK inhibitors are approved in combination with a BRAF inhibitor partially due to their vulnerability of being overwhelmed by the reactivation of MAPK signaling. In this combination, BRAF inhibitors attenuate upstream signaling pressure on MEK inhibitors, and MEK inhibitors further limit downstream MAPK signaling not inhibited by the BRAF inhibitor.

***ERK***

The extracellular signal-regulated kinases (ERK), ERK1 and ERK2, are ubiquitous serine-threonine kinases that regulate cellular signaling in both physiological and pathological states and comprise the most distal node of the RAS/MAPK pathway. Once activated by MEK, ERK proteins phosphorylate thousands of downstream proteins, propagating RAS/MAPK signaling across multiple cellular functions. In contrast to currently approved allosteric MEK inhibitors, ERK inhibitors in development are ATP-competitive and as a result, their potency is robust against the activated state of ERK. Based on this property, ERK inhibitors potentially can overcome drug resistance mechanisms that involve reactivation of RAS/MAPK pathway signaling, such as a rebound of RAS/MAPK signaling resulting from the alleviation of negative feedback or an upstream RAS/MAPK pathway protein adopting an acquired resistance mutation.

***ULK***

Autophagy is a metabolic process that cells use to break down and recycle cellular components. This process enables cells to renew cellular components whose functions are impaired due to age or malfunction. Autophagy also serves as a survival mechanism in nutrient deprived conditions, enabling the cell to continue to synthesize critical cellular components. RAS-driven tumor cells reconfigure many of their metabolic processes, including autophagy, to better fuel their growth and survival. Autophagy can act as a resistance mechanism to RAS/MAPK pathway inhibitors by becoming constitutively active and enabling the cell to survive metabolic stresses induced by the inhibition of RAS/MAPK pathway signaling. ULK1 and ULK2 are serine-threonine kinases that control the initiation of autophagy, thereby acting as gatekeepers of autophagy. Combining a RAS/MAPK pathway inhibitor with an ULK1 and/or ULK2 inhibitor can potentially inhibit tumor growth by blocking upregulation of autophagy, a potential escape route or adaptive resistance mechanism to the RAS/MAPK pathway inhibitor.

***MYC***

The MYC protein (also known as c-MYC) is a transcription factor that regulates the transcription of hundreds of genes that are associated with cell growth. Transcription factors guide the cellular machinery to transcribe specific genes in the nucleus and those transcribed genes are then translated into proteins in the cytoplasm. Transcription factors are regulated by multiple signaling pathways, including RAS/MAPK, and they integrate this signaling information to transcribe genes in a context-dependent manner. Dimerization is required for MYC transcription factor activity and MYC's most frequent dimerization partner is MAX. The activity of the MYC-MAX complex is largely driven by the concentration of MYC protein in the nucleus but other factors, such as the phosphorylation status of MYC, also regulate MYC activity. Given MYC's critical role in regulating genes that drive cell growth, MYC function is dysregulated in 40% of cancers and MYC overexpression is the most frequent form of MYC dysregulation. MYC's role as a transcription factor and not an enzyme has made the development of inhibitors targeting the MYC protein challenging. We believe inhibiting the transcription of MYC and/or MYC-agonists, such as MAX, offers a promising alternative therapeutic approach to reduce MYC activity in tumors where the traditional direct targeting of the MYC protein has failed. MYC and RAS are two of the most commonly dysregulated genes in human cancer and are also downstream effectors for a range of other oncogenic mutations in a variety of tumor types. MYC and RAS also frequently cooperate with each other in tumor development, heightening the urgency of targeting these two pivotal oncogenes.

Our approach is focused on comprehensively silencing the RAS/MAPK pathway by targeting these key signaling nodes, from upstream RTKs to downstream nuclear transcription factors, which have been shown to drive cell proliferation across a wide range of tumor types.

## Patient lives at stake annually with RAS/MAPK pathway alterations

At Erasca, we are on a bold mission to erase cancer. The journey will be long, and it won't be easy. But patients with cancer are waiting, and we are eager to make new therapies available as soon as possible. Our mission will involve delivering new therapies to patients in markets where there are limited or no approved therapies, which are referred to as "blue oceans" (adapted from *Blue Ocean Strategy* by Chan Kim & Renée Mauborgne), as well as markets where there are already approved or soon to be approved product offerings, or "red oceans." Of the approximately 5.5 million new patients diagnosed globally per year with cancers driven by RAS/MAPK pathway alterations, over 90% (approximately 5 million patients) are in blue oceans with limited or no treatment options. In the United States and Europe, there are over 1.8 million patients per annum who could be treated with the therapies we are seeking to develop and commercialize. In other parts of the world, we intend to explore partnerships in selected geographies to maximize the worldwide commercial potential of our programs. We believe our deep and focused pipeline has the potential to target 100% of CRC, ~90% of pancreatic cancer, ~70% of head and neck squamous cell carcinoma (HNSCC), ~65% of melanoma, ~55% of GBM, ~40% of NSCLC, and ~40% of AML, and also the potential to provide targeted therapy options for many patients with RAS/MAPK pathway-driven tumors in a wide range of less common histologies.

***New cases estimated worldwide per annum (thousands; numbers may not add up due to rounding)***

| Alterations | GBM | HNSCC | NSCLC | CRC | Melanoma | PDAC | Other solid tumors | AML | US | EU | ROW | Global |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EGFR*/FLT3 | 125 | 513 | 184 | 338 | - | - | - | 61 | 82 | 222 | 917 | 1,220 |
| NF1 | 25 | 58 | 98 | 35 | 33 | 1.9 | 434 | 3.2 | 75 | 159 | 453 | 687 |
| KRAS G12C | - | 2.8 | 240 | 57 | - | 5.0 | 45 | 0.1 | 36 | 82 | 232 | 350 |
| Other KRAS | 0.5 | 14.1 | 252 | 703 | 1.6 | 420 | 527 | 4.7 | 179 | 470 | 1,273 | 1,922 |
| NRAS | 0.5 | 8.4 | 11.7 | 72 | 71 | 1.0 | 116 | 13.8 | 42 | 82 | 170 | 295 |
| HRAS | 0.2 | 45 | 7.8 | 0.4 | 3.0 | 0.2 | 57 | - | 11 | 24 | 80 | 114 |
| BRAF V600E/K | 2 | 1.9 | 23 | 130 | 93 | 1.4 | 158 | 0.4 | 56 | 113 | 242 | 411 |
| Other BRAF | 0.5 | 4.7 | 33 | 24 | 9.7 | 0.8 | 87 | 0.2 | 18 | 39 | 103 | 160 |
| MEK | 0.2 | 1.9 | 11.7 | 8.8 | 4.6 | 0.2 | 22 | - | 5 | 11 | 33 | 50 |
| Co-occurring activating MAPK pathway alterations** | 1.4 | 10.3 | 62 | 59 | 37 | 7.1 | 84 | 3.0 | 33 | 69 | 162 | 264 |
| US | 12 | 29 | 93 | 110 | 77 | 51 | 153 | 11 | 536 | | | |
| EU | 34 | 76 | 194 | 385 | 116 | 124 | 324 | 18 | | 1,271 | | |
| Rest of World | 109 | 555 | 635 | 931 | 60 | 264 | 1,053 | 57 | | | 3,664 | |
| Global | 155 | 660 | 923 | 1,426 | 253 | 438 | 1,530 | 86 | | | | 5,472 |

* Post-Osimertinib resistant population shown for EGFRm NSCLC except for SCLC transformation

** Co-occurring activating MAPK pathway alterations exclude EGFR overexpression

Source: SEER database (2020), ECIS database (2020), GLOBOCAN database (2020), The AACR Project GENIE Consortium version 8.1 (2020), TCGA Research Network: https://www.cancer.gov/tcga, Tyner JW et al. (2018) PMID: 30333627, Brenner DR et al. (2013) PMID: 24120142, Chen J et al. (2020) PMID: 32015525, and Ostrom QT, et al. (2020) PMID: 33123732

Blue ocean opportunities

Red ocean opportunities

## Our therapeutic strategies for shutting down the RAS/MAPK pathway

We believe that to effectively shut down a pathway that signals as promiscuously as RAS/MAPK, a holistic approach must be taken to target not just single nodes, but multiple nodes and cooperative mechanisms in parallel. We believe our internally and externally sourced RAS/MAPK pathway-focused pipeline, comprising 11 targeted therapy programs, is the deepest in the industry. The target breadth and molecular diversity represented in our pipeline enable us to pursue a systematic, data-driven clinical development effort to identify single agent and combination approaches that aim to prolong survival in a wide range of patient populations with unmet needs. We are pursuing three therapeutic strategies that may be used in combination with the goal of comprehensively, and perhaps synergistically, shutting down the RAS/MAPK pathway:


1. ***Target upstream and downstream MAPK pathway nodes with single agents and combinations intended to clamp these oncogenic drivers (MAPKlamp).*** Our first therapeutic strategy to erase cancer is a novel MAPKlamp that targets upstream and downstream nodes, initially SHP2 and ERK, respectively, to shut down, or clamp, the signaling of various oncogenic drivers such as RTKs, NF1, RAS, RAF, and MEK alterations trapped in between any nodes involving this pathway. With our MAPKlamp approach, we aim to induce tumor regression in RAS/MAPK pathway-driven cancers, while also blocking their main escape routes that lead to tumor resistance. We are also discovering and developing single agent and combination approaches to target other upstream nodes that impact the RAS/MAPK pathway such as EGFR, an RTK that represents a key escape route for RAS/MAPK pathway signaling, and SOS1, a GEF that enables RAS to cycle from the inactive GDP state to the active GTP state.

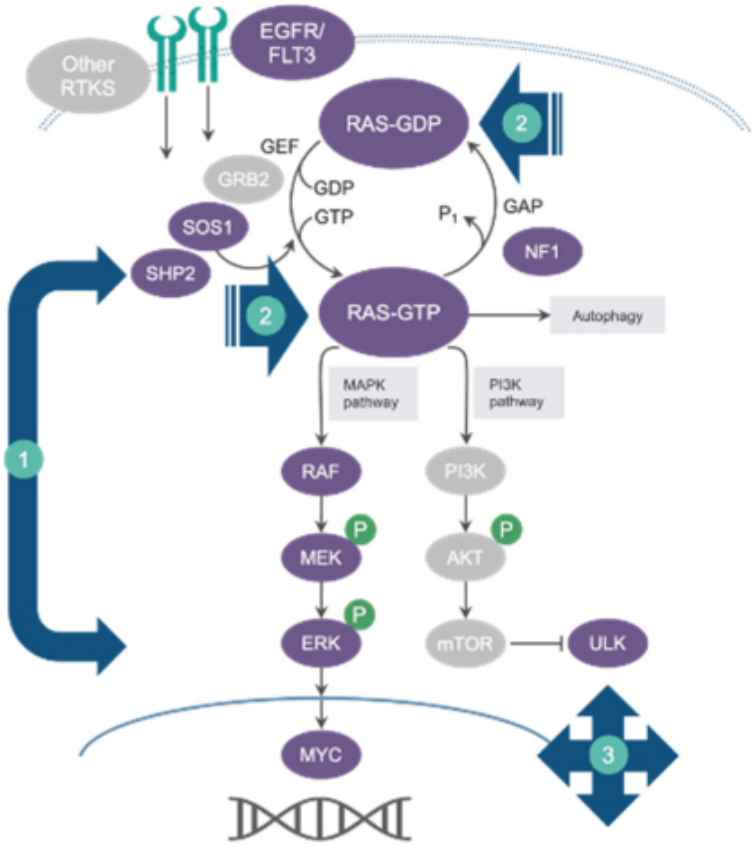
2. ***Target RAS, the midstream MAPK pathway node, directly with single agents and combinations.*** Our second therapeutic strategy to erase cancer is to target RAS directly by discovering and developing molecules that have the potential to inhibit RAS-GDP, as well as the more prevalent RAS-GTP. Utilizing our in-house discovery efforts employing structure-based drug/degrader design (SBDD), we are developing a CNS-penetrant inhibitor of KRAS G12C, which is the only RAS isoform and mutation that is more commonly present in the inactive RAS-GDP state. We are also employing SBDD to develop proprietary compounds against KRAS G12D, which is more commonly found in the active RAS-GTP state and is the most prevalent KRAS mutation. Our approach to targeting other RAS isoforms and mutations that are found more commonly in the RAS-GTP state is based on the foundational discoveries of one of our co-founders, Dr. Kevan Shokat, a world-renowned pioneer of novel therapeutic approaches to targeting key signaling pathways such as RAS/MAPK in cancer.

   Dr. Shokat's deep expertise in chemical genetics, a combination of protein engineering and organic synthesis, led to his identification of both the S-IIP binding pocket on KRAS G12C, a RAS-GDP mutation which was previously considered "undruggable," and a compound that could bind to it. This seminal

discovery has launched the development of multiple KRAS G12C inhibitors targeting the S-IIP. Dr. Shokat then turned his attention to RAS-GTP mutations which, compared to RAS-GDP mutations, are more challenging to drug and arguably more important, as other RAS isoforms and mutations are present more frequently in the active RAS-GTP state, thereby driving downstream phosphorylation and oncogenic signaling. Dr. Shokat made a breakthrough discovery of a new binding site termed the “switch II groove” (S-IIG), which could be utilized to inhibit the GTP and GDP states of RAS. This landmark discovery allows for the possibility of targeting multiple RAS isoforms (including KRAS, HRAS, and NRAS) and mutations (including G12X, G13X, and Q61X) with small molecule compounds that can potentially bind to the S-IIG.

3. ***Target escape routes enabled by other proteins or pathways to further disrupt RAS/MAPK pathway signaling.*** Our third therapeutic strategy to erase cancer is to target other pathways and mechanisms that cooperate with RAS/MAPK pathway signaling. For example, RAS-driven cancers can become dependent on autophagy, which becomes constitutively active and represents a potential escape route for metabolically active tumors such as pancreatic ductal adenocarcinoma. By targeting ULK, a key regulator of autophagy, in combination with our RAS targeting agents, we aim to shut down this potential escape route for RAS-driven cancers. We also are actively pursuing various ways to further disrupt RAS/MAPK signaling by degrading key proteins. Finally, MYC is a transcription factor and oncogene that is overexpressed in the majority of human cancers, contributing to at least 40% of tumors and is a key enabler of RAS/MAPK pathway signaling at the transcriptional level. We are discovering novel approaches to targeting MYC.

Our strategic focus on the RAS/MAPK pathway allows us to comprehensively target every critical node in the pathway that could drive signaling. As shown in the figure below, our wholly-owned or controlled pipeline targets, either directly or indirectly, each of the signaling nodes colored in purple.




## Our innovation model

Due to the magnitude of the challenge of erasing cancer, we are combining our robust internal discovery and development capabilities with a global in-licensing and acquisition strategy to assemble the industry's deepest, modality-agnostic RAS/MAPK pathway-focused pipeline. We believe these complementary approaches to innovation provide us with important optionality, both therapeutically and strategically, as we endeavor to bring forth the next generation of potentially differentiated targeted therapies for RAS/MAPK pathway-driven cancers.

***Internal discovery and development***

We have built a productive and efficient internal discovery engine at the heart of which lies SBDD, a key tool for the discovery of novel small molecule therapeutics and protein degraders by elucidating the three-dimensional structure of the potential drug molecule or degrader bound to the target protein of interest, allowing scientists to better understand and iterate on the structure-activity relationship of their hit and lead compounds or degraders. Three of our senior scientists were early pioneers in the use of SBDD while at Agouron Pharmaceuticals (now Pfizer), the first biotechnology company to use protein structure to inform medicinal

chemistry for drug discovery: Dr. Dave Matthews, the scientific founder of Agouron, is our Senior Crystallography Advisor; Dr. Michael Varney, one of the original employees at Agouron who built the team that developed SBDD, is our Chairman of R&D, SAB member, and a member of our board of directors; and Dr. Ping Chen, our Senior Director of Crystallography, was a member of Dr. Matthews' structural biology team at Agouron, and joined us from Pfizer to lead our internal structural biology efforts which generates more than 100 protein structures annually to guide our discovery research.

We use computational biology and computational chemistry to accelerate our discovery activities. We have standardized how we characterize our compounds across in vitro/vivo activity, drug distribution, metabolism, and pharmacokinetics (PK), structural, and secondary pharmacology assays, and centralized the storage of these data for automated analyses. These data are continuously reviewed by our scientific teams, and promising trends, including unpredicted ones that arise serendipitously, are prioritized for future exploration.

We supplement our medicinal chemistry efforts with DNA encoded library (DEL) screens to identify novel chemical matter with promising activity against targets of interest. These "hits" give us starting points for our early-stage drug discovery programs, and also provide opportunities to diversify molecular designs for later-stage discovery programs. DEL screens interrogate the binding of billions of compounds against our targets and increase the likelihood that we will discover a fragment that we can eventually transform into a potent therapy.

Based on our previous collective experiences at Ignyta, Roche/Genentech, Pfizer, and elsewhere, our team has extensive precision oncology expertise with dynamic clinical trial designs such as adaptive trials, biomarker-based basket and umbrella studies, and master protocols. We will continue to leverage this experience, in collaboration with industry and academic partners, in order to quickly demonstrate clinical proof-of-concept in a variety of tumor types for both single agent and combination approaches.

***External sources of innovation***

We believe innovation in cancer therapy is a collective, global endeavor unlikely to emerge from a single company or a single platform. There are exciting product candidates, technologies, and approaches in development worldwide, and our innovation model gives us the flexibility to supplement our internal efforts with externally sourced assets through collaboration, in-license, or acquisition. We also established Erasca Ventures, LLC, our wholly-owned subsidiary, in March 2021 to potentially make equity investments in early-stage biotechnology companies that are aligned with our mission and strategy. To date, we have in-licensed or acquired novel therapies from multiple geographic regions, including our clinical-stage, oral ERK1/2 inhibitor, ERAS-007, which we acquired from Asana.

We leverage our extensive network of preferred relationships with our Scientific and Research & Development Advisory Boards, as well as leading institutional investors, investment banks, academic institutions, and biopharmaceutical companies that keep us apprised of assets of strategic interest. We pursue the best science in the world, regardless of its origin, and will continue to evaluate additional opportunities to strengthen and diversify our pipeline through academic and biopharmaceutical collaborations, in-licenses, acquisitions, and strategic investments that meet our high scientific bar and can help us advance our mission to erase cancer.

***Modality-agnostic pipeline***

Cancer is a complex, heterogeneous disease that is unlikely to succumb to a one-size-fits-all approach. We believe shutting down the RAS/MAPK pathway in cancer requires a systematic, data-driven approach to development, part of which involves choosing the most appropriate technology for the target of interest, or what we call a modality-agnostic approach. We therefore seek to understand the biology of the target of

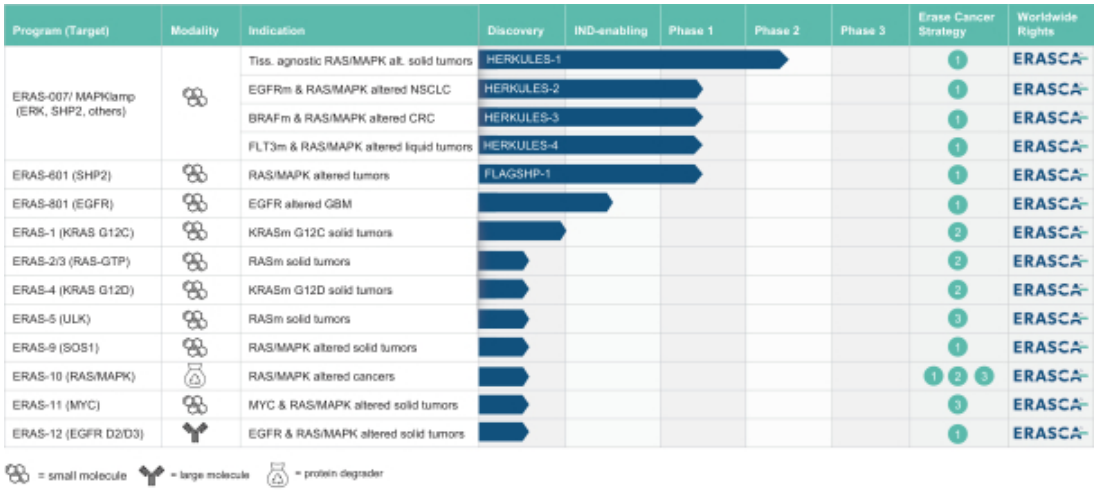
interest first, and then choose the therapeutic modality best suited to optimally inhibit or degrade that target. We are currently utilizing several modalities to target the RAS/MAPK pathway, including small molecule therapeutics, large molecule therapeutics, and protein degraders.

For example, our collaboration with ELS has given us access to world-class large molecule capabilities. Our collaboration with ELS gives us access to cutting-edge biologics technology that adds, for example, ERAS-12 (a bispecific antibody against EGFR D2/D3) to our armamentarium against oncogenic RAS/MAPK pathway signaling.

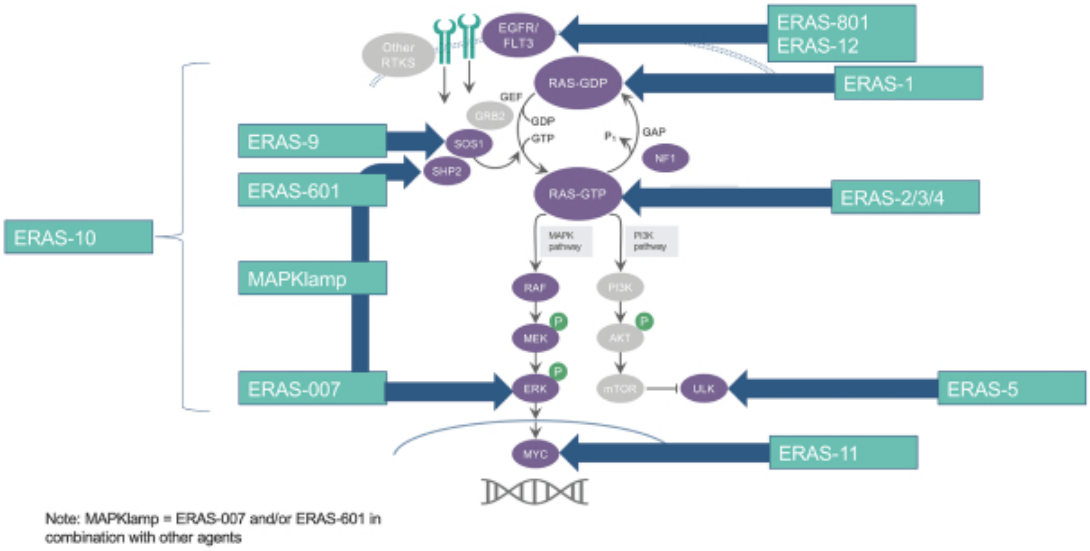
We are developing protein degraders in addition to our internal small molecule discovery capabilities, including proteolysis targeting chimeras (PROTACs), as a complementary strategy to modulate RAS/MAPK pathway proteins of interest. PROTAC-mediated degradation is a viable option for attenuating oncogenic RAS/MAPK pathway levels and downstream signaling in cancer cells, by utilizing the body's own natural disposal system to remove oncogenic proteins selectively and efficiently.

## Our pipeline

We have assembled what we believe is the deepest, wholly-owned or controlled RAS/MAPK pathway-focused pipeline in the industry, comprising 11 modality-agnostic programs aligned with our three therapeutic strategies of: (1) targeting key upstream and downstream signaling nodes in the RAS/MAPK pathway; (2) targeting RAS directly; and (3) targeting escape routes that emerge in response to treatment. The figure below summarizes our current pipeline. We have exclusive worldwide development and commercial rights for all of our programs.



Importantly, we believe the target breadth and molecular diversity represented in our pipeline enable us to pursue a systematic, data-driven clinical development effort to identify single agent and combination approaches designed to comprehensively shut down the RAS/MAPK pathway in a range of underserved cancer indications. The figure below illustrates the overlay between our current pipeline and several key nodes in the RAS/MAPK pathway that we believe are attractive targets for therapeutic intervention. Our pipeline also provides potential solutions for patients with limited or no treatments available by directly targeting with single agents and/or clamping with combinations, the various nodes of the RAS/MAPK pathway.




***MAPKlamp: our therapeutic strategy targeting proximal and distal nodes of the RAS/MAPK pathway***

Our first therapeutic strategy to erase cancer is MAPKlamp, a novel approach targeting upstream and downstream nodes in the RAS/MAPK pathway designed to shut down, or clamp, the signaling of various oncogenic drivers, such as RTKs, NF1, RAS, RAF, and MEK alterations trapped in between any nodes involving this pathway. With our MAPKlamp approach, we aim to induce tumor regression in RAS/MAPK pathway-driven cancers, while also blocking the main escape routes that lead to tumor resistance.

Our lead product candidates are ERAS-007 (our oral ERK1/2 inhibitor) and ERAS-601 (our oral SHP2 inhibitor), which together comprise our first, innovative MAPKlamp. ERK and SHP2 are the convergent downstream and upstream nodes of the RAS/MAPK pathway, respectively. ERK proteins propagate signaling for multiple cellular functions involved in cell growth and differentiation, which are often overactivated in RAS/MAPK pathway-driven cancers. We believe that targeting ERK, the most distal node of the RAS/MAPK pathway, is preferable to targeting MEK because it is less prone to MAPK pathway reactivation, which leads to greater suppression of signaling. The second prong of our MAPKlamp, ERAS-601, is a potent and selective oral inhibitor of SHP2, a critical “on/off switch” that activates RAS-GTP signaling. Our SHP2 inhibitor is designed to block oncogenic signal transduction and delay the onset of therapeutic resistance. Targeting either or both of these key nodes thereby has the potential to serve as a backbone of combination therapy against RAS/MAPK pathway altered cancers.

As our portfolio advances, we anticipate additional MAPKlamp combinations to emerge. Given the breadth of our pipeline, we believe we are the only company that has the therapeutic and strategic flexibility to comprehensively target every critical node in the RAS/MAPK pathway that could drive cancer signaling.

***ERAS-007: our ERK inhibitor***

ERAS-007 is designed to be a potent and selective oral inhibitor of ERK1/2. We in-licensed ERAS-007 from Asana based in part on preclinical studies that demonstrated the highest potency and longest target residence time of ERK inhibitors of which we are aware. In a Phase 1 clinical trial, ERAS-007 demonstrated single-agent activity including objective responses in tumors harboring RAS/MAPK pathway alterations and was well tolerated. We are pursuing a broad clinical development plan for ERAS-007, which we refer to as our HERKULES series of clinical trials, across multiple tumor types that will include both monotherapy and combinations with approved and investigational agents, such as RTK, SHP2, RAS, and/or RAF inhibitors. The first four HERKULES Phase 1b/2 clinical trials will explore both tissue agnostic and tissue specific indications in patients with solid tumors and hematologic malignancies. We dosed the first patient in HERKULES-1 in May 2021 and we expect to dose the first patient in the additional three HERKULES trials by the first quarter of 2022. We believe that as many as 4.5 million patients worldwide per year could benefit from ERAS-007 combinations that include MAPKlamp, including 4.0 million patients with blue ocean indications where there are currently limited or no approved therapies.

*Preclinical profile of ERAS-007*

Asana completed a series of preclinical studies to characterize the differentiated attributes, namely high potency and long target residence time, of ERAS-007 in vivo and in vitro. In multiple assays, ERAS-007 achieved potent, reversible, and ATP-competitive inhibition of ERK1 and ERK2 with a biochemical IC50 (a measure of 50% inhibition) against both ERK1 and ERK2 of 2 nM and cell-based mechanistic IC50 against pRSK of 7 nM. In addition, ERAS-007 exhibited long biochemical residence time while bound to ERK, which has been measured as 550 minutes against ERK2. This longer target residence time compared to other clinical-stage ERK inhibitors may allow for longer intervals between doses in patients.

| Assay Type | Assay | ERAS-007 IC50 (nM) |
|---|---|---|
| Biochemical | ERK1 | 2 |
| | ERK2 | 2 |
| Cell-based mechanistic (HT-29) | pRSK | 7 |

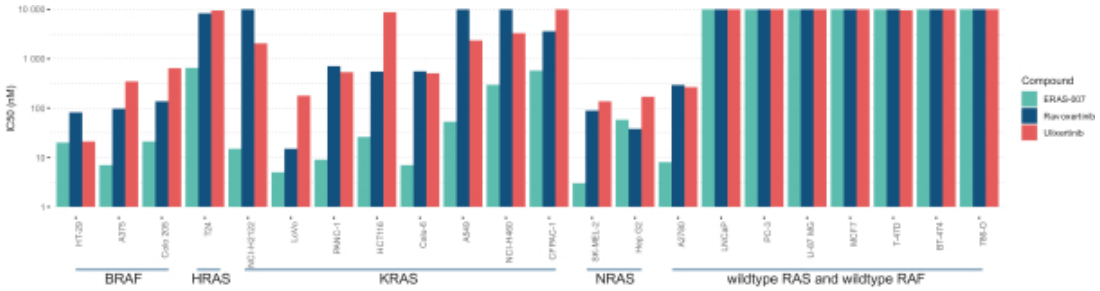
***ERAS-007 IC50s against ERK1 and ERK2 were characterized in a biochemical kinase activity. Cell-based IC50 was characterized by the ability of ERAS-007 to inhibit ERK from phosphorylating one of its downstream targets, RSK1. pRSK represents RSK1 phosphorylation.***

| Compound | $k_{off}$ ($s^{-1}$) | Residence Time (min) |
|---|---|---|
| **ERAS-007** | **$0.30 \times 10^{-4}$** | **550** |
| Ulixertinib | $10.1 \times 10^{-4}$ | 16 |
| Ravoxertinib | $13.9 \times 10^{-4}$ | 12 |

***The biochemical binding properties of three clinical-stage ERK inhibitors shown as both the rate at which each inhibitor dissociates from ERK2 ($k_{off}$) and the period of time that each ERK inhibitor binds ERK2 (residence time).***

This biochemical potency has translated into strong anti-proliferative activity in cell lines with mutations in the RAS/MAPK pathway compared to other clinical-stage ERK inhibitor compounds. In 14 out of 14 cell lines that

harbored activating RAS/MAPK pathway alterations, ERAS-007 exhibited potent activity with a less than 1 µM IC50. In two KRAS G12C cell lines, ERAS-007 showed greater potency to ulixertinib, an ERK inhibitor, comparable potency to binimetinib, a MEK inhibitor, and sotorasib, a KRAS G12C inhibitor. Cellular signaling studies demonstrated that ERAS-007 inhibited phosphorylation of downstream targets of ERK such as ribosomal S6 kinases (RSK), Fos-related antigen (FRA), and ETS domain-containing protein (ELK) in the BRAF V600E CRC HT-29 cell line. Demonstrating its selectivity, in seven out of eight cell lines that did not harbor any activating RAS/MAPK pathway alterations, ERAS-007 showed weak inhibition with a greater than 10 µM IC50. Together, these results suggest that ERAS-007 is a potent and selective ERK inhibitor with the ability to inhibit cell growth in multiple models of RAS/MAPK pathway-driven cancers relative to other agents used in these settings.



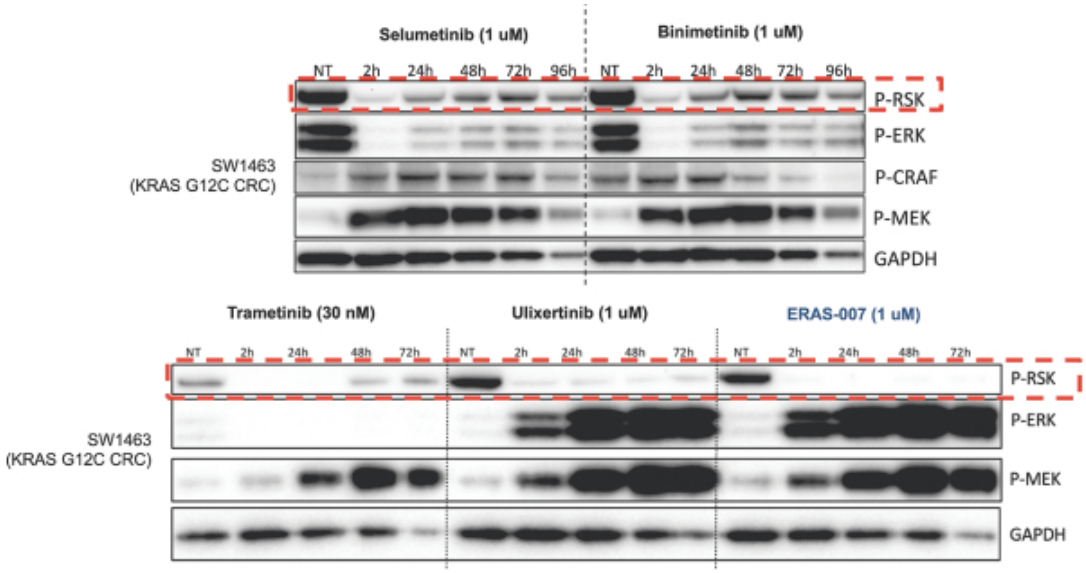

***ERAS-007, ulixertinib and ravoxertinib were profiled in 3 BRAF mutant, 1 HRAS mutant, 8 KRAS mutant, 2 NRAS mutant, and 8 wildtype RAS and wildtype RAF cell lines. Nanomolar IC50 values are represented on the y-axis. Lower IC50s denote stronger activity.***

| Compound Name | Inhibitor Class | MIA PaCA-2 IC50 (nM) | NCI-H358 IC50 (nM) |
|---|---|---|---|
| **ERAS-007** | ERKi | **7.1** | **8.2** |
| Ulixertinib | ERKi | 206.8 | 131.3 |
| Binimetinib | MEKi | 16.6 | 5.4 |
| Trametinib | MEKi | 3.4 | 0.8 |
| Sotorasib | KRAS G12Ci | 13.3 | 2.6 |

***ERAS-007 inhibits cell viability of two KRAS G12C mutant cell lines, pancreatic carcinoma MIA PaCa-2 and NSCLC NCI-H358, with higher potency than a clinical-stage ERK inhibitor, ulixertinib, and comparable potency to an approved MEK inhibitor, binimetinib, and a clinical-stage KRAS G12C inhibitor, sotorasib.***

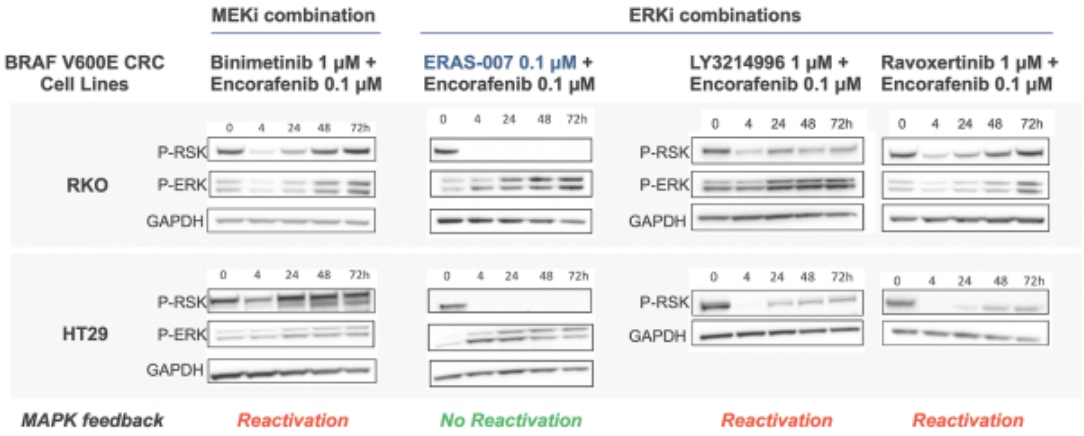
Inhibition of signaling by kinases is typically achieved by either: (1) ATP-competitive inhibition whereby an inhibitor blocks ATP binding or (2) allosteric inhibition whereby an inhibitor does not block ATP binding but rather binds to a different region to prevent the kinase from signaling downstream. Currently approved MEK inhibitors, trametinib, binimetinib, selumetinib, and cobimetinib, are allosteric MEK inhibitors. A potential limitation of these allosteric MEK inhibitors is that they preferentially bind MEK in the inactive state and have weaker inhibitory activity against activated MEK proteins. Another limitation is that some MEK inhibitors preferentially disrupt activation via one RAF family member (e.g., BRAF) but not another (e.g., CRAF). Due to negative feedback regulation in the RAS/MAPK pathway, inhibition of downstream signaling nodes can result in

RAS/MAPK pathway feedback reactivation that is mediated through multiple members of the RAF family. This increased upstream signaling pressure can serve as a resistance mechanism to MEK inhibitors and has been observed in the clinic. As an ATP-competitive ERK inhibitor, ERAS-007 has been shown to more robustly block RAS/MAPK pathway reactivation than allosteric MEK inhibitors. As shown in the figure below, ERAS-007 continuously inhibited downstream ERK activity in a KRAS G12C mutant CRC cell line, whereas the RAS/MAPK pathway was reactivated beginning as early as 24 hours after treatment with each of the three MEK inhibitors, which is illustrated with the emergence of the dark P-RSK bands (darker intensity equates to higher signaling or reactivation) in the following Western blots.




*Western blot characterization of three MEK inhibitors (selumetinib, binimetinib, and trametinib) and two ERK inhibitors (ulixertinib and ERAS-007) in the KRAS G12C mutant CRC cell line SW1463. The phosphorylation states of RSK (P-RSK), ERK (P-ERK), CRAF (P-CRAF) and MEK (P-MEK) are shown. Band intensity indicates level of phosphorylation. Total GAPDH (GAPDH), a housekeeping gene, is used as a protein loading control. Times, in hours, represent the duration of compound incubation. NT means "no treatment," and this sample serves as a negative control. The level of P-RSK, highlighted in dotted red rectangles, indicates ERK signaling activity. The absence of a P-RSK band indicates inhibition of ERK signaling activity and thereby inhibition of RAS/MAPK pathway signaling.*

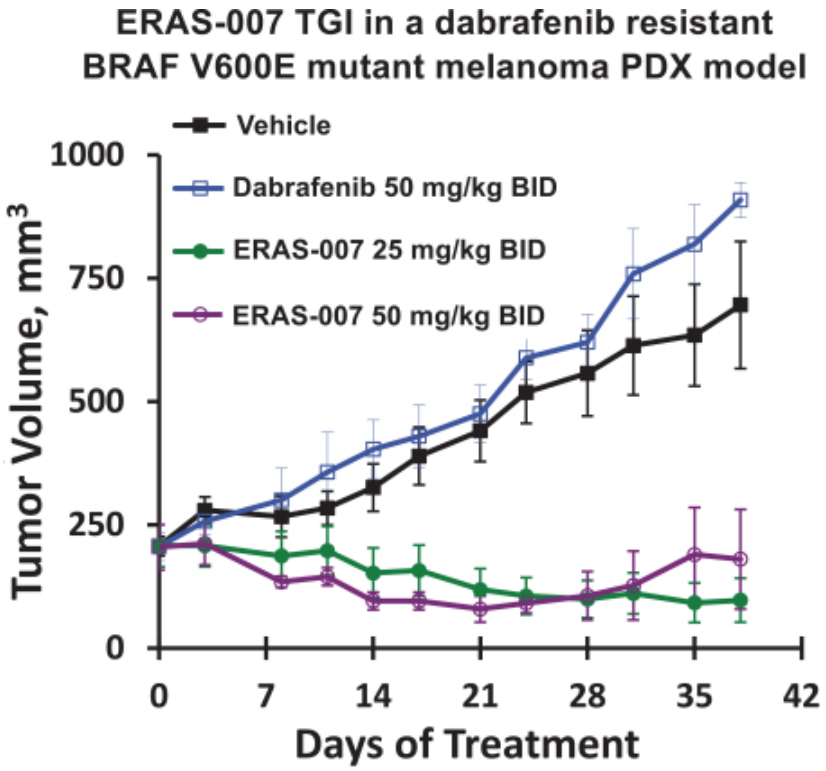
In BRAF V600E colorectal cell lines, ERAS-007 also blocked the RAS/MAPK pathway feedback reactivation observed with MEK or other ERK plus BRAF inhibitor combinations at one-tenth the concentration used for the MEK and other ERK inhibitors. These results provide further support that inhibition of ERK by ERAS-007 may lead to more complete and durable blockade of the RAS/MAPK pathway relative to other inhibitors of ERK or MEK, either alone or in combination.




*Treatment of two BRAF V600E mutant CRC cell lines, RKO and HT-29, with encorafenib in combination with the MEK inhibitor binimetinib, the ERK inhibitor ERAS-007, the ERK inhibitor LY3214996, and the ERK inhibitor ravoxertinib. The Western blot gels depict phosphorylation of RSK (P-RSK) and ERK (P-ERK). Higher levels of phosphorylation are depicted by higher (i.e., darker) band intensity. Total GAPDH protein (GAPDH) serves as a loading control. ERK signaling activity is represented by the phosphorylation state of RSK (P-RSK), which is a downstream target of ERK. The column values indicate the duration of compound incubation of up to 72 hours.*

To explore ERAS-007 activity in vivo, we measured tumor growth inhibition (TGI) in a melanoma patient-derived xenograft (PDX) model resistant to BRAF and MEK inhibitors. Whereas treatment with dabrafenib, a BRAF inhibitor, and vehicle showed similar tumor growth trajectories, ERAS-007 significantly inhibited tumor growth at the end of the 38-day treatment period at both 25 mg/kg BID (p-value < 0.001) and 50 mg/kg BID (p-value < 0.01). These data suggest ERAS-007 may be more potent than BRAF or MEK inhibitors in achieving inhibition of the RAS/MAPK pathway and may be able to overcome treatment resistance.

A p-value is the probability that the reported result was achieved purely by chance, such that a p-value of less than or equal to 0.05 means that there is a less than or equal to 5% probability that the difference between the control group and the treatment group is purely due to chance. A p-value of 0.05 or less typically represents a statistically significant result. The FDA's evidentiary standard of efficacy when evaluating the results of a clinical trial generally relies on a p-value of less than or equal to 0.05.

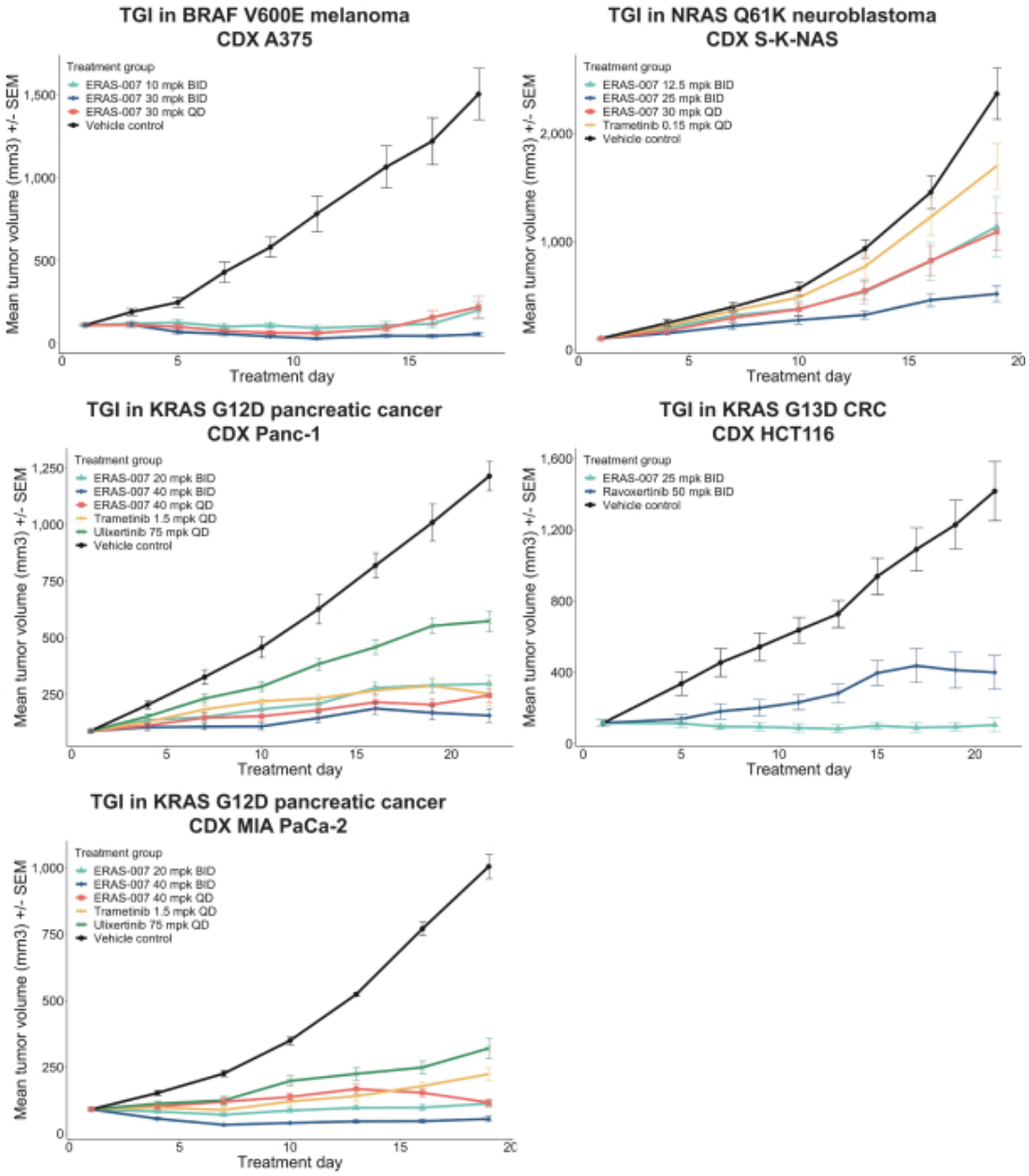



*ERAS-007 shows significant tumor growth inhibition (TGI) relative to vehicle control at both 25 mg/kg BID (p-value < 0.001) and 50 mg/kg BID (p-value < 0.01) in a dabrafenib resistant melanoma PDX model.*

*Preclinical anti-tumor activity of ERAS-007*

We further showed the breadth of ERAS-007 in vivo activity in CRC, NSCLC, pancreatic cancer, melanoma, and neuroblastoma models harboring alterations in the BRAF, NRAS, or KRAS nodes of the RAS/MAPK pathway. In the BRAF V600E mutant melanoma cell line-derived xenograft (CDX) A375 model, ERAS-007 showed dose-dependent tumor inhibition with a maximal 104% TGI at 30 mg/kg BID (p-value < 0.001 across all ERAS-007 doses relative to vehicle control). In the NRAS Q61K mutant neuroblastoma CDX SK-N-AS model, ERAS-007 showed dose-dependent tumor inhibition with a maximal 82% TGI at 25 mg/kg BID (p-value < 0.001 across all ERAS-007 doses relative to vehicle control). In the KRAS G12D pancreatic CDX Panc-1 model, ERAS-007 showed dose-dependent TGI with a maximal 94% TGI at 40 mg/kg BID (p-value < 0.001 across all ERAS-007 doses

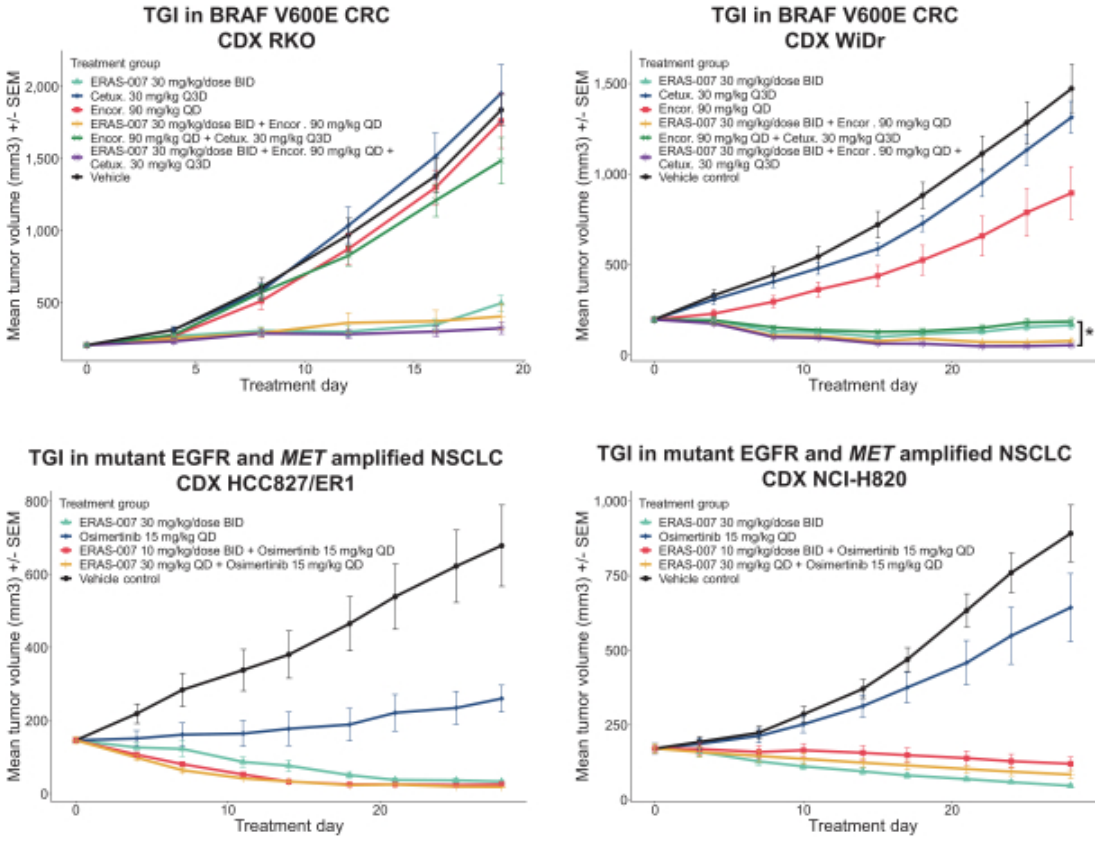
relative to vehicle control). In the KRAS G13D CRC CDX HCT116 model, ERAS-007 showed 101% TGI at 25 mg/kg BID (p-value < 0.001 relative to vehicle control). ERAS-007 showed superior TGI to ulixertinib at 75 mg/kg QD in Panc-1 and MIA PaCa-2 at doses ranging from 20 mg/kg BID to 40 mg/kg BID.




***ERAS-007 showed significant TGI in pancreatic cancer, CRC, melanoma, and neuroblastoma CDX models at doses ranging from as low as 10 mg/kg BID (p-value < 0.001). At doses ranging from 20 mg/kg BID to 40 mg/kg BID, ERAS-007 showed superior TGI to a clinical-stage ERK inhibitor, ulixertinib, at 75 mg/kg***

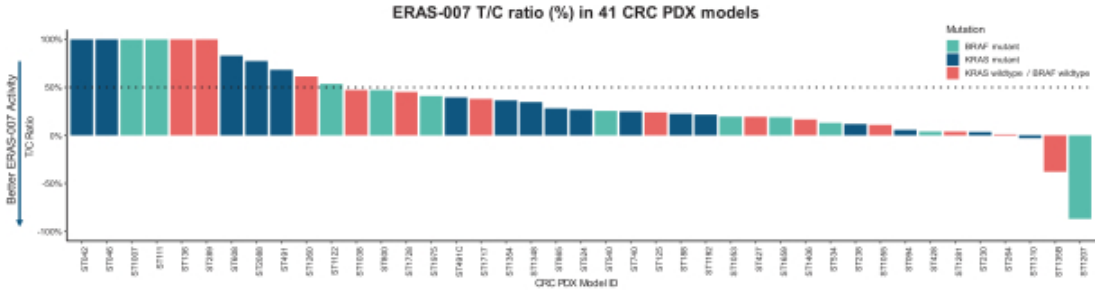
***QD, in pancreatic cancer Panc-1 and MIA PaCa-2 CDX models. ERAS-007 at 25 mg/kg BID also showed superior TGI to ravoxertinib at 50 mg/kg BID in the CRC HCT-116 CDX model. Relative to trametinib at 1.5 mg/kg QD, ERAS-007 showed superior TGI in the MIA PaCA-2 CDX model at doses ranging from 20 mg/kg BID to 40 mg/kg BID and in the pancreatic cancer CDX Panc-1 at 40 mg/kg BID. In the neuroblastoma S-K-NAS model, ERAS-007 showed superior TGI at doses as low as 12.5 mg/kg BID to trametinib at 0.15 mg/kg QD. Error bars represent standard error of the mean (SEM).***

ERAS-007 showed statistically significant tumor growth inhibition in both BRAF V600E CRC and mutant EGFR NSCLC CDX models as a monotherapy and in combination with standard of care targeted therapies. In the BRAF V600E CRC CDX model RKO, ERAS-007 exhibited 82% TGI as a monotherapy (p-value < 0.001), 88% TGI in combination with encorafenib (p-value < 0.001) and 93% TGI in combination with encorafenib and cetuximab (p-value < 0.001). In the BRAF V600E CRC CDX model WiDr, ERAS-007 exhibited 102% TGI as a monotherapy (p-value < 0.001), 109% TGI in combination with encorafenib (p-value < 0.001), and 111% TGI in combination with encorafenib and cetuximab (p-value < 0.001). Indicated with an asterisk in the graphic, both ERAS-007 combinations achieved statistically significant TGI relative to either the encorafenib and cetuximab combination or ERAS-007 monotherapy (p-values < 0.01). In the EGFR exon 19 deletion and MET amplified CDX HCC827/ER1, ERAS-007 achieved 121% TGI as a monotherapy (p-value < 0.001), 123% in combination with osimertinib at 10 mg/kg BID (p-value <0.001), and 124% TGI in combination with osimertinib at 30 mg/kg QD (p-value < 0.001). In the EGFR exon 19 deletion, EGFR T790M, and MET amplified CDX NCI-H820, ERAS-007 achieved 117% TGI as monotherapy (p-value < 0.001), 107% TGI in combination with osimertinib at 10 mg/kg BID (p-value < 0.001), and 112% TGI in combination with osimertinib at 30 mg/kg QD (p-value < 0.001).



***ERAS-007 was profiled in two BRAF V600E CRC CDX models, RKO, which was insensitive to encorafenib and cetuximab treatment, and WiDr, which was sensitive to encorafenib and cetuximab treatment. In both models, ERAS-007 combinations showed superior TGI to encorafenib (Encor.) and cetuximab (Cetux.) monotherapies and to the encorafenib and cetuximab combination (p-value < 0.01). The asterisk in the WiDr graphic indicates that the TGIs of the ERAS-007 combinations relative to either the encorafenib and cetuximab combination or ERAS-007 monotherapy was statistically significant (p-value < 0.01). In two osimertinib-resistant mutant EGFR NSCLC CDX models, HCC827/ER1 and NCI-H820, ERAS-007 showed superior TGI to osimertinib monotherapy both as a single agent and in combination with osimertinib (p-value < 0.001).***

In a panel of 41 CRC PDX models, which include the most common genetic alterations in CRC, ERAS-007 inhibited tumor growth by greater than 50% relative to untreated tumors in 30 out of the 41 CRC PDX models (73%). ERAS-007's inhibitory activity was observed in 71% of KRAS mutant models (n=17 total), 73% of BRAF models (n=11 total), and 77% of KRAS wildtype and BRAF wildtype models (n=13 total). Together, these in vivo results suggest ERAS-007 exhibits strong single agent anti-tumor activity across a wide range of tumors with alterations in BRAF and KRAS relative to other agents in use today.




***ERAS-007 inhibited tumor growth by greater than 50% in 73% of CRC PDX tumor models. The T/C (treated/control) ratio is calculated as the ratio of mean volume of ERAS-007 treated tumors to mean volume of untreated tumors in the control group. Lower values represent better tumor growth inhibition.***

*Phase 1 trial of single agent ERAS-007 in patients with advanced solid tumors*

Asana completed a Phase 1 first-in-human clinical trial (ASN007-101) that evaluated the safety, tolerability, PK, pharmacodynamics (PD), and preliminary anti-tumor activity of ERAS-007 in patients with advanced cancers. Forty-nine patients were enrolled and administered ERAS-007 QD (17 patients) or QW (32 patients). Following dose escalation using both schedules, the recommended dose (RD) of 250 mg QW was selected. The maximum tolerated dose (MTD) on a daily schedule was 40 mg QD.

*Phase 1 safety and tolerability*

ERAS-007 showed a reversible and manageable adverse event profile, consistent with other RAS/MAPK-pathway inhibitors (e.g., MEK inhibitors), as shown in the table below.

| System Organ Class / Preferred Term | Treatment-Related Adverse Events | | | |
|---|---|---|---|---|
| | Once Daily Schedule (10-80 mg QD) N=17 | | Once Weekly Schedule (80-350 mg QW) N=32 | |
| | All (%) | Gr ≥3 (%) | All (%) | Gr ≥3 (%) |
| **Gastro-Intestinal** | | | | |
| Diarrhea | 7 (41) | - | 19 (59) | 4 (13) |
| Nausea | 6 (35) | - | 20 (63) | - |
| Vomiting | 5 (29) | - | 18 (56) | 3 (9) |
| **Skin** | | | | |
| Rash – acneiform | 7 (41) | - | 7 (22) | - |
| Rash – maculopapular | 3 (18) | 2 (12) | 7 (22) | 1 (3) |
| Rash | 6 (35) | 1 (6) | 3 (9) | - |
| **Eye** | | | | |
| Chorioretinopathy | 5 (29) | - | 6 (19) | - |
| Blurred vision | 1 (6) | - | 8 (25) | - |

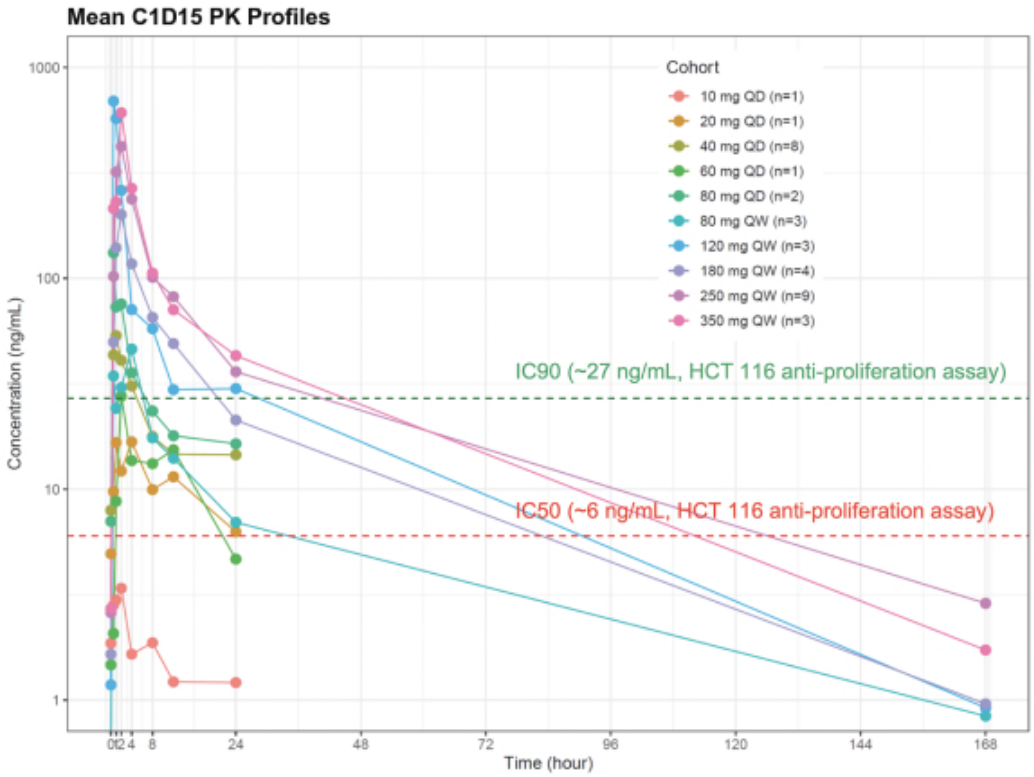
Overall, QW dosing was better tolerated at doses up to 250 mg QW than 40 mg for the QD dosing. The ERAS-007 QW dosing schedule was better tolerated than QD dosing based on the treatment-related adverse events (TRAEs) reported. Transient nausea and vomiting observed with QW dosing were manageable. Skin toxicities have been noted as a class effect of inhibitors of RAF, MEK, or ERK. Less skin toxicity was observed with QW dosing of ERAS-007 compared to QD dosing. Ophthalmic toxicities have been observed during treatment with MEK targeted agents and occur with ERK inhibitors, and reversible retinopathy is a well-known MEK/ERK inhibitor class effect.

The ERAS-007 250 mg QW RD was well tolerated with minimal grade 3 and no grade 4 or 5 TRAEs, as shown in the table below. No grade 3 or higher eye toxicity was observed at this dose. We believe these safety results and QW dosing support combination strategies in our ERAS-007 clinical development plan.

| System Organ Class / Preferred Term | Treatment-Related Adverse Events 250 mg Once Weekly Schedule N=13 | | | | |
|---|---|---|---|---|---|
| | All (%) | Gr 1 (%) | Gr 2 (%) | Gr 3 (%) | Gr ≥4 (%) |
| **Gastro-Intestinal** | | | | | |
| Diarrhea | 10 (77) | 6 (46) | 4 (31) | - | - |
| Nausea | 8 (62) | 5 (38) | 3 (23) | - | - |
| Vomiting | 5 (38) | 1 (8) | 2 (15) | 2 (15) | - |
| **Skin** | | | | | |
| Rash – acneiform | 3 (23) | 2 (15) | 1 (8) | - | - |
| Rash – maculopapular | 5 (38) | 2 (15) | 2 (15) | 1 (8) | - |
| Rash | 1 (8) | - | 1 (8) | - | - |
| **Eye** | | | | | |
| Chorioretinopathy | - | - | - | - | - |
| Blurred vision | 6 (46) | 3 (23) | 3 (23) | - | - |

*Phase 1 pharmacokinetics*

ERAS-007 exhibited relatively fast absorption, with peak plasma concentration ($C_{max}$) achieved at median time ($T_{max}$) ranging from approximately 1-4 hours post-dose. PK exposure as measured by $C_{max}$ and AUC increased in a dose-dependent manner. Mean terminal half-life following QW dosing ranged from 29.8 to 37.9 hours. No significant accumulation was observed following QW dosing. Following 250 mg QW dosing, the mean average concentration ($C_{avg}$) at Cycle 1 Day 15 (C1D15) exceeded the anti-proliferative IC90 determined in human cancer cell line HCT116 that harbors the KRAS mutation, and the mean trough concentration at the end of dosing interval ($C_{min}$) was slightly below the corresponding IC50.



As shown in the table below, the ERAS-007 Phase 1 data suggest that intermittent QW dosing is preferable to QD dosing. The duration of time in which mean concentration was above IC90 (%T>IC90), which correlates with tumor cell killing, was substantially longer for 250 mg QW (~29%) compared to 40 mg QD (~17%). The lower $C_{min}$ for 250 mg QW, compared to 40 mg QD, allows more time for RAS/MAPK pathway recovery, which gives normal cells a treatment break during each dosing interval.

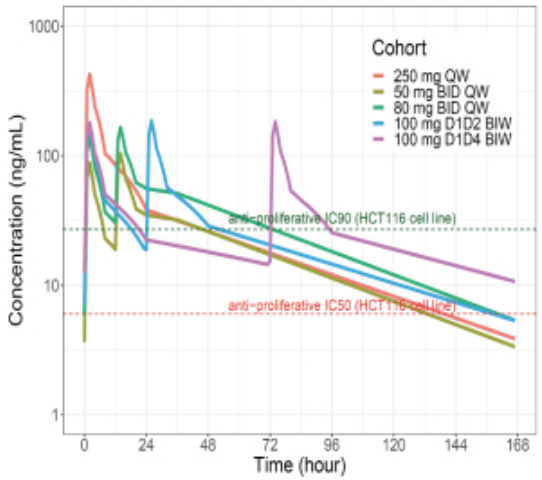
**Mean Steady State PK Parameters (%CV)**

| Cohort | Cmax, ng/mL | Cavg, ng/mL | Cmin, ng/mL | T>IC90* |
|---|---|---|---|---|
| 40 mg QD (n=8) | 61 (54%) | 19 (39%) | 15 (100%) | ~ 17% |
| 250 mg QW (n=9) | 495 (42%) | 33 (73%) | 3.5 (96%) | ~ 29% |

* IC90 based on HCT 116 anti-proliferation assay

*Optimizing dosing and scheduling*

The observed long biochemical residence time of ERAS-007 bound to ERK (greater than 9 hours) and the observed human half-life (approximately 30 hours) offer flexibility in optimizing the dosing schedule. While the QW schedule of ERAS-007 demonstrated clinical activity with an acceptable adverse event profile, our exploratory PK/PD analyses suggest that increasing duration of exposure above IC90 (which increases tumor cell killing) may drive anti-tumor activity, and that maintaining $C_{min}$ near or below IC50 (which allows normal cells to recover) may improve safety and tolerability. Informed by the clinical data observed from the Phase 1 trial, we conducted PK simulations (projections based on the data) to explore alternative dosing regimens to provide additional flexibility for combinations with ERAS-601 (together, our first MAPKlamp) and other agents, as shown in the figure and table below.



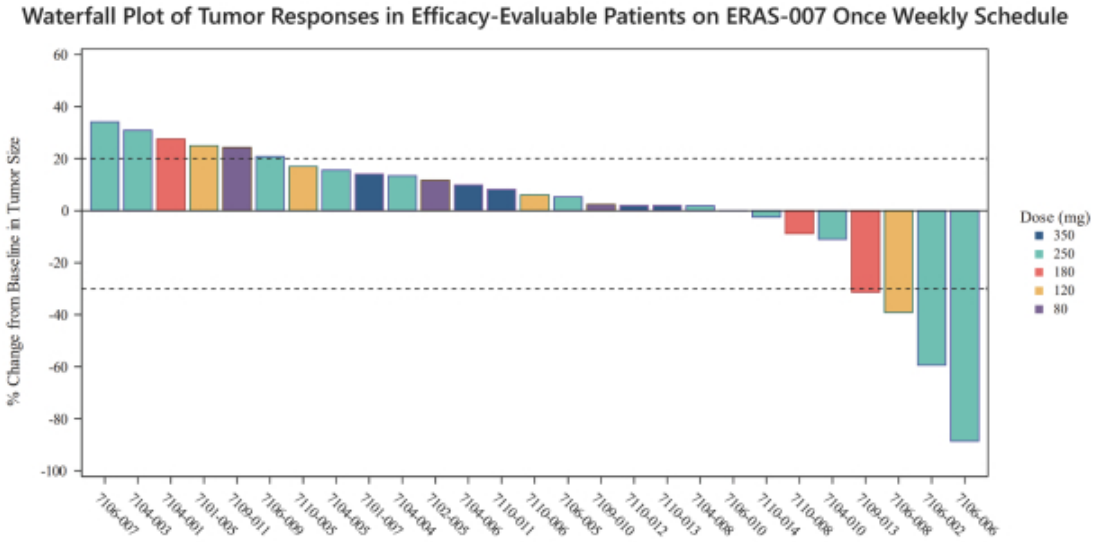

| Dosing Regimen | Cmax, ng/mL | Cmin, ng/mL | T>IC90 | T<IC50 |
|---|---|---|---|---|
| 250 mg QW | 425 | 4 | ~2/7 | ~1/7 |
| 50 mg BID QW | 103 | 3 | ~2/7 | ~1/7 |
| 80 mg BID QW | 165 | 5 | ~3/7 | ~0.5/7 |
| 100 mg D1D2 BIW | 186 | 5 | ~2/7 | ~0.5/7 |
| 100 mg D1D4 BIW | 183 | 11 | ~2/7 | 0 |

The PK simulations suggest that the dosing regimen of twice daily on day 1 of each week (BID-QW) may potentially provide a meaningful extension of the duration of the PK exposure above the IC90 beyond what has been achieved with 250 mg QW to improve cancer cell killing, while still maintaining $C_{min}$ near or below the IC50, to give normal cells a treatment break during each dosing interval. Therefore, in the Phase 1b/2 trial of

ERAS-007 in patients with advanced or metastatic cancers (HERKULES-1, described below), we plan to evaluate this BID-QW dosing schedule in the dose escalation cohort, in addition to the 250 mg QW expansion cohort.

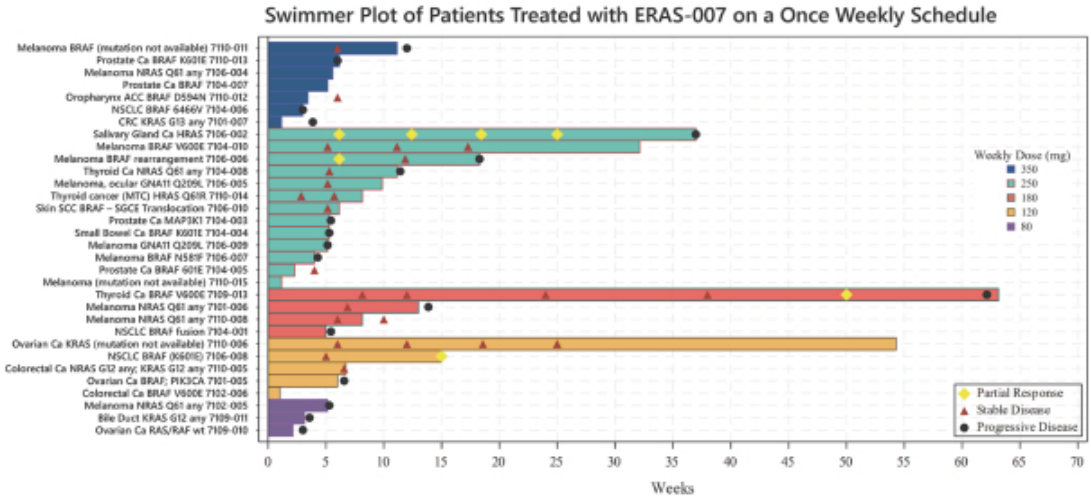
*Phase 1 clinical activity*

Objective tumor responses and durable disease control of ERAS-007 were observed in diverse tumor types at doses ranging from 120 to 250 mg QW in patients with BRAF-, HRAS-, and NRAS-driven cancers. As of the December 21, 2020 data cutoff, the waterfall plot below illustrates the objective responses seen in all patients who had received at least one dose of ERAS-007 and underwent at least one tumor assessment (the efficacy-evaluable patients). Four responses were observed in patients with BRAF V600E thyroid cancer (180 mg QW), BRAF K601E NSCLC (120 mg QW), HRAS salivary gland cancer (250 mg QW), and BRAF rearranged melanoma (250 mg QW).

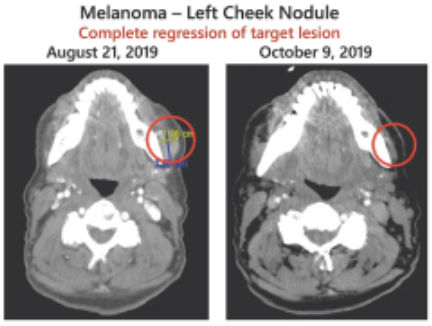



*"% Change from Baseline in Tumor Size" is defined as the maximum reduction in the sum of tumor diameters of selected target lesions measured after a patient started on study treatment compared to the baseline measurements of the same target lesions before study treatment was started. "Efficacy-Evaluable" is defined as patients who have a baseline tumor scan and at least one post-baseline scan after starting study treatment, to allow assessment of tumor response. Prior treatments in patients with objective responses included: HRAS salivary gland—radiation; BRAF rearranged melanoma—nivolumab/ipilimumab, radiation; BRAF V600E thyroid—radiation; BRAF K601E NSCLC—carboplatin/pemetrexed, carboplatin/paclitaxel plus durvalumab. The dashed lines represent the RECIST-defined definitions of response (30% decrease) or progression (20% increase) in tumor size.*

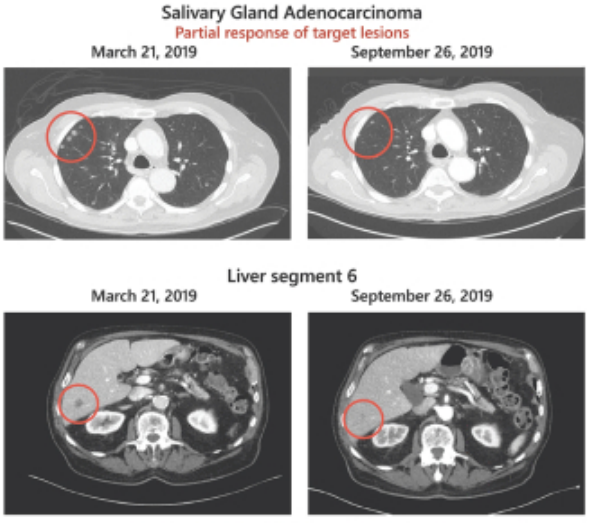
As of the December 21, 2020 data cutoff, the swimmer plot below demonstrated encouraging duration of treatment, with three patients who achieved disease control that exceeded one year. One patient with BRAF V600E melanoma (7104-010) received ERAS-007 for a total of 71 weeks before experiencing disease progression, first on the ASN007-101 clinical trial (shown in this swimmer plot) and subsequently on a single patient IND (not shown in this swimmer plot), since the patient was deriving clinical benefit at the time the ASN007-101 trial had completed.




Examples of single agent activity of ERAS-007 from these responses in patients with melanoma and salivary gland adenocarcinoma are shown in the scan images below. On the left, a patient with a BRAF rearranged melanoma, who had prior progression on nivolumab/ipilimumab, showed complete regression of the target lesion. On the right, a patient with HRAS salivary gland cancer showed partial response of target lesions.




- Melanoma – BRAF rearrangement
- Prior progression on nivolumab/ipilimumab
- 250 mg QW starting dose




- Salivary Gland Adenocarcinoma - HRAS
- Prior radiotherapy – 7,500 cGy total
- 250 mg QW starting dose

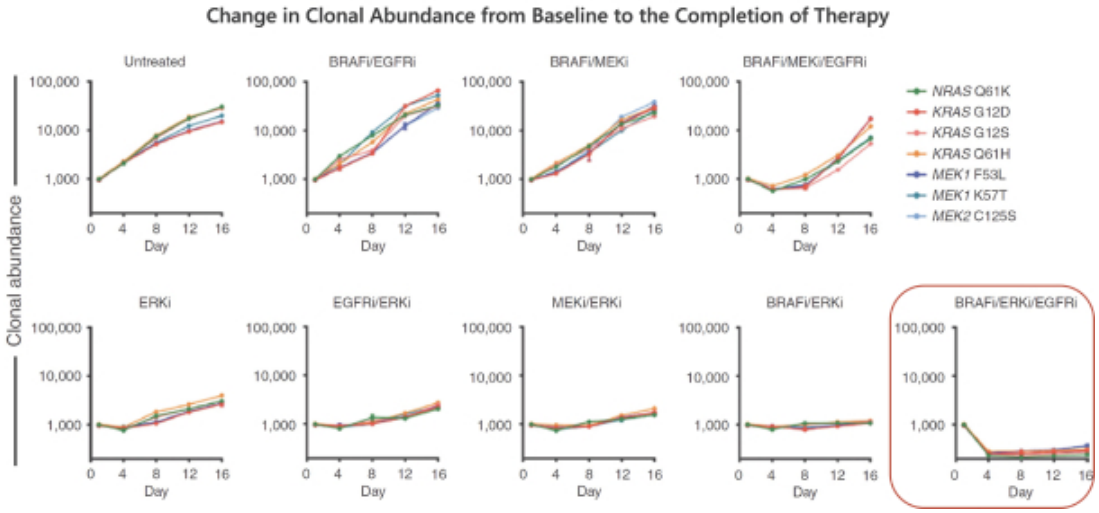
*Rationale for combining with other targeted agents*

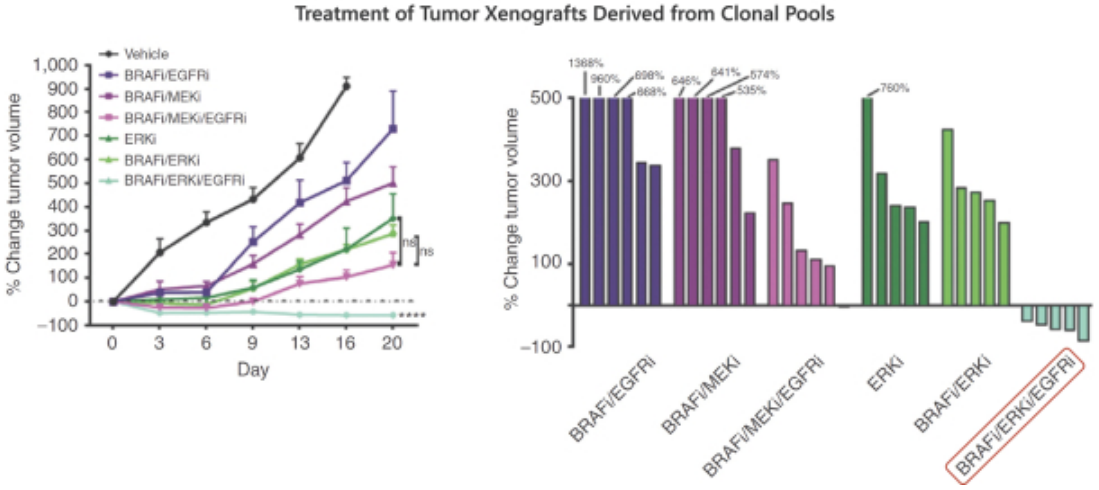
Since ERK is the most distal node of the RAS/MAPK pathway and activates hundreds to thousands of downstream proteins, we believe an ERK inhibitor is an attractive combination partner to achieve maximal inhibition of the RAS/MAPK pathway. In combination with RTK, SHP2, RAS, and/or RAF inhibitors, an ERK inhibitor has the potential to further inhibit RAS/MAPK pathway signaling and delay development of resistance.

The RAS/MAPK pathway is regulated by negative feedback mechanisms that desensitize the pathway when active. In the presence of a RAS/MAPK pathway inhibitor, pathway signaling activity is reduced, alleviating negative feedback mechanisms and sensitizing the RAS/MAPK pathway to upstream signaling. This sensitization can prevent RAS/MAPK pathway inhibitors from achieving therapeutic levels of pathway inhibition. Another challenge for RAS/MAPK pathway inhibitors is the activation of RTKs that can generate sufficient upstream RAS/MAPK pathway signaling pressure that overwhelms RAS/MAPK pathway inhibitors. Combining upstream RAS/MAPK pathway inhibitors with an ERK inhibitor can potentially enable pathway inhibition in the absence of negative feedback and in the presence of additional upstream signaling pressure. The activity of RAS/MAPK pathway inhibitors can also be bypassed by the emergence of activating mutations in RAS/MAPK pathway proteins that lie downstream. For example, activating mutations in RAS can emerge as a resistance mechanism against EGFR inhibitors in mutant EGFR NSCLC, and MEK mutations can develop as a resistance mechanism against BRAF plus MEK inhibitors in melanoma. As the most distal node of the RAS/MAPK pathway, ERK inhibition can help address activating RAS, RAF, or MEK mutations that can act as resistance mechanisms to RAS/MAPK pathway inhibitors.

*BRAF V600E CRC as an example that ERK inhibition can reduce the emergence of resistance*

While the combination of a BRAF inhibitor and an EGFR inhibitor (encorafenib plus cetuximab) has been approved for the second- and third-line treatment of BRAF V600E CRC, only 20% of patients experience an objective response, and only half of these responses last more than 4 months. Therefore, emergence of resistance is a major therapeutic barrier to long-term clinical benefit. Analysis of post-progression biopsies and cell-free DNA samples revealed a heterogeneous collection of resistance mutations in the RAS/MAPK pathway, including KRAS, NRAS, MEK1, and MEK2. A set of experiments conducted by Asana and Massachusetts General Hospital modeled this clinical resistance in a pooled clone model system and xenograft models. Seven different resistant BRAF V600E CRC cells, each engineered with one of these resistance mutations, were introduced at 1% allele frequency into a pool of sensitive BRAF V600E CRC cells. Of all combination therapies evaluated, a triple blockade of BRAF, EGFR, and ERK (identified with a red box around the image below) proved to be the most effective in reducing tumor volume and preventing the emergence of resistance clones.






These data suggest that: (1) in tumors that are highly addicted to the RAS/MAPK pathway, such as BRAF V600E CRC, resistance mechanisms are dominated by reactivation of this critical pathway via mutations within the pathway, and (2) an ERK inhibitor can potentially overcome these resistance mechanisms by blocking the terminal node of the pathway. Therefore, ERAS-007 may be combined with other RAS/MAPK pathway inhibitors (e.g., KRAS G12C inhibitor and BRAF inhibitor) as either initial therapy or in the post-progression setting in patients who have been treated with RAS/MAPK pathway inhibitors.

*Development strategy for ERAS-007*

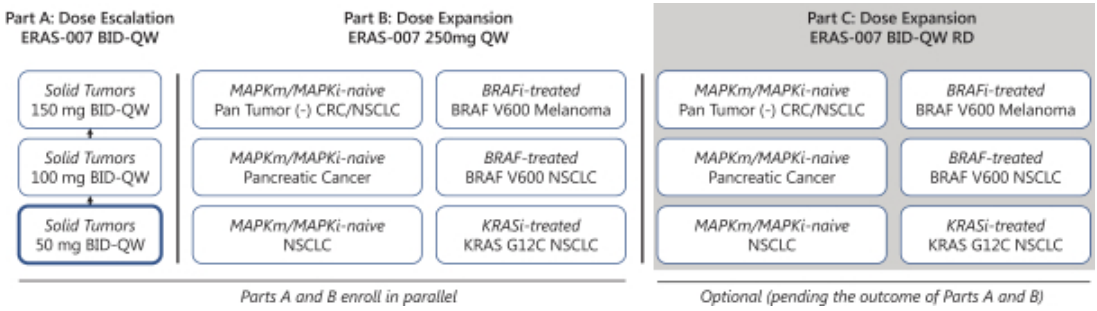
We are pursuing a broad clinical development plan for ERAS-007 across multiple tumor types that will include both monotherapy and combinations with approved and investigational agents. The first series of trials will be four POC trials in solid tumors, NSCLC, CRC, and AML. While providing POC data, these trials may be expanded to enable potential accelerated approvals in their respective indications:

1. **HERKULES-1** for a potential tissue agnostic indication in solid tumors with RAS/MAPK pathway alterations
2. **HERKULES-2** for EGFR mutant or KRAS mutant NSCLC
3. **HERKULES-3** for KRAS mutant, NRAS mutant, or BRAF V600E CRC initially, with potential to subsequently expand to other CRC populations
4. **HERKULES-4** for FLT3 mutant AML

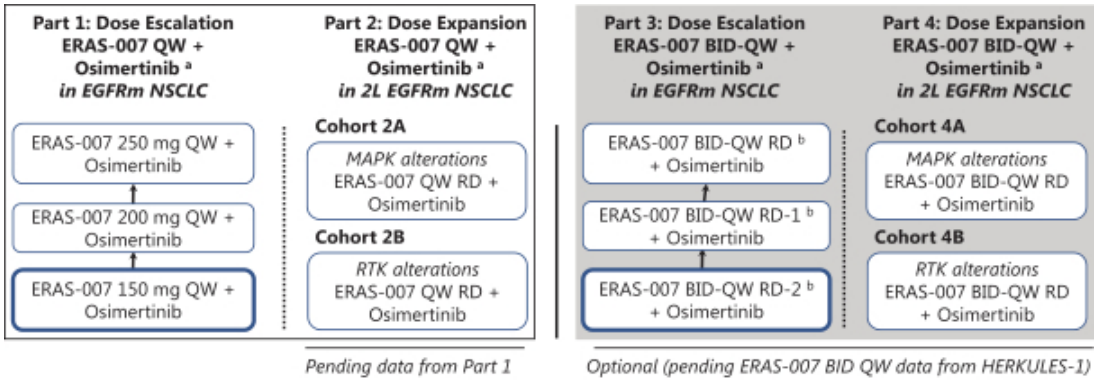
We anticipate one or multiple Phase 1b data readout(s) from our HERKULES studies in 2022.

As shown in the schema below, **HERKULES-1** is a Phase 1b/2 trial evaluating ERAS-007 monotherapy in patients with solid tumors. In **Part A**, a dose-finding portion will determine the maximum tolerated dose and recommended dose when ERAS-007 is given twice-daily on day 1 of each week (BID-QW), the rationale of which was described earlier in the Phase 1 PK pharmacokinetics section. The primary endpoint of this part is to characterize the safety profile of ERAS-007 when given on a BID-QW schedule. Testing this alternative intermittent dosing schedule will provide us with three schedules (daily, weekly, and twice a day weekly) from which to select the optimal dose and schedule to combine with ERAS-601 (our first MAPKlamp) and other agents. When the ERAS-601 recommended dose is identified from the FLAGSHP-1 trial (described below), we expect to amend the HERKULES-1 trial protocol to identify the optimal dose and schedule for the ERAS-007 and ERAS-601 combination and to evaluate the preliminary efficacy and safety of this MAPKlamp in multiple tumor types. In **Part B**, which will run in parallel with Part A (since monotherapy responses were observed with the

weekly schedule in the completed Phase 1 clinical trial of ERAS-007), separate cohorts will evaluate ERAS-007 weekly in patients with NSCLC, pancreatic cancer, melanoma, and other solid tumors that harbor RAS/MAPK pathway alterations. These patient populations have high unmet medical needs, as they would have exhausted all approved therapies. Patients in some cohorts will not have been previously treated with any RAS/MAPK pathway inhibitors (e.g., KRAS, BRAF, or MEK inhibitors), since none of these inhibitors are approved for use in these patients. Patients in other cohorts will have been previously treated with RAS/MAPK pathway inhibitors if these agents are part of standard of care. The primary endpoint is an assessment of anti-tumor activity of ERAS-007 in the patient populations. We dosed the first patient in **HERKULES-1** in May 2021.



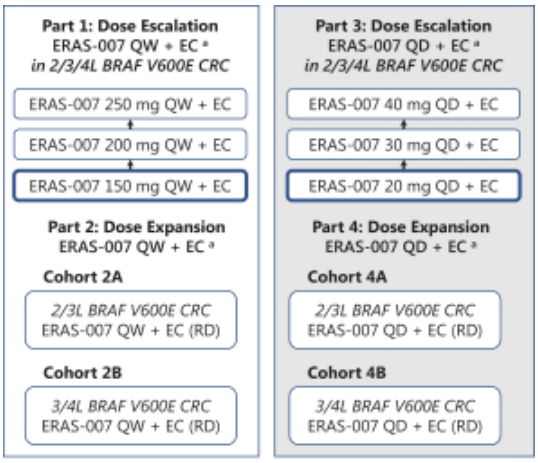
As shown in the schema below, **HERKULES-2** is a Phase 1b/2 trial that will evaluate ERAS-007 in combination with osimertinib in patients with EGFR mutant NSCLC, which represents 15% of all patients with NSCLC, or approximately 184,000 new patients worldwide each year. The standard of care for newly diagnosed patients with metastatic disease is osimertinib, an EGFR inhibitor. While 77% of patients respond initially, nearly all patients experience disease progression while on osimertinib treatment, and no other targeted therapy is approved in the post-osimertinib setting. Biomarker analyses of tumors that developed resistance to osimertinib showed that RAS/MAPK pathway alterations make up a substantial portion of resistance mechanisms. With the ERAS-007 plus osimertinib combination, we will evaluate in this trial whether combined ERK and EGFR inhibition can overcome osimertinib resistance in EGFR mutant NSCLC with RAS/MAPK pathway alterations. In **Part 1**, an ERAS-007 weekly recommended dose will be identified in combination with osimertinib. The primary endpoint will be a safety assessment of this combination. In **Part 2**, this combination regimen will be evaluated in second-line EGFR mutant NSCLC patients who have progressed on first-line osimertinib monotherapy. The primary endpoint will be an assessment of anti-tumor activity. Part 3 will identify the RD of ERAS-007 on a BID-QW schedule in combination with osimertinib, with a safety assessment as the primary endpoint. Part 4 will evaluate this combination with BID-QW schedule in a larger patient population, with a preliminary assessment of anti-tumor activity as the primary endpoint. When the optimal dose and schedule for our first MAPKlamp combination (ERAS-007 plus ERAS-601) have been identified in the HERKULES-1 trial, this combination will be introduced into the HERKULES-2 trial to evaluate MAPKlamp plus osimertinib in EGFR mutant NSCLC. We expect to dose the first patient in **HERKULES-2** in the third quarter of 2021.




[a] Osimertinib 80 mg PO QD.
[b] BID-QW RD: monotherapy recommended dose given twice on a single day every week. RD-1 or RD-2: one or two dose levels below RD.

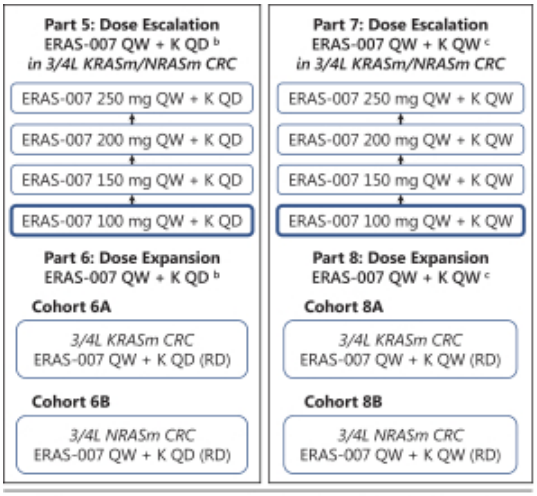
As shown in the schema below, **HERKULES-3** is a Phase 1b/2 trial that will evaluate ERAS-007 in RAS and RAF mutation-defined CRC patient populations. ERAS-007 in combination with a CDK4/6 inhibitor will be evaluated in patients with KRAS mutant and NRAS mutant CRC, which represents approximately 50% of all patients with CRC, or 830,000 new patients worldwide each year. ERAS-007 in combination with encorafenib and cetuximab will be evaluated in patients with BRAF V600E CRC, which represents nearly 10% of all patients with CRC, or 153,000 new patients worldwide each year. The standard of care for KRAS mutant and NRAS mutant CRC in the third-/fourth-line metastatic setting is typically either single agent chemotherapy or targeted therapy, in which less than 10% of patients respond, nearly all patients experience disease progression, and median overall survival is less than 10 months. The standard of care for patients with BRAF V600E CRC in the second-/third-line metastatic setting is encorafenib plus cetuximab, an anti-BRAF and anti-EGFR doublet therapy. Only 20% of patients respond, nearly all patients experience disease progression, and the median overall survival is less than 9 months. The prognosis for patients in the post-encorafenib plus cetuximab setting is worse. In preclinical models of BRAF V600E CRC, the addition of an ERK inhibitor to BRAF inhibitor plus EGFR inhibitor substantially enhanced anti-tumor activity and

reduced the development of resistance to BRAF inhibitor plus EGFR inhibitor. In **Part 1** of this trial, an ERAS-007 weekly recommended dose will be identified in combination with encorafenib plus cetuximab, with a safety assessment of the combination as the primary endpoint. In **Part 2**, the recommended dose of the triplet regimen from Part 1 will be evaluated in two patient populations: second-/third-line BRAF V600E CRC and third-/fourth-line BRAF V600E CRC. The primary endpoint will be an assessment of anti-tumor activity. **Parts 3** and **4** contain optional cohorts that would allow us to evaluate alternative schedules of ERAS-007 in combination with encorafenib and cetuximab, depending on the results from Parts 1 and 2. In **Parts 5** and **7,** an ERAS-007 weekly recommended dose will be identified in combination with a CDK4/6 inhibitor on a continuous or intermittent schedule, respectively. The primary endpoint will be an assessment of safety. In **Parts 6** and **8**, these combination regimens at their recommended doses may be further evaluated in patients with third-/fourth-line KRAS mutant or NRAS mutant CRC. The primary endpoint will be an assessment of anti-tumor activity. When the optimal dose and schedule for our first MAPKlamp combination (ERAS-007 plus ERAS-601) have been identified in the HERKULES-1 trial, this combination will be introduced into the HERKULES-3 trial to evaluate MAPKlamp plus encorafenib and cetuximab or MAPKlamp plus a CDK4/6 inhibitor in BRAF V600E CRC or KRAS/NRAS mutant CRC, respectively. We expect to dose the first patient in **HERKULES-3** in the second half of 2021.




*Part 3 may open after review of data from Part 1. Part 2 or 4 may open after RD for ERAS-007 + EC is identified in Part 1 or 3.*

[a] EC: Encorafenib 300 mg PO QD + Cetuximab loading dose 400 mg/m2 IV, subsequent dose 250 mg/m2 IV QW

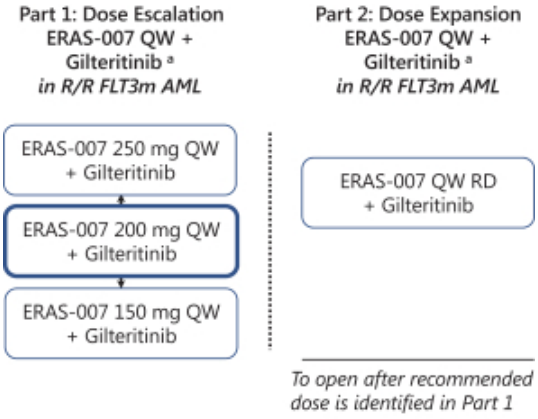



*Part 6 or 8 may open after RD for ERAS-007 + K is identified in Part 5 or 7.*

[b] K QD: CDK4/6 inhibitor oral daily for 21 days followed by 7 days off in a 28-day cycle.

[c] K QW: CDK4/6 inhibitor oral weekly.

As shown in the schema below, **HERKULES-4** is a Phase 1b/2 trial that will evaluate ERAS-007 in combination with gilteritinib in patients with FLT3 mutant AML, which represents 30-40% of all AML, or approximately 61,000 new patients worldwide each year. The standard of care for patients with relapsed/refractory AML is gilteritinib, a FLT3 inhibitor. Only 14% of patients achieve a complete response, nearly all patients experience disease progression, and the median overall survival is less than 10 months. While FLT3 is the most commonly altered gene in AML, alterations along the entire RAS/MAPK pathway are also prevalent, including SHP2, KRAS, NRAS, and BRAF, suggesting dual FLT3 and ERK inhibition or triple FLT3, SHP2, and ERK inhibition may improve the efficacy of gilteritinib monotherapy. In **Part 1**, an ERAS-007 weekly recommended dose will be identified in combination with gilteritinib, with a safety assessment as the primary endpoint. In **Part 2**, this combination regimen will be evaluated in patients with relapsed/refractory AML. The primary endpoint will be an assessment of anti-tumor activity. When the optimal dose and schedule for our first MAPKlamp combination (ERAS-007 plus ERAS-601) have been identified in the HERKULES-1 trial, this combination will be introduced into the HERKULES-4 trial to evaluate MAPKlamp plus gilteritinib in FLT3 mutant AML. We expect to dose the first patient in **HERKULES-4** in the first quarter of 2022.




[a] Gilteritinib 120 mg oral daily

These and other trial designs may be modified based on evolving clinical and nonclinical data, as well as feedback from regulatory agencies.

***ERAS-601: our SHP2 inhibitor***

ERAS-601 is designed to be a potent and selective oral inhibitor of SHP2. In preclinical studies, ERAS-601 has demonstrated strong in vitro potency relative to other SHP2 inhibitors (RMC-4550 and TNO155) and favorable absorption, distribution, metabolism, and excretion (ADME) and PK properties, which we believe support its use in a broad range of combination therapies. ERAS-601 is the second prong of our first MAPKlamp with ERAS-007. In our first-in-human trial, FLAGSHP-1, we are evaluating the safety, tolerability, PK, PD, and preliminary anti-tumor activity of ERAS-601 in patients with advanced or metastatic solid tumors. We believe that approximately 4.9 million patients worldwide per year could benefit from ERAS-601 in combination with other agents, including ERAS-007.

*Preclinical profile of ERAS-601*

In a biochemical assay, ERAS-601 potently and selectivity inhibited full length SHP2 with an IC50 value of 4.6 nM as shown in the table on the left below. By binding to an allosteric pocket that is present only in the inactive conformation of SHP2, ERAS-601 inhibited SHP2 activity by stabilizing the protein in the inactive state. No ERAS-601 activity was observed against 10 other phosphatases (including SHP1), and ERAS-601 showed no strong inhibition of any kinase in a 300-kinase panel (i.e., less than 30% inhibition at 1 µM), demonstrating high selectivity as shown in the table on the right below.

| Compound | Biochemical SHP2 inhibition IC50 (nM) |
|---|---|
| ERAS-601 | 4.6 |

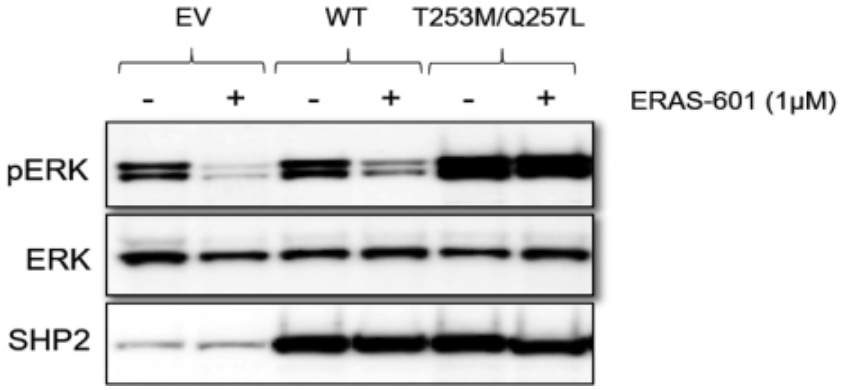
ERAS-601 demonstrated no off-target activity in 300 kinase (<30% inhibition @ 1µM) and 12 phosphatase panels (IC50 >10µM)

| | Phosphatase | % inhibition at 10 µM ERAS-601 relative to DMSO control |
|---|---|---|
| Off target | PP1B | 0 |
| | PP1A | 0 |
| | PP2A Alpha / PP2R1A complex | 1 |
| | PTPRC | 6 |
| | DUSP22 | 0 |
| | PTPN2 | 3 |
| | PTPN7 | 0 |
| | PTPN12 | 0 |
| | PTPN1 | 0 |
| | PTPN6 (SHP1) full length | 0 |
| | PTPN11 (SHP2) catalytic domain | 0 |
| On target | PTPN11 (SHP2) full length | 100 |

***Biochemical on-target activity of ERAS-601 against SHP2 (left) and biochemical activity of ERAS-601 in a panel of 12 phosphatases (right). PTPN11 (SHP2) catalytic domain protein is a truncated form of SHP2 (246 aa – 593 aa). This truncated form contains a phosphatase domain and is missing two regulatory domains. The PTPN11 (SHP2) catalytic domain does not harbor the binding site of ERAS-601 due to these missing domains, while the PTPN11 (SHP2) full length protein does harbor ERAS-601's binding site.***

ERAS-601's activity against SHP2 was shown in a cell-based assay using a SHP2 inhibitor-sensitive cell line, NCI-H1666, which was transduced with either wildtype SHP2 or mutant SHP2 (T253M / Q257L). ERAS-601 inhibited RAS/MAPK pathway signaling, shown by a decrease of phosphorylated ERK (pERK) relative to total ERK in the figure below, but ERAS-601 had no effect on RAS/MAPK pathway signaling in the double mutant SHP2 cell line. These cell data support that ERAS-601's cellular activity is due to SHP2 binding and not due to

off-target activity. In vitro cell line screening revealed potent ERAS-601 activity in EGFR, KRAS, NF1, and class III BRAF mutant cell lines. Generally, ERAS-601 showed greater activity in RAS/MAPK pathway mutant cell lines that relied on upstream RTK signaling, such as EGFR, NF1 loss-of-function, and class III BRAF mutants. ERAS-601 did not show activity in cell lines that harbored activating RAS/MAPK pathway activating mutations that were not dependent on upstream signaling, such as the melanoma BRAF V600E mutant cell line A375.




*Western blot of the NCI-H1666 cell line transduced with empty vector (EV), wildtype SHP2 (WT), and double mutant SHP2 (T253M and Q257L). The two T253M and Q257L mutations in SHP2 prevent ERAS-601 from binding SHP2 via steric hindrance. ERAS-601 at 1 μM inhibited pERK in empty vector and SHP2 wildtype transduced cells. ERAS-601 at 1 μM did not inhibit pERK in cells transduced with double mutant SHP2, thereby suggesting that ERAS-601's cellular activity is due to SHP2 binding.*

The ADME/PK properties of ERAS-601 have been extensively evaluated in non-clinical studies. As shown in the table below, ERAS-601 demonstrated favorable physicochemical and PK properties, including low risk of drug-drug interaction (DDI), negligible CYP enzyme inhibition, and moderate plasma protein binding. It also showed high oral bioavailability and low clearance across multiple animal species. We believe these properties support ERAS-601's use in a broad range of combination therapies.

| Assay | ERAS-601 |
|---|---|
| cLogP/PSA | <1/<130 |
| MW | <600 |
| PBS solubility (μM) | >300 |
| Caco2 permeability at 10 μM, $P_{app}$ (AB/BA) ($10^{-6}$, cm/s) | 2.57/27.5 |
| Plasma protein binding, Free fraction % M/R/D/H | 26/12/35/33 |
| Stability in liver microsomes M/R/D/H | Low Clearance |
| Inhibition of CYP 3A4, 2C9, 2D6, IC50 (μM) | >100 |
| CYP3A4 TDI | No flag |
| hERG Q-patch IC50 (μM) | >30 |
| GLP hERG IC50 (μM) | 12 |

*Preclinical anti-tumor activity of ERAS-601*

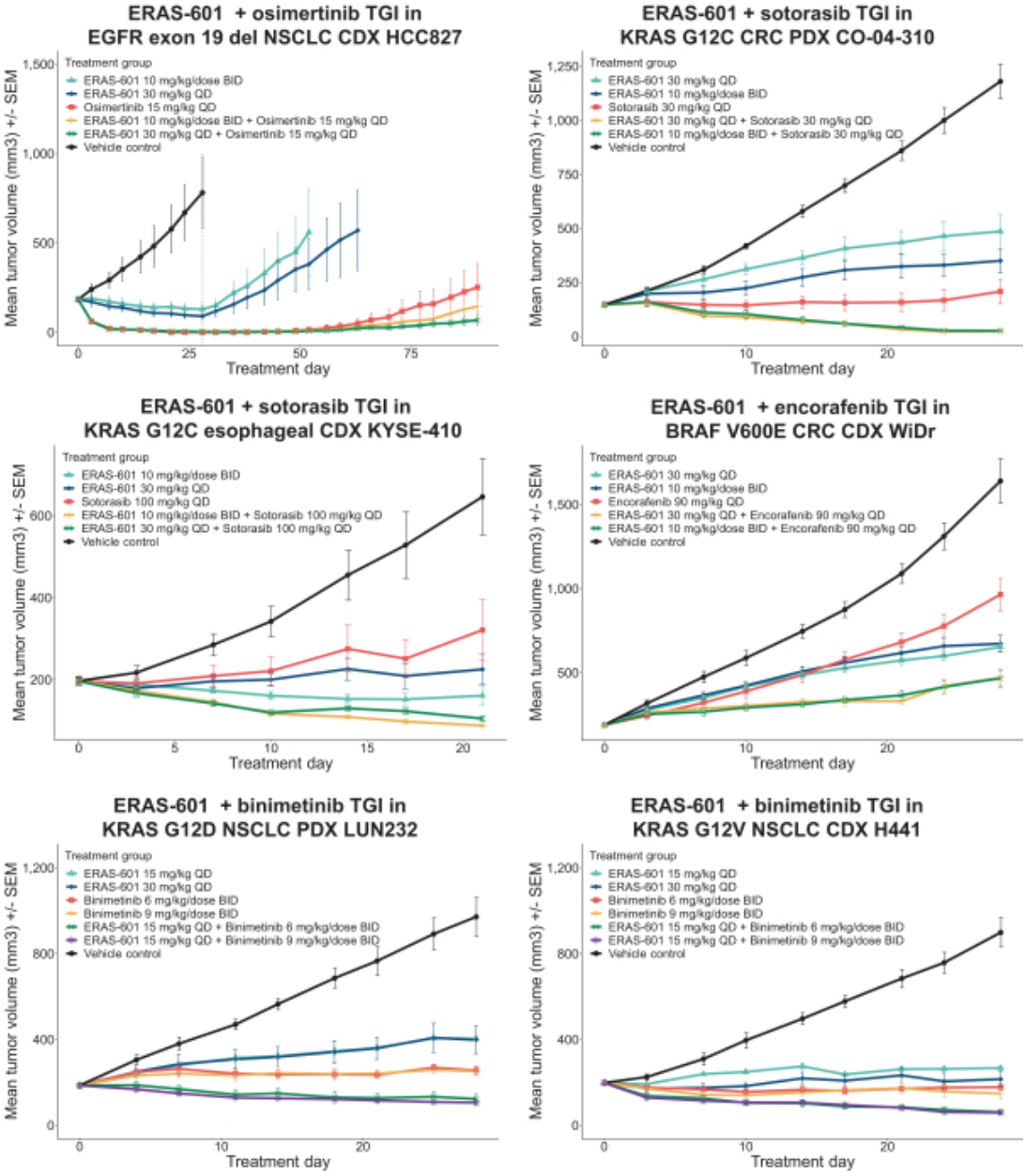
As shown in the table below, ERAS-601 significantly inhibited tumor growth as a monotherapy in 21 in vivo models, including KRAS G12C, KRAS G12D, KRAS G12V, EGFR, BRAF class I and III, and NF1 loss-of-function mutations. In 18 models, ERAS-601 was well tolerated and showed significant tumor growth inhibition at QD and BID dose schedules. In a PK/PD study, ERAS-601 also achieved time and dose-dependent increases in plasma concentrations and concomitant reductions in RAS/MAPK pathway signaling, as measured by pERK, in the KRAS G12C mutant NSCLC xenograft model NCI-H358. Tumor pERK1/2 levels were reduced by more than 50% when ERAS-601 total plasma concentrations exceeded or approximated the IC50/fu, which is the in vitro cellular pERK IC50 unbound fraction in plasma.

| Mutation | Model ID | Tumor type | Antitumor activity of ERAS-601 | |
|---|---|---|---|---|
| | | | 10 mg/kg BID (% TGI) | 30 mg/kg QD (% TGI) |
| $KRAS^{G12C}$ | NCI-H358 | NSCLC | 101%*** | 71%** |
| | LUN156 | NSCLC | 87%** | 86%* |
| | MIA PaCa-2 | PDAC | 91%*** | 79%*** |
| | CO-04-0310 | CRC | 80%*** | 67%*** |
| | CR022 | CRC | 72%*** | 75%*** |
| $KRAS^{G12D}$ | LUN232 | NSCLC | Not evaluated | 73%*** |
| | GP2D | CRC | 60%** | 71%** |
| | LS513 | CRC | 66%* | 77%** |
| | LUN137 | CRC | Not evaluated | 82%* |
| $KRAS^{G12V}$ | H441 | NSCLC | Not evaluated | 98%*** |
| EGFR | HCC827 (Exon19Del) | NSCLC | 118%*** | 126%*** |
| | HCC827-ER1 (Exon19del and MET amp) | NSCLC | 97%*** | 102%*** |
| | NCI-H820 (EGFR Exon19Del, EGFR T790M, MET amp) | NSCLC | 84%** | 81%** |
| | KYSE-520 (amplification) | Esophageal | 100%*** | 101%*** |
| BRAF class I (BRAF V600E) | WiDr | CRC | 67%*** | 68%*** |
| BRAF class III | NCI-H508 | CRC | 136%** | 135%** |
| | LUN023 | NSCLC | 100%* | 123%** |
| $NF1^{LOF}$ | MeWo | Melanoma | 86%*** | 85%*** |
| | NCI-H1838 | NSCLC | 140%** | 144%** |
| | LUN150 | NSCLC | 167%*** | 167%*** |
| | LU6484 | NSCLC | 77%*** | 83%*** |

***ERAS-601 exhibited significant TGI relative to vehicle control (p-value < 0.05) in 10 KRAS mutant, four EGFR mutant, three BRAF mutant, and four $NF1^{LOF}$ mutant CDX and PDX models. Significant TGI was observed at both 30 mg/kg QD and 10 mg/kg BID doses. *p-value < 0.05 **p-value < 0.01 ***p-value < 0.001 (p-values assessed relative to vehicle control)***

*Preclinical activity of ERAS-601 combination therapies*

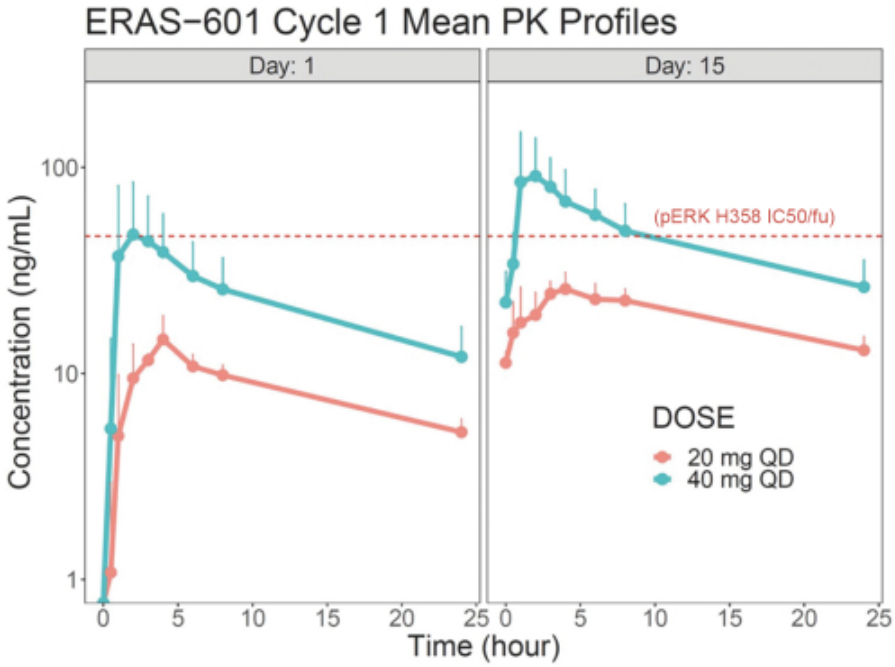
As shown in the figures below, when combined with inhibitors of EGFR, KRAS G12C, BRAF, and MEK, ERAS-601 showed significantly greater tumor growth inhibition than dosing of these inhibitors as monotherapies. This benefit was observed in models that harbored mutations both upstream and downstream of SHP2. These ERAS-601 combinations were generally well tolerated across the tested models as demonstrated by the minimal percentage body weight changes observed.



*ERAS-601 combined with osimertinib, sotorasib, encorafenib, and binimetinib showed significant TGI in six CDX and PDX models. The ERAS-601 + osimertinib (EGFR inhibitor) combination showed superior though non-significant TGI relative to osimertinib and ERAS-601 monotherapy on day 90. The dotted line indicates day 28, when dosing was stopped in all treatment groups. The ERAS-601 + sotorasib (KRAS G12C inhibitor) showed significant TGI relative to vehicle control (p-value < 0.01) and monotherapy arms (p-value < 0.05) in KRAS G12C mutant CRC PDX and esophageal CDX models. The ERAS-601 + encorafenib (BRAF V600E inhibitor) combination showed significant TGI in a BRAF V600E mutant CDX model relative to vehicle control (p-value < 0.001) and the monotherapy doses (p-value < 0.05). In two KRAS mutant NSCLC models, ERAS-601 + binimetinib (MEK inhibitor) combination showed significant TGI relative to vehicle control (p-value < 0.001) and monotherapy doses (p-value < 0.01).*

*Phase 1 pharmacokinetics*

As of April 6, 2021, preliminary PK data were available from six subjects enrolled in the FLAGSHP-1 study following single- and multiple-dose administration of ERAS-601 at doses ranging from 20 to 40 mg QD (n=3/dose). As shown below, following oral administration, ERAS-601 exhibited relatively fast absorption, with peak plasma concentration, $C_{max}$, generally achieved within 4 hours post-dose. PK exposure as measured by $C_{max}$ and AUC increased in a dose-dependent manner. Mean terminal half-life at steady state ranged from 16 to 22 hours. Approximately 2-fold accumulation for AUC was observed following QD dosing which is consistent with the elimination half-life and dosing schedule. Overall, ERAS-601 exhibited promising PK characteristics based on data from the first two cohorts as of the data cutoff.




*Development strategy for ERAS-601*

Our clinical development plan aims to advance ERAS-601 in combination with other targeted agents to prevent and overcome adaptive resistance mechanisms in order to achieve more durable clinical benefit. In the fourth quarter of 2020, we began evaluating the safety and tolerability of ERAS-601 in a first-in-human dose

escalation trial in patients with advanced or metastatic solid tumors in our FLAGSHP-1 trial. The primary endpoints of this trial are assessments of safety and anti-tumor activity. As of June 1, 2021, we have dosed 14 patients. Through the first four cohorts, ERAS-601 has been well-tolerated with one dose-limiting toxicity of grade 3 thrombocytopenia observed at the highest once-daily dose tested to date, and showed good PK characteristics. Thrombocytopenia is a known adverse event associated with other clinical-stage SHP2 inhibitors. A total of four serious adverse events (SAEs) were observed, three of which were attributed to ERAS-601 and all of which were manageable and reversible. We anticipate a Phase 1 data readout from our FLAGSHP-1 trial in the second half of 2022. After we have identified the monotherapy RD of ERAS-601, we will evaluate rational combinations with ERAS-601, including with ERAS-007 (our first, innovative MAPKlamp) in our HERKULES series of clinical trials. Other agents for potential combinations include approved RTK inhibitors, RAS/MAPK pathway inhibitors, and/or investigational agents we are developing, such as ERAS-801 and our to-be-nominated ERAS-1 DevCan. Given the wide range of cancers that are dependent on SHP2, we believe ERAS-601 could serve as a backbone for compelling combination therapies to prolong survival for patients.

***ERAS-1: our CNS-penetrant KRAS G12C inhibitor program***

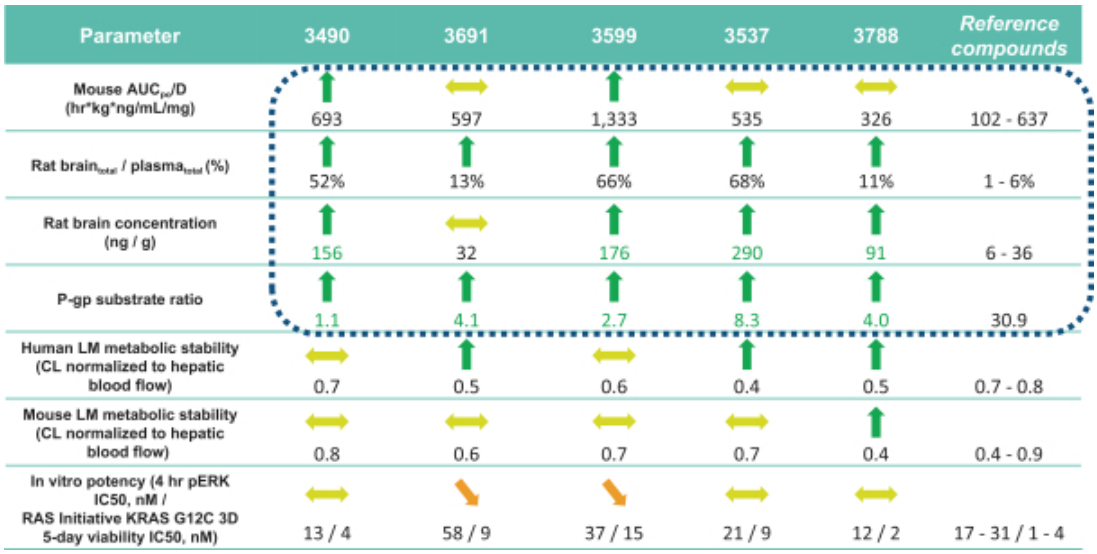
RAS proteins are the most frequently mutated oncoproteins, with KRAS being the most abundantly expressed RAS isoform. Despite decades of research focused on KRAS as a target of interest in oncology, it was generally deemed to be undruggable until 2013, when Dr. Shokat and his colleagues at UCSF identified a new binding pocket, S-IIP, via crystallography studies. Importantly, they also described the discovery of small molecules that irreversibly bound to this pocket on KRAS G12C – a finding that turned an undruggable target into a druggable one.

This historic discovery spurred multiple companies to develop KRAS G12C inhibitors, including some that are currently in clinical trials. While single agent activity to date has been most promising in NSCLC, opportunities remain for improvement in CNS penetration to be able to address the propensity of NSCLC to metastasize to the brain. Worldwide, KRAS G12C mutations affect approximately 350,000 patients with cancer, with NSCLC comprising two-thirds of these patients, and CRC one-sixth of these patients. NSCLC has the highest rate of CNS metastases, and the CNS is a site of progression in approximately 25% to 50% of patients on standard of care therapies. Hence, we believe a CNS-penetrant KRAS G12C inhibitor, either as a monotherapy or in combination therapies, would represent an important advance in maintaining systemic disease control, prolonging response, and preventing CNS progression. In preclinical in vivo experiments, two late clinical-stage KRAS G12C inhibitors (the reference compounds) were poorly CNS-penetrant, detectable in the CNS at less than 10% of the plasma level. We have been designing and optimizing KRAS G12C inhibitors that have shown comparable or superior anti-tumor activity to the reference compounds and robust ability to cross the blood-brain barrier (BBB) in order to address this key limitation.

*Preclinical profile of ERAS-1 pre-candidates*

Our team discovered a novel scaffold that binds the S-IIP in a different configuration which allows us to optimize potency while also enabling high CNS penetration. We have discovered and are characterizing five KRAS G12C inhibitor pre-candidates based on this scaffold that have promising potency, selectivity, and physicochemical properties relative to the reference compounds.

Importantly, all five pre-candidates (ERAS-3490, ERAS-3691, ERAS-3599, ERAS-3537, and ERAS-3788) have shown attractive physicochemical properties relative to the reference compounds, especially with respect to in vitro CNS penetration:




*Five ERAS-1 pre-candidates showed comparable in vitro and in vivo PK characteristics and in vitro potency to the reference compounds. ERAS-3490 and ERAS-3599 exhibited superior exposure and CNS penetration relative to the reference compounds, and ERAS-3537 and ERAS-3788 exhibited superior CNS penetration relative to the reference compounds. A green arrow indicates a favorable value relative to the reference compounds, a yellow arrow indicates a comparable value, and an orange arrow indicates an inferior value. P-gp substrate ratios were characterized in a P-gp expressing MDCK cell line. Per compound, a P-gp substrate ratio was calculated by dividing its efflux ratio in absence of a P-gp inhibitor by its efflux ratio in presence of a P-gp inhibitor. Compounds with lower P-gp substrate ratios are less likely to have CNS penetration limited by P-gp mediated efflux. LM stands for liver microsome and CL stands for clearance. Liver microsome stability is normalized to hepatic blood flow to better enable cross-species comparisons. In vitro potency was characterized by both pERK inhibition and cell viability. Both potency assays used the RAS Initiative KRAS G12C cell* **line.**

We are aiming to optimize CNS penetration while maintaining comparable potency and metabolic stability to the reference compounds. This is a highly challenging balancing act to achieve because typically, the attributes of a molecule that endow it with potency against the S-IIP (e.g., hydroxyl group moiety for one of the reference compounds) are the very properties that compromise its ability to cross the BBB. Our goal with our CNS-penetrant KRAS G12C inhibitor discovery program has been to significantly increase CNS penetration as measured by the rat brain$_{total}$/plasma$_{total}$ ratio (RBP, measured in percent). Reference compounds have RBPs ranging from 1% to 6%. Our pre-candidates have RBPs ranging from 11% to 68% (ERAS-3537 [68%], ERAS-3599

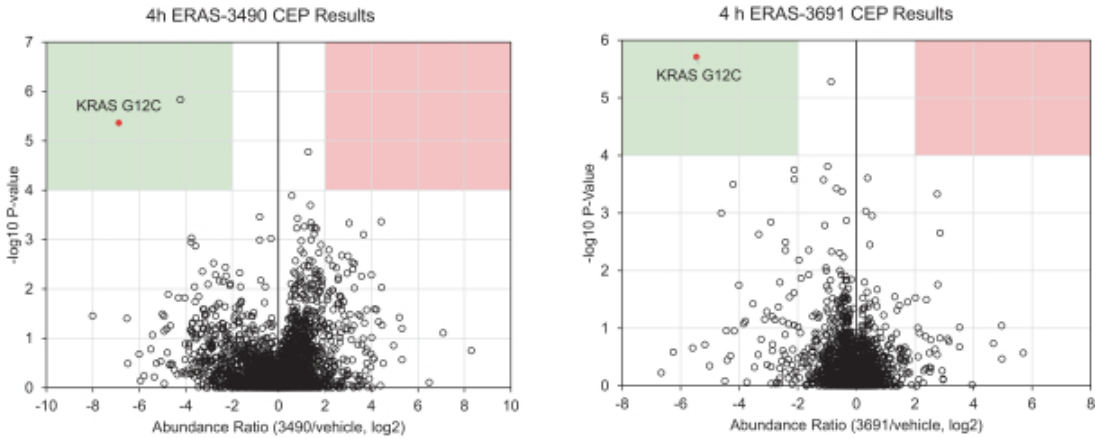
[66%], ERAS-3490 [52%], ERAS-3691 [13%], and ERAS-3788 [11%]), and therefore have the potential to demonstrate better CNS penetration in the clinic than the reference compounds. Our team has significant experience developing targeted CNS-penetrant compounds, including entrectinib (ROZLYTREK), an FDA-approved product for ROS1 fusion-positive NSCLC and NTRK fusion-positive solid tumors, including those in patients with CNS metastases. Using the rat brain assays, entrectinib has an RBP of 16% and an absolute value of 80 ng/g rat brain concentration.

Furthermore, ERAS-3490 and ERAS-3599 are not P-glycoprotein (P-gp) substrates, meaning they are less likely to be effluxed, or pumped, from the brain back out into the blood. This feature further enhances the potential for high CNS penetration of these two pre-candidates relative to the other three pre-candidates and reference compounds that are P-gp substrates.

*Our most advanced ERAS-1 pre-candidates*

Two of our most advanced compounds, ERAS-3490 and ERAS-3691, which are representative molecules from two different series derived from the same novel scaffold, have different advantages along the dimensions of PK or metabolic stability while maintaining comparable potency against KRAS G12C. ERAS-3490 potently inhibited the proliferation of 17 KRAS G12C cell lines with IC50s ranging from 1.4 nM to 82 nM. ERAS-3691 potently inhibited the growth of the same 17 KRAS G12C cell lines with IC50s ranging from 5.7 nM to 65 nM. These values were comparable to the reference compounds, which showed IC50s ranging from 2 nM to 35 nM in the same cell line panel.

These pre-candidates were shown to be highly selective inhibitors of KRAS G12C. This is supported by ERAS-3490 adducting with only one other peptide and ERAS-3691 adducting with no other peptides when incubated for 4 hours in the KRAS G12C mutant cell line NCI-H358. The figure below shows that KRAS G12C was strongly (x-axis) and significantly depleted (y-axis) when incubated with either ERAS-3490 or ERAS-3691 relative to vehicle control, indicating that both compounds strongly bound to KRAS G12C.

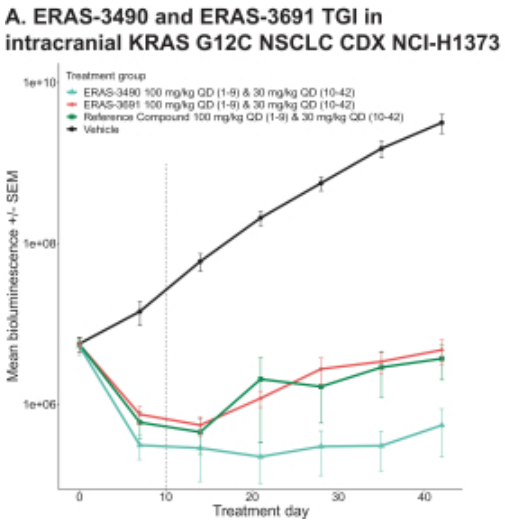


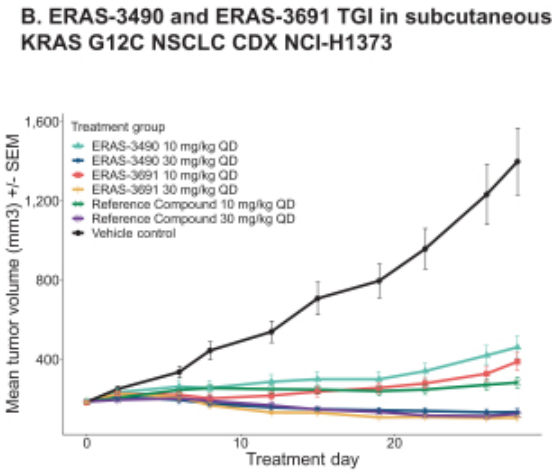

*ERAS-3490 and ERAS-3691 selectively bound to KRAS G12C protein in cell-based Cysteine Enrichment Proteome (CEP) assays. This assay quantifies the covalent binding activity of cysteine-targeting compounds, like ERAS-3490 and ERAS-3691, after being incubated with NCI-H358 cells for 4 hours at 1 μM. The depletion of cysteine-containing proteins in the compound treatment sample relative to vehicle treatment indicates that the compound is covalently binding to that peptide. The x-axis represents the magnitude of protein depletion, and the y-axis represents the significance of depletion. Proteins in the shaded green region are significantly depleted by at least 4-fold (p-value < 1.0e-4) and proteins in the*

*shaded red region are significantly enriched by at least 4-fold (p-value < 1.0e-4). Both compounds were profiled in the KRAS G12C mutant NSCLC cell line NCI-H358. In the ERAS-3490 study, KRAS G12C and one other protein, PDS5, were the only two proteins out of 2,602 detected proteins that were significantly depleted. In the ERAS-3691 study, KRAS G12C was the only detected protein out of 3,103 detected proteins that was significantly depleted. Collectively, these data suggest that these compounds are highly selective for the KRAS G12C mutant protein***.***

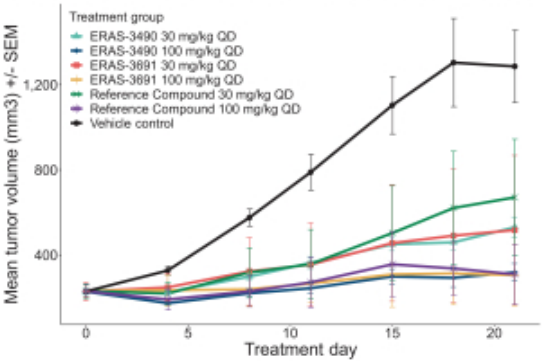
In an exploratory intracranial KRAS G12C NSCLC CDX NCI-H1373 model in panel (A) of the figure below, ERAS-3490 demonstrated that its superior physicochemical properties and PK profile enabled it to significantly outperform ERAS-3691 and a reference compound in anti-tumor activity, both at the initial dose of 100 mg/kg QD for the first nine days and upon lowering the dose to 30 mg/kg for the remainder of the study. In panels (B) to (D), the two pre-candidates demonstrated comparable to superior anti-tumor activity at two different doses relative to a reference compound in three different subcutaneous models of NSCLC (NCI-1373, NCI-H2122) and pancreatic cancer (MIA PaCa-2).

The PK/PD data shown in panel (E) help explain why ERAS-3490 seemed to outperform ERAS-3691 in the intracranial model with its superior PK profile, with high oral bioavailability (mean plasma $AUC_{0\text{-last}}$ of 21,606 ng*h/g vs. 10,065 ng*h/g) and high brain bioavailability (mean brain $AUC_{0\text{-last}}$ of 1985 ng*h/g vs. ND) at the 30 mg/kg dose. In these in vivo studies, these pre-candidates were well tolerated, as body weights remained constant across all the models. Panel (F) shows representative body weight change % of two different doses of the two pre-candidates and a reference compound in the subcutaneous KRAS G12C NSCLC CDX NCI-H2122 model, suggesting the doses were tolerable.

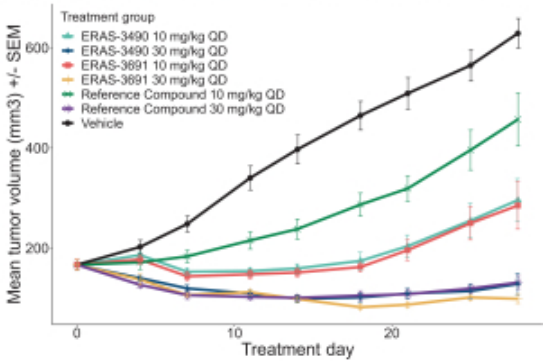


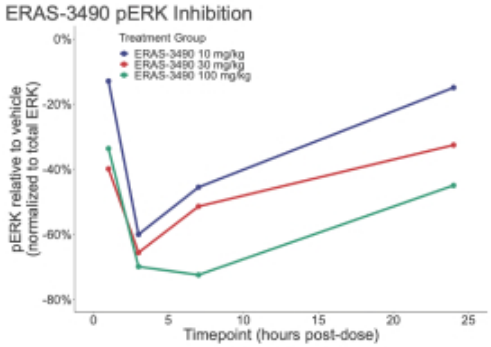
**C. ERAS-3490 and ERAS-3691 TGI in subcutaneous KRAS G12C NSCLC CDX NCI-H2122**

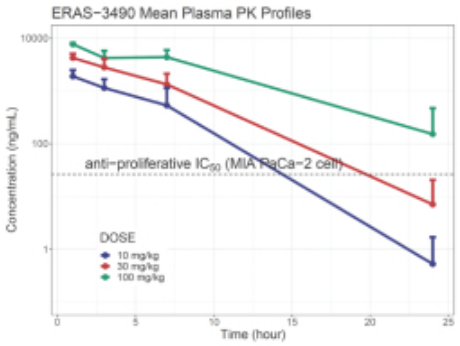


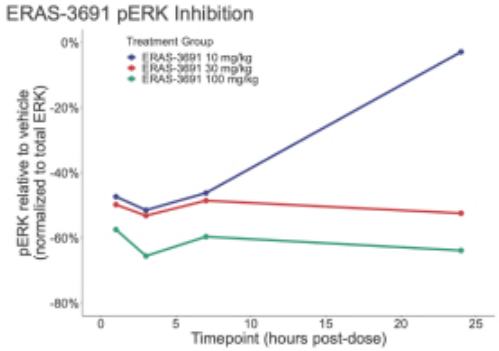

**D. ERAS-3490 and ERAS-3691 TGI in subcutaneous KRAS G12C pancreatic cancer CDX MIA PaCa-2**

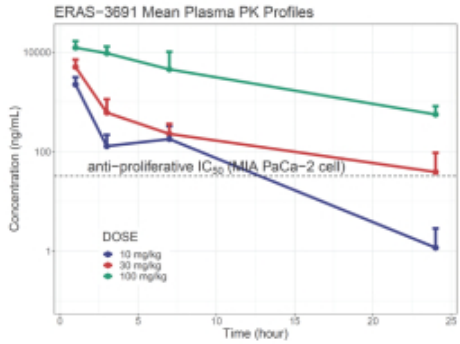


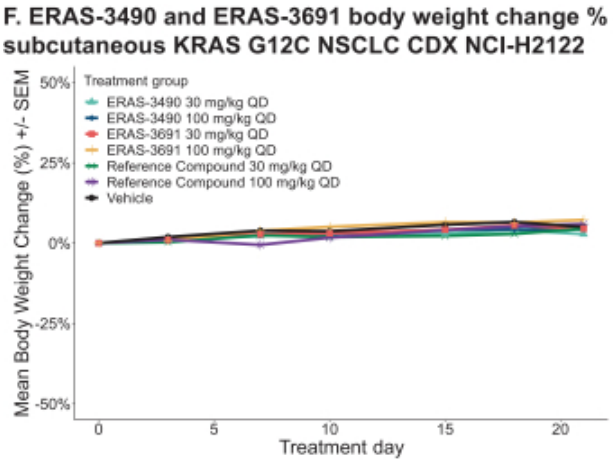

**E. ERAS-3490 and ERAS-3691 single dose pharmacodynamic and pharmacokinetic data in subcutaneous KRAS G12C pancreatic cancer cancer CDX MIA PaCa-2**






*(A) ERAS-3490, ERAS-3691, and a reference compound were dosed in an intracranially injected and luciferase labeled KRAS G12C mutant CDX model, NCI-H1373. All compounds were dosed at 100 mg/kg QD on days 1-9 and then at 30 mg/kg QD on days 10-42. ERAS-3490 and ERAS-3691 significantly inhibited tumor growth relative to vehicle control (p-value < 0.01). (B)-(D) ERAS-3490, ERAS-3691, and a reference compound were dosed in a KRAS G12C inhibitor sensitive subcutaneous NSCLC CDX, NCI-H1373, for 28 days (B), a KRAS G12C inhibitor-insensitive NSCLC CDX, NCI-H2122, for 21 days (C), and a KRAS G12C inhibitor sensitive pancreatic cancer CDX, MIA PaCa-2, for 28 days (D). In all three subcutaneous models, ERAS-3490 and ERAS-3691 significantly inhibited tumor growth at both 30 mg/kg QD (p-value < 0.01) and 100 mg/kg QD (p-value < 0.001) relative to vehicle control. (E) ERAS-3490 and ERAS-3691 inhibited pERK dose-dependently in a single dose PK/PD study in a subcutaneous pancreatic cancer MIA PaCa-2 CDX model. Both ERAS-3490 and ERAS-3691 at 30 mg/kg and 100 mg/kg show sustained pERK inhibition through 24 hours. ERAS-3490 and ERAS-3691 also showed dose-dependent PK. ERAS-3490 maintained plasma concentrations above its in vitro MIA PaCA-2 cell proliferation IC50 for 24 hours at 100 mg/kg, and ERAS-3691 maintained total plasma concentrations above its in vitro MIA PaCa-2 cell proliferation IC50 for 24 hours at both 30 mg/kg and 100 mg/kg. (F) Body weight change of ERAS-3490, ERAS-3691, and a reference compound in the subcutaneous CDX model, NCI-H2122. Compounds were continuously dosed at 30 mg/kg QD and 100 mg/kg QD for 21 days.*

We believe our ERAS-1 pre-candidates are the only KRAS G12C inhibitors specifically designed to cross the BBB. We expect to nominate a DevCan from one of our pre-candidates in the second half of 2021 and file an IND in the second half of 2022.

*Development strategy for ERAS-1 program*

The initial development of our ERAS-1 DevCan as a monotherapy will be in KRAS G12C mutant NSCLC. We will evaluate the hypothesis that improved CNS penetration will enhance clinical activity, broaden the patient population, prolong response, delay disease progression, and extend survival. Our deep pipeline within the RAS/MAPK pathway will allow a number of combination therapies to be developed in NSCLC and other solid tumors, such as CRC and pancreatic cancer. One of the initial combinations to be assessed will be with ERAS-601, as preclinical and clinical data supported the synergistic effect of inhibiting KRAS and SHP2. In addition, the combination of our first MAPKlamp (ERAS-601 plus ERAS-007) and a KRAS G12C inhibitor may effect an even more potent shutdown of the RAS/MAPK pathway. We intend to explore additional combinations of our ERAS-1 DevCan with other approved and investigational agents.

Current clinical-stage KRAS G12C inhibitors have demonstrated limited monotherapy activity in CRC. We believe the greatest benefit in CRC for using KRAS G12C inhibitors–and one that underscores our belief in the importance of assembling a robust pipeline to enable such combinations–will be in combinations with ERAS-601, ERAS-007, or both (our first MAPKlamp) because they may be able to overcome the feedback loops and bypass pathways that underlie the innate resistance to single agent KRAS G12C inhibition in CRC.

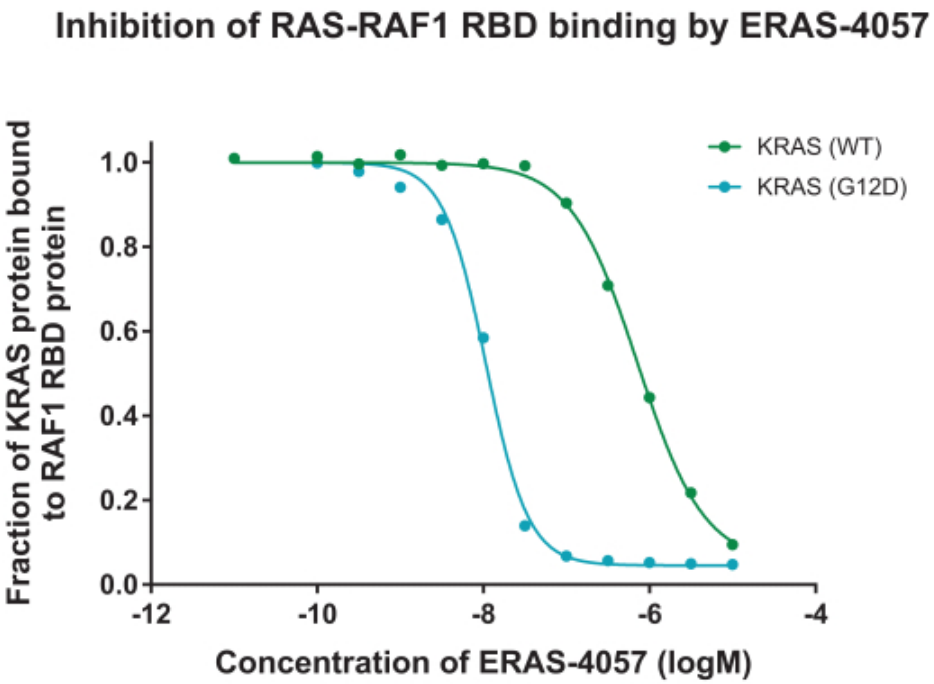
***Our RAS-GTP franchise***

Over 2 million patients annually worldwide are affected by RAS mutations other than KRAS G12C. Like KRAS G12C, these mutations hyperactivate RAS/MAPK pathway signaling by diminishing RAS's ability to transition from the active to the inactive state. Nearly 700,000 of these 2 million patients are affected by tumors that harbor KRAS G12D, which is the most prevalent KRAS mutation. This mutation results in hyperactive RAS/MAPK pathway signaling and is frequently observed in NSCLC, CRC, endometrial cancer, and pancreatic cancer. Targeting non-G12C RAS mutations (the focus of our RAS-GTP franchise, including ERAS-4 and ERAS-2/3) is more challenging than targeting KRAS G12C because: (1) KRAS G12D and other non-G12C RAS mutations are more commonly found in the active RAS-GTP state; (2) non-G12C mutations do not have a mutant-specific site for irreversible inhibitor binding; and (3) these mutations alter the conformation dynamics of RAS, hindering the ability of small molecules to target the same binding site as KRAS G12C inhibitors, S-IIP.

***ERAS-4: our KRAS G12D program***

Our ERAS-4 program endeavors to develop small molecules that potently and selectivity bind KRAS G12D. When bound to KRAS G12D, these inhibitors will prevent RAS-mediated signaling by locking KRAS G12D in the inactive GDP-bound state and/or obstructing KRAS G12D's ability to bind downstream effector proteins, such as BRAF and CRAF. We are accelerating advancement of this program by leveraging our in-house chemistry, biology, and structural biology expertise gained from working on our RAS-GDP and other RAS-GTP programs.

We have made a recent breakthrough in this regard, having generated molecules with low nanomolar IC50 potency against KRAS G12D in the biochemical RAS-cRAF binding assay and high selectivity vs. KRAS wildtype (WT). As shown in the figure below, ERAS-4057 has strong potency of 10.8 nM, with 66-fold selectivity vs. KRAS WT. We are optimizing the properties of these molecules utilizing SBDD and structure-activity relationships while continuing to focus on generating other highly potent and selective compounds against KRAS G12D, with the intention to nominate and advance a DevCan into IND-enabling activities.

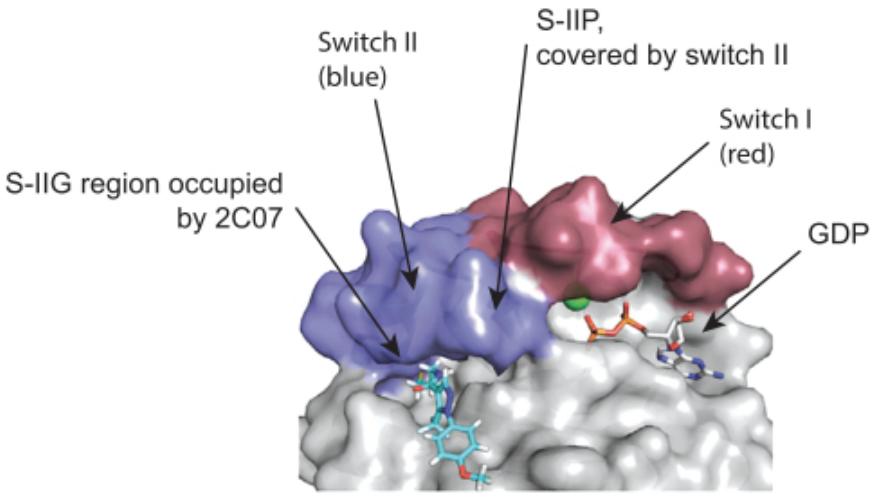



*ERAS-4057 potently and selectively bound KRAS G12D with an IC50 of 10.8 nM (blue) and KRAS WT, an off-target protein, with an IC50 of 717.3 nM (green). Lower values on the y-axis indicate stronger inhibition of KRAS-RAF1 Ras binding domain (RBD) binding. Higher values on the x-axis indicate higher concentrations of ERAS-4057. In this assay, GDP-bound KRAS was converted to GTP-bound KRAS via an interaction with SOS1 and GTP-bound KRAS then bound the RAF1 RBD protein. A compound that inhibited the transition of KRAS from the GDP-bound to GTP-bound state and/or inhibited the protein-protein binding of KRAS and RAF1 resulted in a lower fraction of KRAS-RAF1 RBD binding.*

***ERAS-2/3: our other RAS-GTP programs***

Our ERAS-2/3 program is focused on the development of small molecule inhibitors that target a novel region on RAS called the switch II groove (S-IIG). Unlike the S-IIP, the S-IIG is accessible in both the GDP-bound and GTP-bound states of RAS, making it a robust binding region across multiple RAS mutants.

Dr. Shokat identified a new binding site called S-IIG, as shown in the figure below. The original S-IIP that was the binding site for KRAS G12C inhibitors is present in the RAS-GDP state only. When RAS cycles to the RAS-GTP state, the S-IIP becomes obscured by switch II. Unlike the S-IIP, the S-IIG is not obscured by switch II, which enables small molecules to access the S-IIG independently of the phosphorylation state of the bound guanosine. Therefore, S-IIG is present in both the RAS-GTP and RAS-GDP states. Disruption of these switch regions can inhibit RAS signaling since GTP-bound RAS binds to effector proteins at these switch regions. We entered into an exclusive worldwide license agreement with UCSF for Dr. Shokat's work related to RAS-GTP which guides our ERAS-2/3 programs.




*The small molecule tool compound binds to the S-IIG region on GDP-bound KRAS M72C in this surface representation of RAS. The S-IIG is less obstructed by switch II, and this feature allows small molecules to bind to the S-IIG independently of the phosphorylation state of the bound guanosine. Unlike S-IIG, access to S-IIP is influenced by the phosphorylation state of the bound guanosine. Most selective KRAS G12C inhibitors in development bind to the S-IIP. Switch II is flexible in the GDP-bound state, allowing small molecule inhibitors to access the S-IIP. In the GTP-bound state, switch II rigidly folds over the S-IIP and occludes access to the S-IIP, thereby preventing most selective KRAS G12C inhibitors from accessing the S-IIP. Binding of GDP to RAS is coordinated by a magnesium ion, shown in green.*

***Our EGFR franchise***

EGFR is a transmembrane protein and member of the ErbB family of receptor tyrosine kinases (RTKs) that under normal conditions bind various growth factors to activate cellular signaling to regulate homeostasis. However, when the receptor is overexpressed, amplified, and/or mutated, it becomes oncogenic, thereby contributing to cell survival, proliferation, and metastasis.

We are developing a differentiated portfolio of programs that target EGFR, including ERAS-801, our CNS-penetrant small molecule EGFR inhibitor, and ERAS-12, our EGFR domain II/domain III (D2/D3) targeting bispecific antibody.

***ERAS-801: our CNS-penetrant EGFR inhibitor***

EGFR-mediated signaling plays a key role in the growth of many tumor types. Targeting of wildtype EGFR (wtEGFR) and mutant variants of EGFR (EGFRm) by small molecules and antibodies has resulted in improved

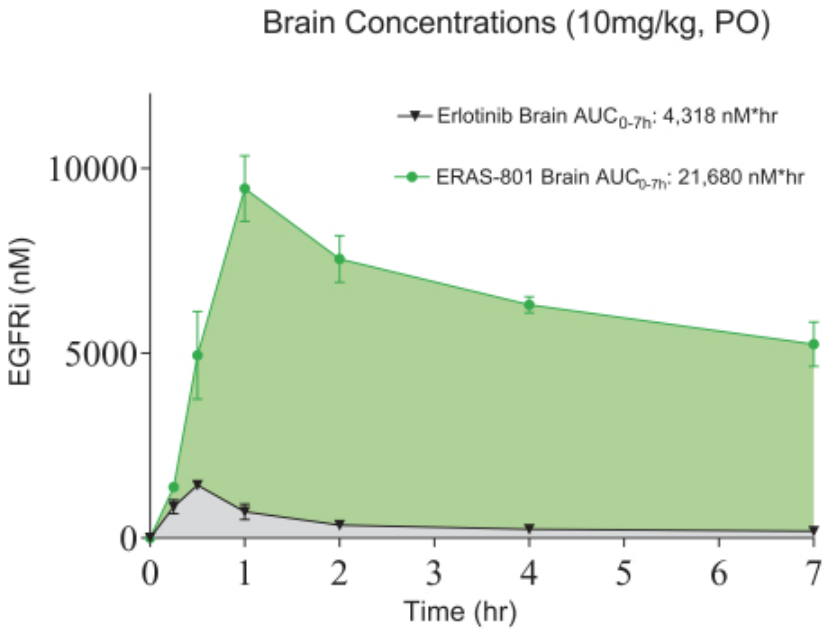
patient outcomes in NSCLC, CRC, and HNSCC. However, the ability of these agents to effectively target wtEGFR and EGFRm in the CNS remains an unmet medical need. For example, in primary CNS tumors like GBM that have amplification of wtEGFR as well as expression of a mutation in the extracellular domain, the most common of which is epidermal growth factor receptor variant III (EGFRvIII), approved small molecule EGFR inhibitors have not demonstrated clinical activity.

The lack of clinical activity is likely multifactorial, but we believe there are two primary reasons why approved EGFR inhibitors are not effective: (1) the molecules do not penetrate the CNS well, and (2) the molecules are weak inhibitors of the EGFRvIII mutant protein as homodimers or heterodimers that include wildtype EGFR.

ERAS-801 is designed to be a potent, selective, reversible, and orally available small molecule with both: (1) highly enhanced CNS penetration (3.7:1 brain:plasma ratio in mice) and (2) the ability to target both EGFR alterations such as EGFRvIII, the most common mutant form of EGFR found in GBM, and wtEGFR, which heterodimerizes with EGFRvIII.

*High CNS penetration of ERAS-801*

As shown below, following administration of a single oral dose of 10 mg/kg in mice, ERAS-801 demonstrated substantially higher brain concentrations than erlotinib, an approved EGFR inhibitor:




*Brain concentrations and exposures of ERAS-801 and erlotinib in mice when administered a single 10 mg/kg dose. The x-axis represents time when brain concentration was assessed post-dose. The y-axis represents total concentration of compound in nanomolars.*

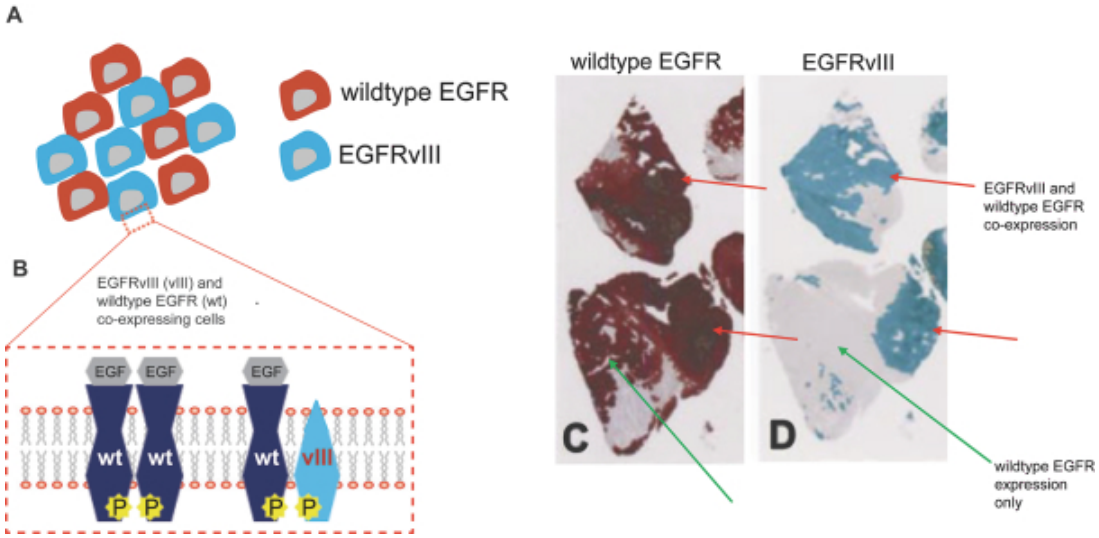
Whereas approved EGFR inhibitors have suboptimal CNS penetration for primary brain tumors, as shown below, ERAS-801 showed substantially higher values of $K_p$ and $K_{p,uu}$ (partition coefficients that measure bound and unbound drug concentration, respectively) compared to osimertinib, afatinib, erlotinib, gefitinib, and dacomitinib. The below figure is for illustrative purposes only and is not a head-to-head comparison. These data were generated from different studies, and caution should be exercised when comparing data across studies.

| Compound (Brand Name) | Company | $K_p$, brain (mouse) | $K_{p,uu}$, brain (mouse) |
|---|---|---|---|
| ERAS-801 | Erasca | 3.7 | 1.2 |
| Osimertinib (Tagrisso) | AstraZeneca | 0.99 | 0.29 |
| Afatinib (Gilotrif) | Boehringer Ingelheim | 0.25 | 0.05 |
| Erlotinib (Tarceva) | Genentech | 0.06 | 0.13 |
| Gefitinib (Iressa) | AstraZeneca | 0.36 | 0.10 |
| Dacomitinib (Vizimpro) | Pfizer | 0.61 | 0.49 |

*Comparison of CNS penetration characteristics of ERAS-801 relative to approved EGFR inhibitors in mouse. $K_p$ is a ratio of bound brain exposure to bound plasma exposure. $K_{p,uu}$ is a ratio of unbound brain exposure to unbound plasma exposure. ERAS-801 $K_p$ and $K_{p,uu}$ values were determined internally, and data for other compounds are based on published results.*

*Dual targeting of EGFR alterations and wtEGFR in GBM to address heterodimerization*

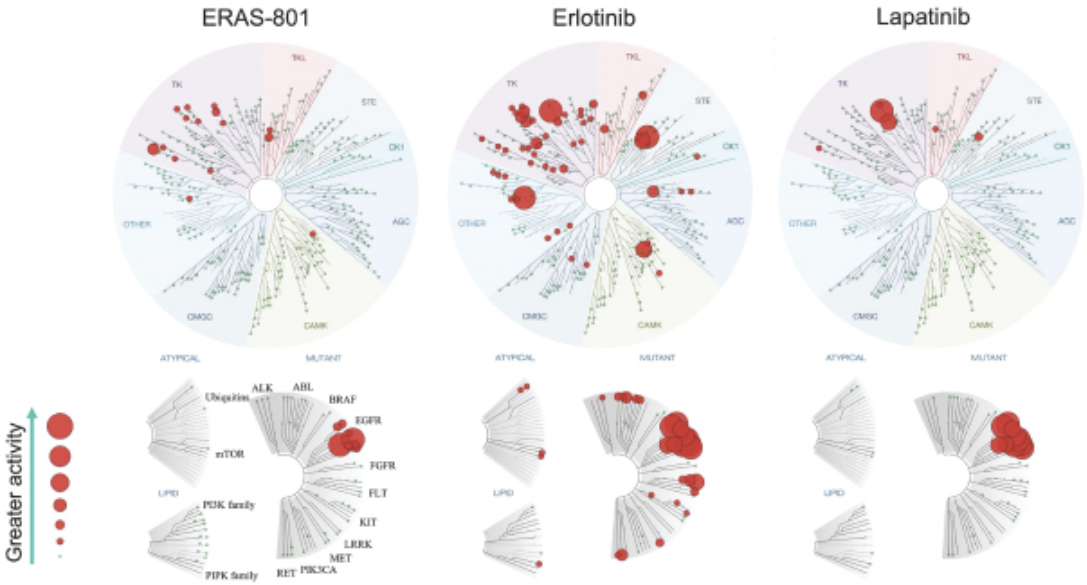
The most common mutant form of EGFR found in GBM is EGFRvIII. Given the promiscuous nature of EGFR signaling, ERAS-801 has been specifically designed to have activity against both EGFR alterations such as EGFRvIII and wildtype EGFR, as we believe that wtEGFR inhibition is critical to impairing the growth of EGFR altered GBM because of the propensity of wtEGFR to heterodimerize with EGFRvIII to drive oncogenic signaling, as seen below with substantial co-expression of EGFRvIII and wtEGFR.




*Panel A showed that the EGFR splice variant mutant EGFRvIII may be expressed in a subset of GBM tumor cells and that it can be co-expressed with wildtype EGFR. Panel B showed a zoomed in diagram of a GBM tumor cell membrane that harbors both wildtype EGFR and EGFRvIII. Wildtype EGFR can homodimerize with another wildtype EGFR protein or heterodimerize with EGFRvIII, in each case potentially leading to oncogenic signaling. In panels C and D, an immunohistochemistry-stained section of GBM tumor tissue shows wildtype EGFR-expressing tumor cells in brown and EGFRvIII-expressing tumor cells in blue. Regions that are stained both brown and blue express both wildtype EGFR and EGFRvIII proteins while regions that are stained brown but not blue express wildtype EGFR only.*

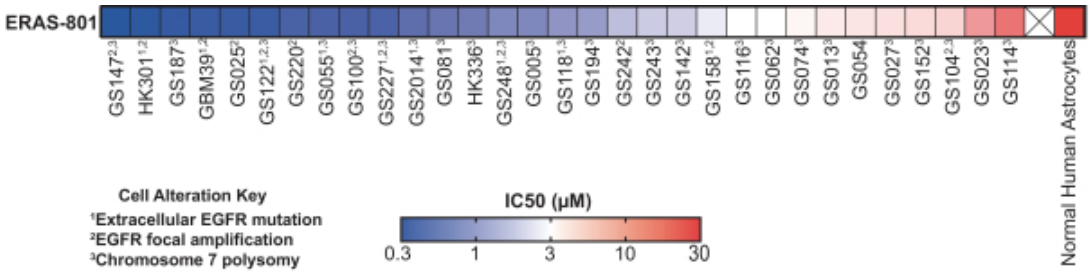
*Preclinical profile of ERAS-801*

In preclinical studies, ERAS-801 has demonstrated strong biochemical and cell-based potency, as well as strong biochemical selectivity. ERAS-801 has shown high potency against EGFR with a biochemical IC50 of 0.3 nM and high CNS penetration. It also showed high selectivity for EGFR based on a biochemical screen of 484 kinases in which ERAS-801 at 10 µM inhibited only two non-EGFR family kinases at greater than 90%.



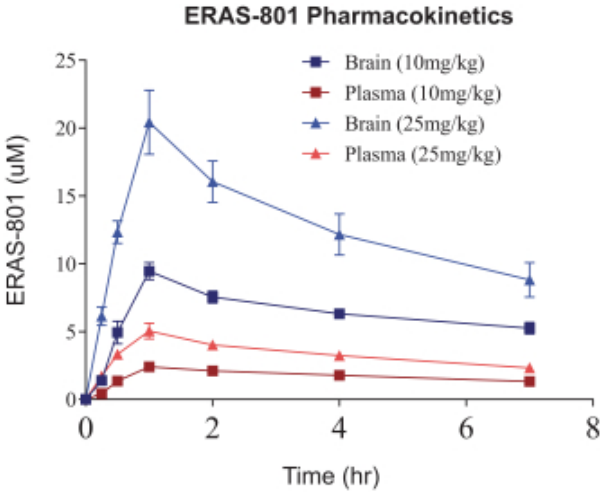

*The biochemical activities of ERAS-801 and two approved compounds that are active against EGFR, erlotinib and lapatinib, were characterized at a single concentration (10 µM) in kinome screens. Inhibitory activity has been mapped onto a kinase phylogenetic tree where related kinases within 8 kinase groups are grouped by color (top row). Red circles indicate kinases where inhibitory activity has been observed; the diameter of the circle represents the strength of inhibition (i.e., large circles mean greater inhibitory activity). Activity against atypical and mutant kinases are shown in the bottom row.*

In cell-based assays, ERAS-801 was potent against wildtype EGFR with an IC50 of 1.1 nM and EGFRvIII with an IC50 of 0.7 nM. In a 31 patient-derived glioma cell panel, ERAS-801 inhibited the growth of 65% of glioma cells with IC50 values less than 3 µM. This glioma cell panel included the most frequent types of EGFR alterations observed in GBM: amplification, EGFRvIII, extracellular domain mutations (e.g., A289V and A289D), and chromosome 7 polysomy. ERAS-801 showed no activity in normal human astrocytes (i.e., IC50 greater than 25 µM), which is the most common cell type in the human brain. ERAS-801's lack of activity against this normal brain cell type demonstrated that ERAS-801 selectively inhibited EGFR and that these normal brain cells were not dependent on EGFR signaling.



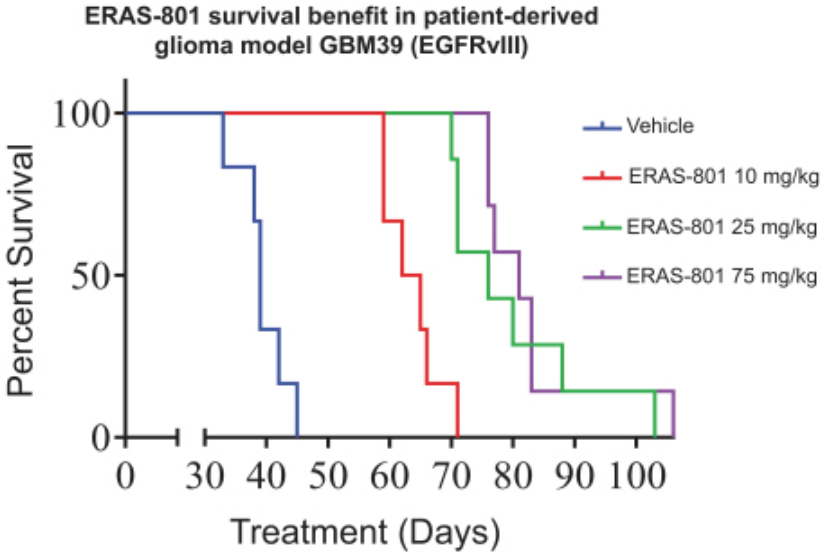

*ERAS-801 showed broad activity in a panel of 31 patient-derived glioma cell lines. Demonstrating selectivity, ERAS-801 showed no activity in normal human astrocyte cells. Lower IC50 values, in blue, indicated stronger activity. The EGFR mutation status of the GBM patient-derived cells is indicated by symbols. Mutations include extracellular domain EGFR mutations and EGFR splice variants, such as EGFRvIII. Focal amplification indicates a high-level gain of the chromosomal region that includes the EGFR gene locus. Polysomy indicates cells that harbor more copies of chromosome 7, which contained the EGFR gene, than expected in a normal cell. Two copies of chromosome 7 are expected in normal cells.*

In vivo studies showed that total ERAS-801 concentration was present in the brain by a factor of 3.7x relative to plasma, and its unbound concentration in the brain was 1.2x higher than in plasma. This high CNS penetration translated into enhanced in vivo survival benefit, which was observed in the EGFRvIII mutant patient-derived glioma model GBM39. In this study, ERAS-801 significantly extended the survival of mice at 10 mg/kg, 25 mg/kg, and 75 mg/kg doses relative to vehicle control (p-value < 0.05). Relative to vehicle control, significant survival benefit was observed in four additional patient-derived glioma models that harbor EGFRvIII, EGFR amplified, or chromosome 7 polysomy mutations (p-value < 0.001). These preclinical in vivo data highlight ERAS-801's potent CNS activity against EGFR mutant GBM, which comprises 40-60% of all GBM.

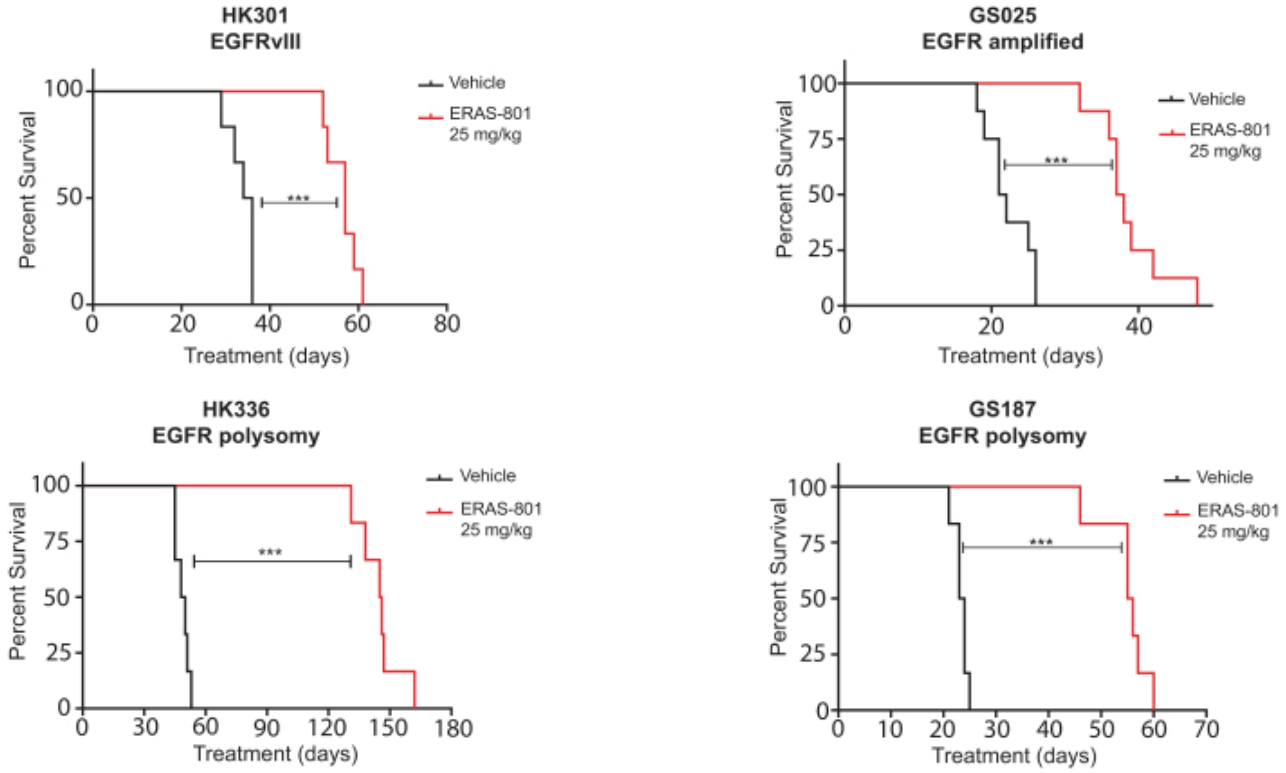



| Dose (mg/kg) | Tissue | $AUC_{0\text{-}7hr}$ (μM*hr) | Brain / Plasma (total, %) |
|---|---|---|---|
| 10 | Brain | 44.2 | 369% |
| | Plasma | 12.0 | |
| 25 | Brain | 89.1 | 387% |
| | Plasma | 23.0 | |

*ERAS-801 plasma and brain concentrations in mice that have been administered a single dose of ERAS-801 at 10 mg/kg or 25 mg/kg. The table summarizes the PK profiles shown in the graph.*




***ERAS-801 showed dose-dependent survival benefit in the in vivo GBM PDX model GBM39, which harbored the EGFRvIII splice variant.***




***ERAS-801 showed significant survival benefit in multiple glioma PDX models that harbored a variety of EGFR mutations. ***p-value < 0.001.***

*Development strategy for ERAS-801*

We believe that ERAS-801 could provide benefit to approximately 125,000 patients with GBM worldwide per year. GBM is a difficult-to-treat, aggressive cancer that can occur in the brain or spinal cord. Current therapy consists primarily of surgical resection of the tumor, followed by radiation and chemotherapy. Once GBM recurs, therapeutic options for patients are limited. EGFR amplifications and mutations are detected in 40-60% of GBM cases and are generally indicative of poor prognosis. We expect to file an IND in the first quarter of 2022, and thereafter initiate a first-in-human trial in refractory GBM that will evaluate the safety, PK, and PD effects of ERAS-801 as a single agent. Preliminary evaluation of anti-tumor activity will also be performed in patients who have tumors harboring alterations in EGFR.

***ERAS-12: our EGFR D2/D3 bispecific antibody program***

Inhibition of wildtype EGFR signaling mediated by overexpression of EGFR has shown promise in treating various tumors, including HNSCC and CRC. In tumors where overexpression of EGFR is thought to be the primary driver of EGFR signaling, an antibody-based approach is the most effective way to target the receptor, and approved antibodies have demonstrated good tolerability as well as activity by inhibiting EGFR activation and mediating antibody-dependent cellular cytotoxicity (ADCC), a process by which the antibody alerts the immune system to attack the bound tumor cell. However, all approved anti-EGFR antibodies target domain III (D3) only, which is the inactive conformation of wildtype EGFR, and no approved antibodies target domain II (D2), which is

the active, ligand binding, conformation of wildtype EGFR. Antibodies targeting D2 are expected to be more effective when epidermal growth factor (EGF) or other members of the EGF family are overexpressed.

We are developing a bispecific antibody that is active against both the inactive and active conformations of wildtype EGFR, and we anticipate filing an IND for this program by 2024.

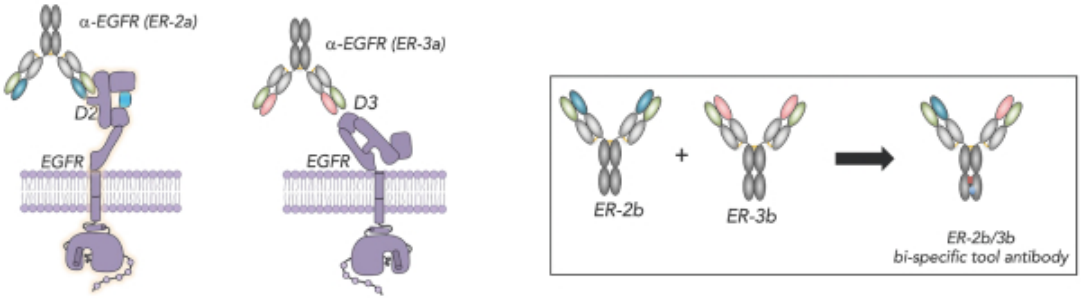
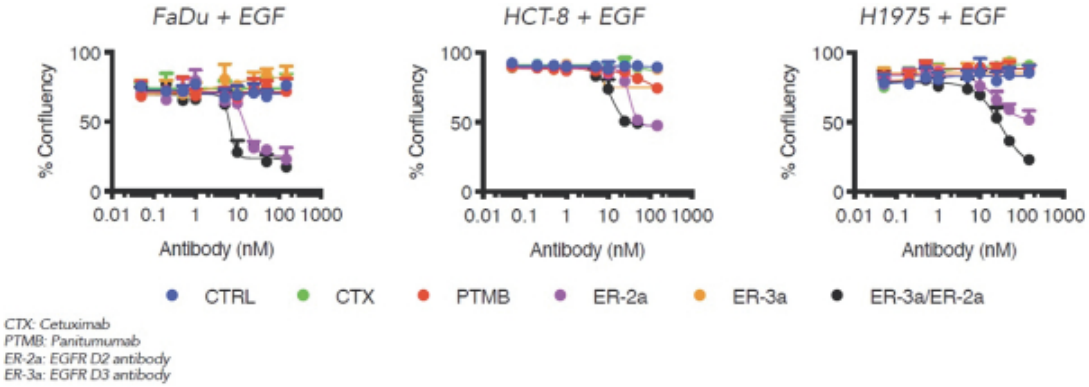



***Diagram (A) visualizes the EGFR antibody ER-2a binding to the extracellular domain II of EGFR wildtype (purple), which is accessible when EGFR is in the active state. EGFR assumes an active state conformation when its ligand is bound (the bound ligand is shown in blue). Diagram (B) visualizes the EGFR antibody ER-3a binding to the extracellular domain III of EGFR wildtype (purple), which is accessible when EGFR is in the inactive state. In the rectangle, the portion of ER-2b that recognizes domain II of EGFR and the portion of ER-3b that recognizes domain III of EGFR are combined into a bispecific antibody that binds EGFR in both states.***

By binding to EGFR in the active D2 state, our D2/D3 bispecific antibody can likely better prevent EGFR dimerization and can potentially achieve higher levels of EGFR inhibition than currently approved EGFR antibodies. Achieving a higher level of EGFR inhibition may better control tumor growth and delay the emergence of resistance mechanisms involving EGFR that spends more time in the active conformation.

Targeting D2 via the ER-3a/2a and ER-2a antibodies show a concentration-dependent inhibition of cancer cell proliferation.




***The bispecific antibody ER-3a/ER-2a and EGFR active state-binding antibody ER-2a inhibited cell growth in FaDu, an HNSCC cell line, and HCT-8, a CRC cell line, and the NSCLC cell line H1975. FaDu and HCT-8 expressed wildtype EGFR and H1975 expressed EGFR with two kinase domain mutations, L858R and T790M. EGFR's ligand, EGF, was added to these cells to further stimulate EGFR activity and model environments where EGF is expressed. As expected, only the two antibodies that recognized the active state of EGFR, ER-3a/ER-2a, inhibited the proliferation of all three cell lines, as indicated by a reduced confluency percentage.***

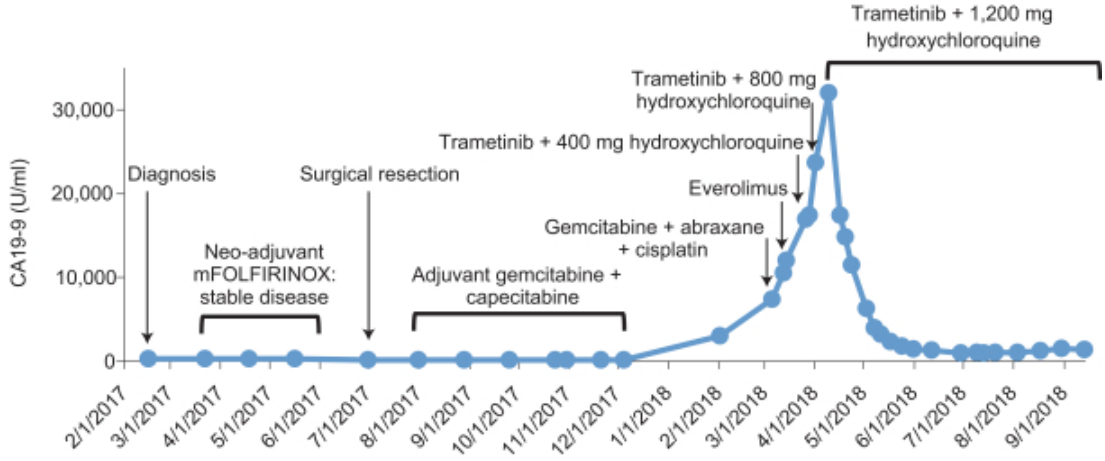
Over 1.8 million patients with cancer annually worldwide could benefit from development of a wildtype targeting EGFR therapy that potently inhibits both the inactive and active conformations of EGFR, either as a monotherapy or as a combination.

***ERAS-5: our ULK program***

The ULK1 and ULK2 kinases are key regulators of the metabolic process known as autophagy. Under physiological conditions, cells utilize autophagy to recycle cellular components, breaking down older components that may be malfunctioning due to age and stress into subunits that are combined to form new components. This process can act as a survival mechanism during stress, such as nutrient starvation, by enabling cells to break down non-critical cellular components to support critical functions. Autophagy can be upregulated in tumor cells where RAS/MAPK pathway signaling is inhibited, acting as an escape route mechanism by preventing tumor cell death.

To pursue our therapeutic strategy of targeting escape routes, our ERAS-5 program is focused on developing potent, selective inhibitors of ULK1/2 so that we can further boost tumor cell death in combination with our RAS/MAPK pathway inhibitors. We have identified a promising ERAS-5 compound that showed strong potency, target engagement, inhibition of autophagy, and selectivity. In a biochemical assay, it exhibited IC50s of 2.4 nM and 2.6 nM against ULK1 and ULK2, respectively. In cell-based assays, this compound showed an IC50 of 13.4 nM in an ULK1 target engagement assay and an IC50 of 5.9 nM in an autophagy pathway activity assay that visualized GFP-labeled LC3 puncta (LC3 proteins localize on autophagosomes and, when labeled with a fluorophore, can enable quantification of autophagosomes by microscopy; higher numbers of autophagosomes in the cell, which are generated during the autophagy process, indicate higher levels of autophagy). Our promising ERAS-5 compound also showed biochemical selectivity—greater than 375x selectivity against TBK1 and greater than 240x selectivity against AMPK, two off-target kinases that are commonly inhibited by other ULK inhibitors with published structures.

We believe that agents targeting the RAS/MAPK pathway could benefit from combination with an ULK1/2 inhibitor, addressing up to 2.6 million patients with cancer annually worldwide. This includes over 400,000 patients with RAS mutant pancreatic cancer since pancreatic cancer tumors have upregulated RAS/MAPK pathway signaling and autophagy may already be upregulated due to these tumors growing in nutrient poor environments. As shown below, a promising clinical case report showed that combining a non-specific autophagy inhibitor, hydroxychloroquine, with a RAS/MAPK pathway inhibitor, trametinib, meaningfully reduced tumor burden in a patient with metastatic pancreatic cancer. The patient's level of CA19-9, a blood-based marker of overall tumor burden, rapidly decreased upon initiation of this combination therapy and remained low through 5 months of treatment. This patient had previously progressed on multiple chemotherapy regimens and an mTOR inhibitor, everolimus.




*In a patient with metastatic pancreatic cancer, the combination of an autophagy inhibitor, hydroxychloroquine, with a RAS/MAPK pathway inhibitor, trametinib, resulted in a steep reduction of overall tumor burden as represented by a decrease in CA19-9. Higher tumor burden levels are shown as higher concentrations of CA19-9. The x-axis represents dates within the patient's treatment journey and the y-axis is the detected concentration of CA19-9. Prior to initiation of trametinib and hydroxychloroquine treatment, the patient was treated with chemotherapy regimens mFOLFIRINOX (folinic acid [leucovorin], fluorouracil, irinotecan, and oxaliplatin), gemcitabine, and capecitabine, and gemcitabine, abraxane, and cisplatin. After progressing on the gemcitabine, abraxane, and cisplatin triplet, the patient was treated with an mTOR inhibitor, everolimus. The patient progressed on everolimus and was then treated with trametinib at 2 mg QD in combination with escalating doses of hydroxychloroquine up to 1,200 mg QD. The combination of trametinib at 2 mg QD with hydroxychloroquine at 1,200 mg resulted in a significant decrease in overall tumor burden that continued through 5 months of treatment.*

***ERAS-9: our SOS1 program***

SOS1 is a protein that binds to RAS and enables it to transition from the inactive RAS-GDP state to the active RAS-GTP state. RAS proteins bind GDP tightly, and a cofactor, such as a SOS1, is required to facilitate RAS's release of GDP followed by its binding to GTP. Without this cofactor, RAS will accumulate in the inactive state as active state RAS hydrolyzes bound GTP. We are developing small molecule inhibitors in our ERAS-9 program that obstruct SOS1-RAS binding and thereby prevent RAS from cycling to the active RAS-GTP state. SOS1-RAS inhibition can prevent RAS activation mediated by upstream signaling (e.g., via EGFR activation) and can be

combined with downstream RAS/MAPK pathway inhibitors to potentially address RAS and RAF mutations that result in constitutive RAS/MAPK pathway signaling. SOS1-RAS inhibitors can address as many as 4.9 million patients with cancer who harbor RAS/MAPK pathway activating mutations annually worldwide either as a monotherapy or in combination therapies.

***ERAS-10: our protein degrader program***

We are exploring protein degradation as an alternative mechanism to complement our approach of enzymatically inhibiting oncogenic proteins. Degrader molecules bind to a target oncogenic protein and cellular machinery that label proteins for degradation. Within proximity of each other, the degrader machinery labels the target protein through a process called ubiquitination, and the labeled protein is degraded. Degraders can offer advantages over enzymatic inhibitors, such as the ability of a single degrader molecule to tag many copies of the target oncoprotein for degradation and the ability of a degrader to more effectively inhibit the function of non-enzymatic proteins. We think this approach will allow us to target a broader range of proteins within the RAS/MAPK pathway and may help us more effectively target a subset of oncogenic proteins than via enzymatic inhibition alone.

***ERAS-11: our MYC program***

MYC is a transcription factor that is mutated in 40% of cancers, affecting approximately 7.7 million patients with cancer annually worldwide. These mutations promote cancer by hyperactivating MYC and/or its protein dimerization partners (e.g., MAX). Inhibiting MYC by disrupting its ability to dimerize with other proteins or bind DNA has been pursued for over 20 years but has not yet been successful. We are exploring novel approaches to targeting MYC utilizing our internal discovery expertise complemented with partnerships to overcome the challenges that have prevented the successful development of MYC protein inhibitors.

## Our acquisition and license agreements

***Asana BioSciences***

In November 2020, we entered into an agreement and plan of merger with Asana and ASN Product Development, Inc. (ASN) (the Asana Merger Agreement), pursuant to which ASN became our wholly-owned subsidiary. Asana and ASN had previously entered into a license agreement, which was amended and restated prior to the closing of the merger transaction (the Asana License Agreement, and collectively with the Asana Merger Agreement, the Asana Agreements), pursuant to which ASN acquired an exclusive, worldwide license to certain intellectual property rights relating to inhibitors of ERK1 and ERK2 owned or controlled by Asana to develop and commercialize ERAS-007 and certain other related compounds for all applications. We have the right to sublicense (through multiple tiers) the licensed rights under the Asana Agreements, subject to certain conditions. The foregoing license is subject to Asana's non-exclusive right to practice the licensed rights to research and conduct preclinical pharmacology activities with a specified combination of compounds, subject to certain specified conditions. Pursuant to the Asana License Agreement, neither Asana nor ASN can directly or indirectly exploit certain classes of competing products, subject to specified exceptions. In addition, we are required to use commercially reasonable efforts to develop and obtain regulatory approval for ERAS-007 in the United States, at least one major market country in Europe, and either China or Japan.

Under the Asana Merger Agreement, we made an upfront payment of $20 million and issued 4,000,000 shares of our Series B-2 convertible preferred stock to Asana. We are obligated to make future development and regulatory milestone cash payments for a licensed product in an amount of up to $90 million. Additionally, upon achieving a development milestone related to demonstration of successful proof-of-concept in a clinical trial, we will be required to issue 4,666,667 shares of our common stock to Asana. We are not obligated to pay royalties on the net sales of licensed products.

Upon our payment to Asana of all merger consideration, including upfront cash and equity payments, the milestone payments, the equity payment related to the proof-of-concept development milestone, and all other development milestone payments, with the exception of a specific milestone that does not need to be achieved at such time and will remain subject to payment in the event that such milestone occurs at a later time, all licensed rights will become fully paid-up, perpetual, and irrevocable. The License Agreement may be terminated by either Asana or us in the event of an uncured material breach by the other party. Asana also has the right to terminate the Asana License Agreement if we fail to engage in material activities in support of clinical development and commercialization of ERAS-007 for a period of 12 consecutive months, excluding reasons outside of our reasonable control and subject to certain limitations. However, Asana's right to terminate the Asana License Agreement for any reason ends once we have paid to Asana all merger consideration, or if Asana's equity interest in us becomes publicly traded and exceeds a certain threshold value. We may terminate the Asana License Agreement at any time upon the provision of prior written notice to Asana.

***NiKang Therapeutics***

In February 2020, we entered into a license agreement (the NiKang Agreement) with NiKang Therapeutics, Inc. (NiKang) under which we were granted an exclusive, worldwide license to certain intellectual property rights owned or controlled by NiKang related to certain SHP2 inhibitors to develop and commercialize ERAS-601 and certain other related compounds for all applications. We have the right to sublicense (through multiple tiers) our rights under the NiKang Agreement, subject to certain conditions, and are required to use commercially reasonable efforts to develop and commercialize licensed products. The parties are obligated to negotiate in good faith for a certain period of time to grant NiKang the exclusive commercial distribution rights in greater China once a licensed product reaches a certain development stage.

Under the NiKang Agreement, we made an upfront payment of $5 million to NiKang and reimbursed NiKang $0.4 million for certain initial manufacturing costs. In addition, we paid an additional $7 million after publication of a US patent application that covered the composition of matter of ERAS-601. We are also obligated to pay (i) development and regulatory milestone payments in an aggregate amount of up to $16 million for the first licensed product and $12 million for a second licensed product, and (ii) commercial milestone payments in an aggregate amount of up to $157 million for the first licensed product and $151 million for a second licensed product. We are also obligated to: (i) pay tiered royalties on net sales of all licensed products in the mid-single digit percentages, subject to certain reductions; and (ii) equally split net sublicensing revenues earned under sublicense agreements that we enter into with any third party before commencement of the first Phase I clinical trial for a licensed product.

The NiKang Agreement will expire upon the last to expire royalty term, which is determined on a licensed product-by-licensed product and country-by-country basis, and is the later of (i) ten years from the date of first commercial sale, (ii) the last to expire valid claim within the licensed patent rights covering such licensed product, or (iii) the expiration of all regulatory exclusivity for the licensed product in such country. Upon expiration of the NiKang Agreement, on a licensed product-by-licensed product and country-by-country basis, we will have a fully paid-up, non-exclusive license to conduct research and to develop and commercialize the licensed products.

The NiKang Agreement may be terminated in its entirety by NiKang in the event of our uncured material breach, which includes our failure to use commercially reasonable efforts to satisfy certain specified clinical

development diligence milestones. In addition, NiKang may terminate if we, directly or indirectly, commence a legal action challenging the validity or enforceability of any licensed patents. Further, if we acquire more than 50% of the equity or assets of a company that owns a competing small molecule that is designed to prevent the same target as set forth in the NiKang Agreement from switching to an enzymatically active state, then we must either divest such competing product or terminate the NiKang Agreement. We may terminate the NiKang Agreement at any time upon the provision of prior written notice to NiKang. Upon termination of the NiKang Agreement for any reason, all rights and licenses granted to us, as well as any sublicenses that we granted thereunder, will terminate. In addition, upon any termination (but not expiration) of the NiKang Agreement and upon NiKang's request, the parties are obligated to meet and negotiate in good faith the terms of a license from us to NiKang to allow NiKang's continued development, manufacture, and commercialization of the licensed products.

***Katmai Pharmaceuticals***

In March 2020, we entered into a license agreement (the Katmai Agreement) with Katmai Pharmaceuticals, Inc. (Katmai) under which we were granted an exclusive, worldwide, royalty-bearing license to certain patent rights and know-how controlled by Katmai related to the development of small molecule therapeutic and diagnostic products that modulate EGFR and enable the identification, diagnosis, selection, treatment, and/or monitoring of patients for neuro-oncological applications to develop, manufacture, use, and commercialize ERAS-801 and certain other related compounds in all fields of use. We have the right to sublicense (through multiple tiers) our rights under the Katmai Agreement, subject to certain limitations and conditions, and are required to use commercially reasonable efforts to develop, manufacture, and commercialize licensed products and to meet certain specified development and launch milestones by certain dates. We are obligated to use commercially reasonable efforts to develop the licensed products first for use within the neuro-oncology field before expanding our development efforts to include other indications in the oncology field. Following the first achievement of a clinical proof-of-concept for any indication, we have the right to submit a non-binding offer to Katmai for (i) the purchase of all licensed patent rights, know-how, and other assets owned by Katmai that are necessary or useful for the exploitation of the licensed products or (ii) for the purchase of Katmai. Pursuant to the Katmai Agreement, neither Katmai nor we can directly or indirectly exploit certain specified classes of competing products.

The license granted under the Katmai Agreement is subject to The Regents of the University of California's reserved right to (i) use the licensed patent rights and know-how for educational and non-commercial research purposes, and to publish results arising therefrom, and (ii) grant licenses to the licensed know-how to third parties without notice because the licensed know-how is non-exclusively licensed to Katmai by The Regents of the University of California. Further, the license granted under the Katmai Agreement is subject to the rights of the United States government under the Bayh-Dole Act, including (i) a non-exclusive, non-transferable, irrevocable, paid-up license to practice or have practiced the invention claimed by the licensed patent rights throughout the world and (ii) the obligation that any licensed products used or sold in the United States be manufactured substantially in the United States.

Under the Katmai Agreement, we made an upfront payment of $5.7 million and Katmai agreed to purchase shares of our Series B-1 convertible preferred stock and Series B-2 convertible preferred stock having an aggregate value of $2.7 million. We are obligated to make future development and regulatory milestone payments of up to $26 million and commercial milestone payments of up to $101 million. We are also obligated to pay tiered royalties on net sales of each licensed product, at rates ranging from the mid- to high-single digit percentages, subject to a minimum annual royalty payment in the low six figures and certain permitted deductions.

Our royalty obligations and the Katmai Agreement will expire, on a licensed product-by-licensed product and country-by-country basis, on the earlier of (i) the ten-year anniversary of the expiration of all valid claims included in the licensed patents covering the composition of matter or method of use of such licensed product in such country or (ii) the twentieth anniversary of the first commercial sale of such licensed product in such country. Upon the expiration of the Katmai Agreement, we will have a fully paid-up and irrevocable license.

The Katmai Agreement may be terminated in its entirety by either party (i) in the event of an uncured material breach by the other party or (ii) in the event the other party becomes subject to specified bankruptcy, insolvency, or similar circumstances. Provided that we are in full compliance with the Katmai Agreement, we may terminate the Katmai Agreement upon written notice to Katmai. Upon termination of the Katmai Agreement for any reason, all rights and licenses granted to us thereunder will terminate. Upon termination of the Katmai Agreement, we are obligated, among other things, to (i) grant an exclusive license to Katmai under all of our right, title and interest in all inventions and know-how developed under the Katmai Agreement existing at the time of termination that are specific to the licensed compounds or products, including without limitation all data and results related to their exploitation and (ii) transfer to Katmai ownership and possession of all regulatory filings related to the licensed compounds and products. Unless the Katmai Agreement is terminated for our material breach, the parties will negotiate in good faith the financial terms pursuant to which the foregoing actions will be conducted, provided that our performance of such actions may not be conditioned upon the conduct or completion of such negotiations. If the parties are unable to agree upon such terms within the specified time period, then the parties will submit all unresolved matters for resolution by arbitration.

***Emerge LifeSciences***

In March 2021, we entered into an asset purchase agreement (the ELS Purchase Agreement) with ELS wherein we purchased all rights, title, and interest (including all patent and other intellectual property rights) to ELS's EGFR antibodies directed against the EGFR domain II (EGFR-D2) and domain III (EGFR-D3) as well as a bispecific antibody where one arm is directed against EGFR-D2 and the other is directed against EGFR-D3 (the Antibodies). Under the ELS Purchase Agreement, we issued to ELS 600,000 shares of our common stock and made an upfront payment of $2 million. We are not obligated to pay royalties on the net sales of products covered by the acquired intellectual property. Under the ELS Purchase Agreement, ELS is committed to performing certain studies on the Antibodies to assist in development activities, the costs of which shall be mutually agreed upon and for which we will be responsible.

Pursuant to the ELS Purchase Agreement, at any time between 12 months and 36 months after the effective date of the ELS Purchase Agreement, if we reasonably determine that none of the Antibodies should be taken into human clinical trials due to safety, efficacy or CMC issues, then we have the option to select another antibody developed and solely owned by ELS that is not the subject of a license, collaboration, or option to a third party (the Option). If we elect to exercise the Option, then ELS will provide to us a list of all available antibodies that meet the aforementioned requirements, and we have the right to select one antibody from the list. Upon our selection of an antibody, ELS will assign us all rights, title and interest to such antibody (including patent and other intellectual property rights) subject to any pre-existing obligations or restrictions. In the event that we wish to have ELS conduct any studies on such optioned antibody, then after mutual agreement as to the scope of the studies, we will be responsible for the cost for such studies.

***LifeArc***

In April 2020, we entered into a license agreement with LifeArc (the LifeArc Agreement) under which we were granted an exclusive, worldwide license to certain materials, know-how, and intellectual property rights owned

or controlled by LifeArc to develop, manufacture, use, and commercialize certain ULK inhibitors for all applications. We also have the right to sublicense (through multiple tiers) our rights under the LifeArc Agreement, subject to certain conditions. The foregoing license is subject to LifeArc's retained non-exclusive, irrevocable, worldwide, sublicensable (to its academic collaborators), royalty-free right to use the licensed intellectual property rights within all fields of use for LifeArc's own non-commercial, non-clinical academic research. Notwithstanding its retained rights, LifeArc will not seek to develop or undertake any other ULK1/2 therapeutic development programs either in-house or via third parties until April 2025. We are required to use diligent efforts to achieve certain development and regulatory milestones with respect to submission of an IND, initiation of clinical trials, submission of an NDA, and commencement of commercial sales.

Under the LifeArc Agreement, we were granted the license at no upfront cost and a period of three months after the effective date to conduct experiments on LifeArc's compounds. Upon completion of this initial testing period, we had the option to continue the license and make a one-time license payment of $75,000 to LifeArc, which payment was subsequently made. We are obligated to make future development milestone payments for a licensed product of up to $11 million and sales milestone payments of up to $50 million. We are also obligated to pay royalties on net sales of all licensed products, in the low-single digit percentages, subject to certain reductions.

Our royalty obligations and the LifeArc Agreement will expire, on a licensed product-by-licensed product and country-by-country basis, on the later of (i) ten years from the date of first commercial sale, (ii) when there is no longer a valid patent claim covering such licensed product, or (iii) expiration of regulatory exclusivity for the licensed product in such country. Upon expiration of the LifeArc Agreement, all rights and licenses granted to us and under the LifeArc Agreement will continue on a fully paid-up basis.

The LifeArc Agreement may be terminated in its entirety by either LifeArc or us in (i) the event of an uncured material breach by the other party or (ii) in the event the other party becomes subject to an order by a court of competent jurisdiction for winding-up or dissolution or similar circumstances. Further, LifeArc may terminate the LifeArc Agreement by giving written notice to us if (i) we fail to comply with our diligence obligations and fail to take remedial actions, (ii) we fail to agree on a mechanism to cure a persistent breach, or (iii) we fail to provide proof of the insurance coverage as required under the LifeArc Agreement. We may terminate the agreement at any time upon the provision of written notice to LifeArc.

Upon termination of the LifeArc Agreement for any reason, all rights and licenses granted to us, as well as any sublicenses we granted thereunder, will terminate. In addition, upon termination of the LifeArc Agreement for any reason other than its natural expiration or termination by us for LifeArc's material breach, LifeArc has an option to negotiate an exclusive, worldwide, sublicensable license to commercialize any patent rights, technical and clinical data, and any development results relating to the licensed products that are owned or controlled by us for the purpose of developing, manufacturing and commercializing the licensed products on terms to be negotiated between the parties.

***University of California, San Francisco***

In December 2018, we entered into a license agreement, as amended (the UCSF Agreement), with The Regents of the University of California, San Francisco (the Regents), under which we were granted an exclusive, worldwide, royalty-bearing license under certain patent rights claiming novel covalent inhibitors of GTP- and GDP-bound RAS for the development and commercialization of products covered by such patent rights for the prevention, treatment and amelioration of human cancers and other diseases and conditions. We have the right to sublicense (through multiple tiers) our rights under the UCSF Agreement, subject to certain conditions. The UCSF Agreement was amended in May 2021. The foregoing license is subject to various retained rights and restrictions, including (i) the Regents' reserved right to make, use and practice the licensed patent rights and

any technology relating thereto for educational and research purposes, (ii) Howard Hughes Medical Institute's non-exclusive, fully paid-up, irrevocable worldwide license to use the licensed patent rights for research purposes, (iii) Howard Hughes Medical Institute's statement of policy on research tools, and (iv) the obligations to the US government under the Bayh-Dole Act, including the obligation to report on the utilization of the invention covered by the licensed patent rights and a non-exclusive, non-transferable, irrevocable, paid-up license to practice or have practiced such invention throughout the world. We are required to use diligent efforts to proceed with the development and commercialization of licensed products including by achieving certain milestone events within the specified time periods.

Under the UCSF Agreement, we made upfront payments of $50,000 to the Regents and pay the Regents an annual license maintenance fee, but such fee will not be due on any anniversary if, on that date, we are making royalty payments to the Regents. We are obligated to make future development and regulatory milestone payments of up to $6.4 million and a sales milestone payment of $2 million for either of the first two licensed products. We are also obligated to pay royalties on net sales of all licensed products in the low-single digit percentages, subject to a minimum annual royalty payment in the low six figures, commencing on the year of the first sale of a licensed product and continuing, on a licensed product-by-licensed product and country-by-country basis, until there are no valid claims of the licensed patent rights covering the licensed product in such country. Additionally, we are obligated to pay tiered sublicensing fees ranging from low double digit percentages to up to 30% on certain fees we receive from any sublicense that we grant, depending on the stage of development of a licensed product when such sublicense is granted. Prior to the execution of the amendment, we were obligated to make a cash payment to the Regents in the event of our initial public offering, a change of control transaction or a reverse merger (the Corporate Milestone). In the amendment, the amount of the cash payment payable upon our achievement of a Corporate Milestone was reduced and we agreed to issue the Regents 1,133,935 shares of our common stock, which issuance is not contingent upon the achievement of a Corporate Milestone and occurred in May 2021.

The UCSF Agreement will expire upon the expiration of the last of the licensed patent rights. The UCSF Agreement may be terminated in its entirety by the Regents (i) for our uncured breach; (ii) for our bankruptcy; or (iii) if we challenge, directly or indirectly, the validity or enforceability of any licensed patents. Further, if we fail to satisfy any diligence milestones, the Regents has the right and option to either terminate the UCSF Agreement or modify the exclusive license granted thereunder to a non-exclusive license. We may terminate the UCSF Agreement in its entirety or on a country-by-country basis at any time upon the provision of written notice to the Regents. Upon termination of the UCSF Agreement for any reason, all rights and licenses granted to us thereunder will terminate.

## Commercialization

We intend to maintain exclusive worldwide development and commercialization rights to our product candidates and, if marketing approval is obtained, to commence commercialization activities by building a focused sales and marketing organization to sell our products on our own in the United States and potentially other regions such as Europe. We will likely seek commercialization partnerships for our product candidates in other regions beyond the United States and Europe. We currently have no sales, marketing, or commercial product distribution capabilities. We intend to build the necessary infrastructure and capabilities over time for commercialization in the United States and potentially other regions, following further advancement of our product candidates. Clinical data, the size of the addressable patient population, the size of the commercial infrastructure and manufacturing needs, and the status of our pipeline, may all influence or alter our commercialization plans.

## Competition + Cooperation (“Coopetition”)

Although the biotechnology and pharmaceutical industries, and the oncology sector, are characterized by rapid evolution of technologies, fierce competition, and strong defense of intellectual property rights, we believe the most fearsome competitor of all is cancer itself. As such, we view other companies in this sector more as potential allies and collaborators than as competitors, as we all have a common cause: to defeat cancer. Many of the companies that are developing or marketing treatments for cancer, including major pharmaceutical and biotechnology companies that are working on therapies targeting the RAS/MAPK pathway, are companies with whom we endeavor to collaborate in our mission to erase cancer.

Collaborating with these companies alleviates some of the traditional challenges that emerging companies face with respect to financial resources, established presence in the market, expertise in research and development, manufacturing, preclinical and clinical testing, obtaining regulatory approvals and reimbursement, and marketing approved products. Similarly, recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, programs are challenges for all companies developing or marketing treatments for cancer.

That said, our commercial potential could be reduced or eliminated if other companies develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than products that we may develop. Other companies also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in these companies establishing a strong market position before we are able to enter the market or make our development more complicated.

There are numerous companies developing or marketing treatments for cancer, including many major pharmaceutical and biotechnology companies. These treatments consist of small molecule drug products, biologics, cell-based therapies, and traditional chemotherapy. There are also a number of pharmaceutical companies with product candidates in development that target the nodes involving the RAS/MAPK pathway. These include, among others, Amgen, AstraZeneca, Black Diamond Therapeutics, BioMed Valley Discoveries, Boehringer Ingelheim, Deciphera Pharmaceuticals, Eli Lilly, Jacobio Pharmaceuticals (in collaboration with AbbVie), Janssen, Merck, Mirati Therapeutics, Navire Pharma (a subsidiary of BridgeBio), Novartis, Pfizer, Relay Therapeutics (in collaboration with Genentech), Revolution Medicines, Roche/Genentech, Sanofi, and Schrödinger (in collaboration with Bristol Myers Squibb).

## Intellectual property

We strive to protect the proprietary technology, inventions, and improvements that are commercially or strategically important to our business, including seeking, maintaining, and defending patent rights, whether developed internally or in-licensed/acquired from third parties. We also rely on trade secrets and know-how relating to our proprietary technology and product candidates and continuing innovation to develop, strengthen and maintain our proprietary position. We also plan to rely on data exclusivity, market exclusivity and patent term extensions when available. Our commercial success will depend in part on our ability to obtain and maintain patent and other intellectual property protection for our proprietary technology, inventions and improvements; to preserve the confidentiality of our trade secrets; to defend and enforce our proprietary rights, including any patents or trademarks that we may own in the future; and to operate without infringing on the valid and enforceable patents and other proprietary rights of third parties. Intellectual property rights may not address all potential threats to our competitive advantage.

We continually assess and refine our intellectual property strategy as we develop new product candidates. To that end, we are prepared to file additional patent applications in any appropriate fields if our intellectual property strategy includes such filings, or where we seek to adapt to competition or seize business

opportunities. Further, we are prepared to file patent applications, as we consider appropriate under the circumstances, relating to the new technologies that we develop.

We cannot be sure that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications we may own or license in the future, nor can we be sure that any of our existing patents or any patents we may own or license in the future will be useful in protecting our technology.

To cover our proprietary technologies and our current pipeline of proprietary product candidates and related methods, such as methods of use, we have issued patents and patent applications representing 16 patent families. As of May 31, 2021, our patent estate, which consists of owned and in-licensed patent families, includes four issued US patents, eight pending US non-provisional patent applications, 14 pending US provisional patent applications, one issued foreign patent, four pending international patent applications filed under the Patent Cooperation Treaty (PCT application), and 67 pending foreign patent applications in various markets outside of the United States. In particular, we have patent applications pending for each of our product candidates.

***ERAS-007***

As of May 31, 2021, we have in-licensed two patent families from Asana. The two patent families relate to ERK 1/2 inhibitors, their preparation and methods of use. One of the families covers the ERAS-007 product candidate compound, its preparation and method of use, and includes two issued US patents, one pending US non-provisional patent application, one issued foreign patent, and 14 pending foreign patent applications. This patent family also includes one issued US patent that covers additional ERK1/2 inhibitor compounds. The second family covers methods of using ERAS-007, and includes one pending PCT application and two pending foreign patent applications. The issued US patents are expected to expire in June 2036, absent any patent term adjustments or extensions. Any patents issued from the patent applications related to ERAS-007 are expected to expire between 2036 and 2040, absent any patent term adjustments or extensions.

As of May 31, 2021, we also own one patent family relating to ERAS-007. The patent family includes one pending US provisional patent application. Any patents issued from this patent application are expected to expire in 2042, absent any patent term adjustments or extensions.

***ERAS-601***

As of May 31, 2021, we have in-licensed two patent families from NiKang. The two patent families relate to SHP2 inhibitor compositions, their preparation and methods of use. One of the families covers the ERAS-601 product candidate compound, its preparation and method of use, and includes one issued US patent, two pending US non-provisional patent applications, and 24 pending foreign patent applications. The second family covers additional SHP2 inhibitor compositions, their preparation and methods of use, and includes one pending US non-provisional application and six pending foreign patent applications. The granted patent and any further patents issued from these applications from the two families are expected to expire in 2039, absent any patent term adjustments or extensions.

As of May 31, 2021, we also own one patent family relating to ERAS-601. This family includes six pending US provisional patent applications. Any patents issued from these applications are expected to expire in 2041, absent any patent term adjustments or extensions.

***ERAS-1***

As of May 31, 2021, we own three patent families relating to KRAS G12C inhibitors, their preparation and method of use. These patent families include two pending US non-provisional patent applications, three pending US

provisional patent applications, two pending PCT applications, and two pending foreign applications. Any patents issued from the first family of applications are expected to expire in 2040, any patents issued from the second family of applications are expected to expire in 2041, and any patents issued from the third family of applications are expected to expire in 2042, in each case, absent any patent term adjustments or extensions.

***ERAS-801***

As of May 31, 2021, we have sub-licensed three patent families from Katmai, which Katmai in-licensed from the University of California, Los Angeles (UCLA). Two of the patent families relate to EGFR inhibitor compositions, their preparation and methods of use. The first patent family includes one pending US non-provisional patent application, and six pending foreign patent applications. The second patent family covers the ERAS-801 product candidate and includes one pending PCT application. The third patent family relates to a functional companion assay for brain cancer therapy and includes one pending US provisional patent application. Any patents issued from the first family of applications are expected to expire in 2038, any patents issued from the second family of applications are expected to expire in 2040, and any patents issued from the third family of applications are expected to expire in 2041, in each case, absent any patent term adjustments or extensions.

As of May 31, 2021, we also co-own with UCLA one patent family relating to EGFR inhibitor compositions, their preparation and methods of use. This patent family includes one US provisional patent application. Any patents issued from this application are expected to expire in 2041, absent any patent term adjustments or extensions.

***ERAS-2/3***

As of May 31, 2021, we have in-licensed one patent family from UCSF relating to covalent inhibitors of GTP- and GDP-bound RAS, their preparation and method of use. This patent family includes one pending US non-provisional patent application and 13 pending foreign patent applications. Any patents issued from these applications are expected to expire in 2037, absent any patent term adjustments or extensions.

***ERAS-4***

As of May 31, 2021, we own one patent family relating to KRAS G12D inhibitors, their preparation and method of use. The patent family includes one pending US provisional patent application. Any patents issued from this application are expected to expire in 2042, absent any patent term adjustments or extensions.

***ERAS-5***

As of May 31, 2021, we have in-licensed one patent family from LifeArc relating to ULK1/2 inhibitors, their preparation and method of use. The patent family includes one pending US provisional patent application. Any patents issued from this application are expected to expire in 2042, absent any patent term adjustments or extensions.

***Other IP programs or patents***

With respect to our product candidates and processes we intend to develop and commercialize in the normal course of business, we intend to pursue patent protection covering, when possible, compositions, methods of use, dosing and formulations. We may also pursue patent protection with respect to manufacturing and drug development processes and technologies. Obtaining and maintaining patent protection depends on compliance with various procedural, document submission, fee payment, and other requirements imposed by governmental patent agencies. We may not be able to obtain patent protections for our compositions, methods of use, dosing

and formulations, manufacturing and drug development processes and technologies throughout the world. Issued patents can provide protection for varying periods of time, depending upon the date of filing of the patent application, the date of patent issuance and the legal term of patents in the countries in which they are obtained. In general, patents issued for applications filed in the United States can provide exclusionary rights for 20 years from the earliest effective filing date. In addition, in certain instances, the term of an issued US patent that covers or claims an FDA-approved product can be extended to recapture a portion of the term effectively lost as a result of the FDA regulatory review period, which is called patent term extension. The restoration period cannot be longer than five years and the total patent term, including the restoration period, must not exceed 14 years following FDA approval. The USPTO may also adjust the term of a US patent to accommodate for delays caused by the USPTO during the prosecution of a US patent application. Congress has defined the conditions upon which an applicant can receive an adjustment to the term and such requirements are established in 35 USC 154(b). Similar provisions are available in Europe and other jurisdictions to extend the term of a patent that covers an approved drug. The term of patents outside of the United States varies in accordance with the laws of the foreign jurisdiction, but typically is also 20 years from the earliest effective filing date. However, the actual protection afforded by a patent varies on a product-by-product basis, from country-to-country, and depends upon many factors, including the type of patent, the scope of its coverage, the availability of regulatory-related extensions, the availability of legal remedies in a particular country, and the validity and enforceability of the patent. Patent terms may be inadequate to protect our competitive position on our products for an adequate amount of time. In the future, if and when our therapeutic candidates receive FDA approval, we expect to apply for patent term extensions on patents covering those therapeutic candidates. We intend to seek patent term extensions in any jurisdiction where these are available and where we also have a patent that may be eligible; however, there is no guarantee that the applicable authorities, including the USPTO and FDA, will agree with our assessment of whether such extensions should be granted, and even if granted, the length of such extensions.

The patent positions of companies like ours are generally uncertain and involve complex legal and factual questions. No consistent policy regarding the scope of claims allowable in patents in the field of biopharmaceuticals has emerged in the United States. The relevant patent laws and their interpretation outside of the United States is also uncertain. Changes in either the patent laws or their interpretation in the United States and other countries may diminish our ability to protect our technology or product candidates and could affect the value of such intellectual property. In particular, our ability to stop third parties from making, using, selling, offering to sell or importing products that infringe our intellectual property will depend in part on our success in obtaining and enforcing patent claims that cover our technology, inventions and improvements. We cannot guarantee that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications we may file in the future, nor can we be sure that any patents that may be granted to us in the future will be commercially useful in protecting our products, the methods of use or manufacture of those products. Moreover, even our issued patents do not guarantee us the right to practice our technology in relation to the commercialization of our products. Patent and other intellectual property rights in the pharmaceutical and biotechnology space are evolving and involve many risks and uncertainties. For example, third parties may have blocking patents that could be used to prevent us from commercializing our product candidates and practicing our proprietary technology, and our issued patents may be challenged, invalidated or circumvented, which could limit our ability to stop competitors from marketing related products or could limit the term of patent protection that otherwise may exist for our product candidates. In addition, the scope of the rights granted under any issued patents may not provide us with protection or competitive advantages against competitors with similar technology. Furthermore, our competitors may independently develop similar technologies that are outside the scope of the rights granted under any issued patents. For these reasons, we may face competition with respect to our product candidates. Moreover, because of the extensive time required for development, testing and regulatory review of a potential product, it is possible

that, before any particular product candidate can be commercialized, any patent protection for such product may expire or remain in force for only a short period following commercialization, thereby reducing the commercial advantage the patent provides.

We also rely on trade secrets to protect aspects of our technology and business not amenable to, or that we do not consider appropriate for, patent protection. We seek to protect this intellectual property, in part, by requiring our employees, consultants, outside scientific collaborators, sponsored researchers and other service providers and advisors to execute confidentiality agreements upon the commencement of employment or other relationship with us. In general, these agreements provide that confidential information concerning our business or financial affairs developed or made known to the individual during the course of the individual's relationship with us is to be kept confidential and not disclosed to third parties except in specific circumstances. In the case of employees, the agreements further provide that inventions and discoveries conceived or reduced to practice by the individual that are related to our business, or actual, or demonstrably anticipated, research or development, or made during normal working hours, on our premises or using our equipment, supplies, or proprietary information, are our exclusive property. In many cases our agreements with consultants, outside scientific collaborators, sponsored researchers and other service providers and advisors require them to assign, or grant us licenses to, inventions resulting from the work or services they render under such agreements or grant us an option to negotiate a license to use such inventions.

We seek trademark protection in the United States and in certain other jurisdictions where available and when we deem appropriate. We currently have registrations for our "ERASCA" mark in the United States as well as in over 20 foreign jurisdictions, including the European Union. We have also filed a trademark application in the United States for registration of our "MAPKLAMP" mark.

## Manufacturing

We do not own or operate, and currently have no plans to establish, any manufacturing facilities. We rely, and expect to continue to rely, on third parties for the manufacture of our product candidates for preclinical and clinical testing, as well as for commercial manufacture if any of our product candidates obtain marketing approval. We are working with our current manufacturers to ensure that we will be able to scale up our manufacturing capabilities to support our clinical plans. We are also in the process of locating and qualifying additional manufacturers to build redundancies into our supply chain. In addition, we rely on third parties to package, label, store, and distribute our product candidates, and we intend to rely on third parties for our commercial products if marketing approval is obtained. We believe that this strategy allows us to maintain a more efficient infrastructure by eliminating the need for us to invest in our own manufacturing facilities, equipment, and personnel while also enabling us to focus our expertise and resources on the design and development of our product candidates.

## Government regulation

Government authorities in the United States, at the federal, state and local level, and other countries extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, marketing and export and import of products such as those we are developing. A new drug must be approved by the FDA through the NDA process before it may be legally marketed in the United States.

### *US drug development process*

In the United States, the FDA regulates drugs under the federal Food, Drug, and Cosmetic Act, (FDCA), and its implementing regulations. The process of obtaining regulatory approvals and the subsequent compliance with

appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable US requirements at any time during the product development process, approval process or after approval may subject an applicant to administrative or judicial sanctions. These sanctions could include the FDA's refusal to approve pending applications, withdrawal of an approval, a clinical hold, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement, or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us.

The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests, animal studies and formulation studies in accordance with Good Laboratory Practice (GLP), regulations and other applicable regulations;
- submission to the FDA of an IND, which must become effective before human clinical trials may begin;
- approval by an IRB at each clinical site before each trial may be initiated;
- performance of adequate and well-controlled human clinical trials in accordance with GCP regulations to establish the safety and efficacy of the proposed drug for its intended use;
- submission to the FDA of an NDA;
- satisfactory completion of an FDA advisory committee review, if applicable;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the drug is produced to assess compliance with current MP, or cGMP, requirements to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity; and
- FDA review and approval of the NDA to permit commercial marketing of the product for particular indications for use in the United States.

Once a pharmaceutical candidate is identified for development, it enters the preclinical testing stage. Preclinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information and analytical data, to the FDA as part of the IND. An IND is a request for authorization from the FDA to administer an investigational new drug product to humans. The sponsor will also include a protocol detailing, among other things, the objectives of the first phase of the clinical trial, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated, if the first phase lends itself to an efficacy evaluation. Some preclinical testing may continue even after the IND is submitted. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, places the clinical trial on a clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. Clinical holds also may be imposed by the FDA at any time before or during clinical trials due to safety concerns about on-going or proposed clinical trials or non-compliance with specific FDA requirements, and the trials may not begin or continue until the FDA notifies the sponsor that the hold has been lifted. Submission of an IND therefore may or may not result in FDA authorization to begin a clinical trial.

All clinical trials must be conducted under the supervision of one or more qualified investigators in accordance with GCP regulations, which include the requirement that all research subjects provide their informed consent in writing for their participation in any clinical trial. They must be conducted under protocols detailing, among other things, the objectives of the trial, dosing procedures, subject selection and exclusion criteria and the

safety and effectiveness criteria to be evaluated. Each protocol must be submitted to the FDA as part of the IND as well as any subsequent protocol amendments, and timely safety reports must be submitted to the FDA and the investigators for serious and unexpected adverse events. An IRB at each institution participating in the clinical trial must review and approve each protocol before a clinical trial commences at that institution and must also approve the information regarding the trial and the consent form that must be provided to each trial subject or his or her legal representative, monitor the study until completed and otherwise comply with IRB regulations.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- ***Phase 1***: The product candidate is initially introduced into healthy human volunteers and tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion and, if possible, to gain an early indication of its effectiveness. In the case of some products for severe or life-threatening diseases, such as cancer, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients. Sponsors sometimes designate their Phase 1 clinical trials as Phase 1a or Phase 1b. Phase 1b clinical trials are typically aimed at confirming dosing, pharmacokinetics and safety in larger number of patients. Some Phase 1b studies evaluate biomarkers or surrogate markers that may be associated with efficacy in patients with specific types of diseases.
- ***Phase 2***: This phase involves clinical trials in a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and appropriate dosage.
- ***Phase 3***: Clinical trials are undertaken to further evaluate dosage, clinical efficacy and safety in an expanded patient population, generally at geographically dispersed clinical study sites. These clinical trials are intended to establish the overall risk-benefit ratio of the product candidate and provide, if appropriate, an adequate basis for product labeling.

Post-approval trials, sometimes referred to as Phase 4 studies, may be conducted after initial marketing approval. These trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication. In certain instances, the FDA may mandate the performance of Phase 4 clinical trials as a condition of approval of an NDA.

The FDA or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients. In addition, some clinical trials are overseen by an independent group of qualified experts organized by the sponsor, known as a data safety monitoring board or committee. Depending on its charter, this group may determine whether a trial may move forward at designated check points based on access to certain data from the trial.

During the development of a new drug, sponsors are given opportunities to meet with the FDA at certain points. These points may be prior to submission of an IND, at the end of Phase 2, and before an NDA is submitted. Meetings at other times may be requested. These meetings can provide an opportunity for the sponsor to share information about the data gathered to date, for the FDA to provide advice, and for the sponsor and the FDA to reach agreement on the next phase of development. Sponsors typically use the meetings at the end of the Phase 2 trial to discuss Phase 2 clinical results and present plans for the pivotal Phase 3 clinical trials that they believe will support approval of the new drug.

Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the drug and finalize a process for

manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the manufacturer must develop methods for testing the identity, strength, quality and purity of the final drug. In addition, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life.

While the IND is active and before approval, progress reports summarizing the results of the clinical trials and nonclinical studies performed since the last progress report must be submitted at least annually to the FDA, and written IND safety reports must be submitted to the FDA and investigators for serious and unexpected suspected adverse events, findings from other studies suggesting a significant risk to humans exposed to the same or similar drugs, findings from animal or in vitro testing suggesting a significant risk to humans, and any clinically important increased incidence of a serious suspected adverse reaction compared to that listed in the protocol or investigator brochure.

There are also requirements governing the reporting of ongoing clinical trials and completed trial results to public registries. Sponsors of certain clinical trials of FDA-regulated products are required to register and disclose specified clinical trial information, which is publicly available at www.clinicaltrials.gov. Information related to the product, patient population, phase of investigation, trial sites and investigators and other aspects of the clinical trial is then made public as part of the registration. Sponsors are also obligated to discuss the results of their clinical trials after completion. Disclosure of the results of these trials can be delayed until the new product or new indication being studied has been approved.

***NDA review and approval process***

The results of product development, preclinical and other non-clinical studies and clinical trials, along with descriptions of the manufacturing process, analytical tests conducted on the chemistry of the drug, proposed labeling and other relevant information are submitted to the FDA as part of an NDA requesting approval to market the product. The submission of an NDA is subject to the payment of substantial user fees; a waiver of such fees may be obtained under certain limited circumstances. The FDA reviews an NDA to determine, among other things, whether a product is safe and effective for its intended use and whether its manufacturing is cGMP-compliant to assure and preserve the product's identity, strength, quality and purity. Under the Prescription Drug User Fee Act (PDUFA) guidelines that are currently in effect, the FDA has a goal of ten months from the date of "filing" of a standard NDA for a new molecular entity to review and act on the submission. This review typically takes twelve months from the date the NDA is submitted to FDA because the FDA has approximately two months to make a "filing" decision after it the application is submitted. The FDA conducts a preliminary review of all NDAs within the first 60 days after submission, before accepting them for filing, to determine whether they are sufficiently complete to permit substantive review The FDA may request additional information rather than accept an NDA for filing. In this event, the NDA must be resubmitted with the additional information. The resubmitted application also is subject to review before the FDA accepts it for filing.

The FDA may refer an application for a novel drug to an advisory committee. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions. Before approving an NDA, the FDA will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA may inspect one or more clinical trial sites to assure compliance with GCP requirements.

After the FDA evaluates an NDA, it will issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the drug with prescribing information for specific indications. A Complete Response Letter indicates that the review cycle of the application is complete and the application will not be approved in its present form. A Complete Response Letter usually describes the specific deficiencies in the NDA identified by the FDA and may require additional clinical data, such as an additional pivotal Phase 3 trial or other significant and time-consuming requirements related to clinical trials, nonclinical studies or manufacturing. If a Complete Response Letter is issued, the sponsor must resubmit the NDA or, addressing all of the deficiencies identified in the letter, or withdraw the application. Even if such data and information are submitted, the FDA may decide that the NDA does not satisfy the criteria for approval.

If a product receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product. In addition, the FDA may require a sponsor to conduct Phase 4 testing, which involves clinical trials designed to further assess a drug's safety and effectiveness after NDA approval, and may require testing and surveillance programs to monitor the safety of approved products which have been commercialized. The FDA may also place other conditions on approval including the requirement for a REMS to assure the safe use of the drug. If the FDA concludes a REMS is needed, the sponsor of the NDA must submit a proposed REMS. The FDA will not approve the NDA without an approved REMS, if required. A REMS could include medication guides, physician communication plans or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. Any of these limitations on approval or marketing could restrict the commercial promotion, distribution, prescription or dispensing of products. Marketing approval may be withdrawn for non-compliance with regulatory requirements or if problems occur following initial marketing.

The Pediatric Research Equity Act (PREA) requires a sponsor to conduct pediatric clinical trials for most drugs, for a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration. Under PREA, original NDAs and supplements must contain a pediatric assessment unless the sponsor has received a deferral or waiver. The required assessment must evaluate the safety and effectiveness of the product for the claimed indications in all relevant pediatric subpopulations and support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The sponsor or FDA may request a deferral of pediatric clinical trials for some or all of the pediatric subpopulations. A deferral may be granted for several reasons, including a finding that the drug is ready for approval for use in adults before pediatric clinical trials are complete or that additional safety or effectiveness data needs to be collected before the pediatric clinical trials begin. The FDA must send a non-compliance letter to any sponsor that fails to submit the required assessment, keep a deferral current or fails to submit a request for approval of a pediatric formulation.

***Expedited development and review programs***

A sponsor may seek approval of its product candidate under programs designed to accelerate FDA's review and approval of new drugs and biological products that meet certain criteria. The FDA has a fast track designation program that is intended to expedite or facilitate the process for reviewing new drug products that meet certain criteria. Specifically, new drugs are eligible for Fast Track designation if they are intended to treat a serious or life-threatening disease or condition and demonstrate the potential to address unmet medical needs for the disease or condition. Unique to a fast-track product, the FDA may consider for review sections of the NDA on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the NDA, the FDA agrees to accept sections of the NDA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the NDA.

Any product submitted to the FDA for approval, including a product with a fast track designation, may also be eligible for other types of FDA programs intended to expedite development and review, such as priority review

and accelerated approval. A product is eligible for priority review if it has the potential to provide safe and effective therapy where no satisfactory alternative therapy exists or a significant improvement in the safety or effectiveness of the treatment, diagnosis or prevention of a serious disease or condition. The FDA will attempt to direct additional resources to the evaluation of an application for a new drug designated for priority review in an effort to facilitate the review. The FDA endeavors to review applications with priority review designations within six months of the filing date as compared to ten months for review of new molecular entity NDAs under its current PDUFA review goals. Priority review designation does not change the scientific/medical standard for approval or the quality of evidence necessary to support approval.

In addition, a product may be eligible for accelerated approval. Drug products intended to treat serious or life-threatening diseases or conditions may be eligible for accelerated approval upon a determination that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require that a sponsor of a drug receiving accelerated approval perform adequate and well-controlled post-marketing clinical trials. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product. FDA may withdraw approval of a drug or indication approved under accelerated approval if, for example, the confirmatory trial fails to verify the predicted clinical benefit of the product.

FDASIA established a category of drugs referred to as “breakthrough therapies” that may be eligible to receive breakthrough therapy designation. A sponsor may seek FDA designation of a product candidate as a “breakthrough therapy” if the product is intended, alone or in combination with one or more other products, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. If the FDA designates a breakthrough therapy, it may take actions appropriate to expedite the development and review of the application, which may include holding meetings with the sponsor and the review team throughout the development of the therapy; providing timely advice to, and interactive communication with, the sponsor regarding the development of the drug to ensure that the development program to gather the nonclinical and clinical data necessary for approval is as efficient as practicable; involving senior managers and experienced review staff, as appropriate, in a collaborative, cross-disciplinary review; assigning a cross-disciplinary project lead for the FDA review team to facilitate an efficient review of the development program and to serve as a scientific liaison between the review team and the sponsor; and considering alternative clinical trial designs when scientifically appropriate, which may result in smaller trials or more efficient trials that require less time to complete and may minimize the number of patients exposed to a potentially less efficacious treatment. The designation includes all of the fast track program features, which means that the sponsor may file sections of the NDA for review on a rolling basis if certain conditions are satisfied, including an agreement with FDA on the proposed schedule for submission of portions of the application and the payment of applicable user fees before the FDA may initiate a review. The breakthrough therapy designation is a distinct status from both accelerated approval and priority review, which can also be granted to the same drug if relevant criteria are met. If a product is designated as breakthrough therapy, the FDA will work to expedite the development and review of such drug.

Fast track designation, priority review and breakthrough therapy designation do not change the standards for approval but may expedite the development or approval process. Even if a product qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or

decide that the time period for FDA review or approval will not be shortened. We may explore some of these opportunities for our product candidates as appropriate.

***Post-approval requirements***

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product may result in restrictions on the product or even complete withdrawal of the product from the market. After approval, some types of changes to the approved product, such as adding new indications, certain manufacturing changes and additional labeling claims, are subject to further FDA review and approval. Drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP regulations and other laws and regulations. In addition, the FDA may impose a number of post-approval requirements as a condition of approval of an NDA. For example, the FDA may require post-marketing testing, including Phase 4 clinical trials, and surveillance to further assess and monitor the product's safety and effectiveness after commercialization.

Any drug products manufactured or distributed by us or our partners pursuant to FDA approvals will be subject to pervasive and continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the drug, providing the FDA with updated safety and efficacy information, drug sampling and distribution requirements, complying with certain electronic records and signature requirements, and complying with FDA promotion and advertising requirements. The FDA strictly regulates labeling, advertising, promotion and other types of information on products that are placed on the market and imposes requirements and restrictions on drug manufacturers, such as those related to direct-to-consumer advertising, the prohibition on promoting products for uses or in patient populations that are not described in the product's approved labeling (known as "off-label use"), industry-sponsored scientific and educational activities, and promotional activities involving the internet.

Discovery of previously unknown problems or the failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions. Failure to comply with the applicable US requirements at any time during the product development process, approval process or after approval, may subject an applicant or manufacturer to administrative or judicial civil or criminal sanctions and adverse publicity. FDA sanctions could include refusal to approve pending applications, withdrawal of an approval, clinical holds on post-approval clinical trials, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, mandated corrective advertising or communications with doctors, debarment, restitution, disgorgement of profits, or civil or criminal penalties.

***Marketing exclusivity***

Market exclusivity provisions under the FDCA can delay the submission or the approval of certain marketing applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to obtain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not approve or even accept for review an abbreviated new drug application (ANDA) or an NDA submitted under Section 505(b)(2), or 505(b)(2) NDA, submitted by another company for another drug based on the same active

moiety, regardless of whether the drug is intended for the same indication as the original innovative drug or for another indication, where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement to one of the patents listed with the FDA by the innovator NDA holder.

The FDCA alternatively provides three years of marketing exclusivity for an NDA, or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the modification for which the drug received approval on the basis of the new clinical investigations and does not prohibit the FDA from approving ANDAs or 505(b)(2) NDAs for drugs containing the active agent for the original indication or condition of use. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

Pediatric exclusivity is another type of marketing exclusivity available in the United States. Pediatric exclusivity provides for an additional six months of marketing exclusivity attached to another period of exclusivity if a sponsor conducts clinical trials in children in response to a written request from the FDA. The issuance of a written request does not require the sponsor to undertake the described clinical trials.

***Other US regulatory requirements***

In addition to FDA regulation of pharmaceutical products, pharmaceutical companies are also subject to additional healthcare regulation and enforcement by the federal government and by authorities in the states and foreign jurisdictions in which they conduct their business and may constrain the financial arrangements and relationships through which we research, as well as sell, market and distribute any products for which we obtain marketing authorization. Such laws include, without limitation, state and federal anti-kickback, fraud and abuse, false claims, data privacy and security, and transparency laws and regulations related to drug pricing and payments and other transfers of value made to physicians and other healthcare providers. If their operations are found to be in violation of any of such laws or any other governmental regulations that apply, they may be subject to penalties, including, without limitation, administrative, civil and criminal penalties, damages, fines, disgorgement, the curtailment or restructuring of operations, integrity oversight and reporting obligations, exclusion from participation in federal and state healthcare programs and imprisonment.

***US coverage and reimbursement***

Significant uncertainty exists as to the coverage and reimbursement status of any product candidate for which we may seek regulatory approval. Sales in the United States will depend, in part, on the availability of sufficient coverage and adequate reimbursement from third-party payors, which include government health programs such as Medicare, Medicaid, TRICARE and the Veterans Administration, as well as managed care organizations and private health insurers. Prices at which we or our customers seek reimbursement for our product candidates can be subject to challenge, reduction or denial by third-party payors.

The process for determining whether a third-party payor will provide coverage for a product is typically separate from the process for setting the reimbursement rate that the payor will pay for the product. In the United States, there is no uniform policy among payors for coverage or reimbursement. Decisions regarding whether to cover any of a product, the extent of coverage and amount of reimbursement to be provided are made on a plan-by-plan basis. Third-party payors often rely upon Medicare coverage policy and payment

limitations in setting their own coverage and reimbursement policies, but also have their own methods and approval processes. Therefore, coverage and reimbursement for products can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that can require manufacturers to provide scientific and clinical support for the use of a product to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance.

Third-party payors are increasingly challenging the price and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. Third-party payors may not consider our product candidates to be medically necessary or cost-effective compared to other available therapies. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit sales of any product that receives approval.

***US healthcare reform***

In the United States, there have been, and continue to be, legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval of product candidates, restrict or regulate post-approval activities, and affect the profitable sale of product candidates. Among policy makers and payors in the United States, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives.

By way of example, in March 2010, the ACA was passed, which substantially changed the way healthcare is financed by both governmental and private insurers, and significantly affected the pharmaceutical industry. The ACA, among other things, increased the minimum level of Medicaid rebates payable by manufacturers of brand name drugs from 15.1% to 23.1% of the average manufacturer price; required collection of rebates for drugs paid by Medicaid managed care organizations; required manufacturers to participate in a coverage gap discount program, in which manufacturers must agree to offer point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D; imposed a non-deductible annual fee on pharmaceutical manufacturers or importers who sell certain "branded prescription drugs" to specified federal government programs; implemented a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted, or injected; expanded eligibility criteria for Medicaid programs; creates a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and established a Center for Medicare Innovation at the CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending.

Since its enactment, there have been judicial, executive and political challenges to certain aspects of the ACA. The US Supreme Court is currently reviewing the constitutionality of the ACA in its entirety, although it is unclear how the Supreme Court will rule. On February 10, 2021, the Biden administration withdrew the federal government's support for overturning the ACA. Although the Supreme Court has not yet ruled on the constitutionality of the ACA, on January 28, 2021, President Biden issued an executive order to initiate a special enrollment period for purposes of obtaining health insurance coverage through the ACA marketplace, which began on February 15, 2021 and will remain open through August 15, 2021. The executive order also instructs certain governmental agencies to review and reconsider their existing policies and rules that limit access to

healthcare, including among others, reexamining Medicaid demonstration projects and waiver programs that include work requirements, and policies that create unnecessary barriers to obtaining access to health insurance coverage through Medicaid or the ACA. It is unclear how the Supreme Court ruling, other such litigation, and the healthcare reform measures of the Biden administration will impact the ACA.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. These changes included aggregate reductions to Medicare payments to providers of 2% per fiscal year, which went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2030, with the exception of a temporary suspension from May 1, 2020 through March 31, 2021, unless additional Congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, reduced Medicare payments to several providers, including hospitals, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

Moreover, there has recently been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for pharmaceutical products. The likelihood of success of these and other reforms initiated by the Trump administration is unclear, particularly in light of the new Biden administration.

Individual states in the United States have also become increasingly active in implementing regulations designed to control pharmaceutical product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine which drugs and suppliers will be included in their healthcare programs Furthermore, there has been increased interest by third party payors and governmental authorities in reference pricing systems and publication of discounts and list prices.

***Foreign regulation***

In order to market any product outside of the United States, we would need to comply with numerous and varying regulatory requirements of other countries and jurisdictions regarding quality, safety and efficacy and governing, among other things, clinical trials, marketing authorization, commercial sales and distribution of ourproducts. Whether or not we obtain FDA approval for a product, we would need to obtain the necessary approvals by the comparable foreign regulatory authorities before we can commence clinical trials or marketing of the product in foreign countries and jurisdictions such as in China and Japan. Although many of the issues discussed above with respect to the United States apply similarly in the context of the European Union (EU), the approval process varies between countries and jurisdictions and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries and jurisdictions might differ from and be longer than that required to obtain FDA approval. Regulatory approval in one country or jurisdiction does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country or jurisdiction may negatively impact the regulatory process in others. Failure to comply with applicable foreign regulatory requirements, may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

***Non-clinical studies and clinical trials***

Similarly to the United States, the various phases of non-clinical and clinical research in the EU are subject to significant regulatory controls.

Non-clinical studies are performed to demonstrate the health or environmental safety of new chemical or biological substances. Non-clinical studies must be conducted in compliance with the principles of good laboratory practice (GLP) as set forth in EU Directive 2004/10/EC. In particular, non-clinical studies, both in vitro and in vivo, must be planned, performed, monitored, recorded, reported and archived in accordance with the GLP principles, which define a set of rules and criteria for a quality system for the organizational process and the conditions for non-clinical studies. These GLP standards reflect the Organization for Economic Co-operation and Development requirements.

Clinical trials of medicinal products in the EU must be conducted in accordance with EU and national regulations and the International Conference on Harmonization (ICH) guidelines on good clinical practices (GCP) as well as the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki. Additional GCP guidelines from the European Commission, focusing in particular on traceability, apply to clinical trials of advanced therapy medicinal products. If the sponsor of the clinical trial is not established within the EU, it must appoint an entity within the EU to act as its legal representative. The sponsor must take out a clinical trial insurance policy, and in most EU member states, the sponsor is liable to provide ‘no fault’ compensation to any study subject injured in the clinical trial.

Certain countries outside of the United States, including the EU, have a similar process that requires the submission of a clinical study application (CTA) much like the IND prior to the commencement of human clinical studies. A CTA must be submitted to each country’s national health authority and an independent ethics committee, much like the FDA and the IRB, respectively. Once the CTA is approved by the national health authority and the ethics committee has granted a positive opinion in relation to the conduct of the trial in the relevant member state(s), in accordance with a country’s requirements, clinical study development may proceed.

The CTA must include, among other things, a copy of the trial protocol and an investigational medicinal product dossier containing information about the manufacture and quality of the medicinal product under investigation. Currently, CTAs must be submitted to the competent authority in each EU member state in which the trial will be conducted. Under the new Regulation on Clinical Trials, which is currently expected to become applicable by early 2022, there will be a centralized application procedure where one national authority takes the lead in reviewing the application and the other national authorities have only a limited involvement. Any substantial changes to the trial protocol or other information submitted with the CTA must be notified to or approved by the relevant competent authorities and ethics committees. Medicines used in clinical trials must be manufactured in accordance with good manufacturing practice (GMP). Other national and EU-wide regulatory requirements also apply.

***Marketing Authorizations***

To market a medicinal product in the EU and in many other foreign jurisdictions, we must obtain separate regulatory approvals. More concretely, in the EU, medicinal product candidates can only be commercialized after obtaining a Marketing Authorization (MA). To obtain regulatory approval of an investigational medicinal product under EU regulatory systems, we must submit a marketing authorization application (MAA.) The process for doing this depends, among other things, on the nature of the medicinal product. There are two types of MAs:

- the “Union MA”, which is issued by the European Commission through the Centralized Procedure, based on the opinion of the Committee for Medicinal Products for Human Use (CHMP) of the European Medicines

Agency (EMA) and which is valid throughout the entire territory of the EU. The Centralized Procedure is mandatory for certain types of products, such as (i) medicinal products derived from biotechnology medicinal products, (ii) designated orphan medicinal products, (iii) advanced therapy products (such as gene therapy, somatic cell therapy or tissue-engineered medicines), and (iv) medicinal products containing a new active substance indicated for the treatment certain diseases, such as HIV/AIDS, cancer, neurodegenerative diseases, diabetes, other auto-immune and viral diseases. The Centralized Procedure is optional for products containing a new active substance not yet authorized in the EU, or for products that constitute a significant therapeutic, scientific or technical innovation or that the granting of authorization would be in the interest of public health in the EU; and

- "National MAs", which are issued by the competent authorities of the EU member states and only cover their respective territory, are available for products not falling within the mandatory scope of the Centralized Procedure. Where a product has already been authorized for marketing in an EU member state, this National MA can be recognized in another member state through the Mutual Recognition Procedure. If the product has not received a National MA in any member state at the time of application, it can be approved simultaneously in various member states through the Decentralized Procedure. Under the Decentralized Procedure an identical dossier is submitted to the competent authorities of each of the member states in which the MA is sought, one of which is selected by the applicant as the Reference member state.

Under the above-described procedures, in order to grant the MA, the EMA or the competent authorities of the EU member states make an assessment of the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy.

Under the Centralized Procedure, the maximum timeframe for the evaluation of a MAA by the EMA is 210 days. Where there is a major public health interest and an unmet medical need for a product, the CHMP may perform an accelerated review of a MA in no more than 150 days (not including clock stops). Innovative products that target an unmet medical need and are expected to be of major public health interest may be eligible for a number of expedited development and review programs, such as the PRIME scheme, which provides incentives similar to the breakthrough therapy designation in the U.S. PRIME is a voluntary scheme aimed at enhancing the EMA's support for the development of medicines that target unmet medical needs. It is based on increased interaction and early dialogue with companies developing promising medicines, to optimize their product development plans and speed up their evaluation to help them reach patients earlier. Product developers that benefit from PRIME designation can expect to be eligible for accelerated assessment but this is not guaranteed. The benefits of a PRIME designation include the appointment of a CHMP rapporteur before submission of a MAA, early dialogue and scientific advice at key development milestones, and the potential to qualify products for accelerated review earlier in the application process.

MAs have an initial duration of five years. After these five years, the authorization may be renewed for an unlimited period on the basis of a reevaluation of the risk-benefit balance, unless the EMA decides, on justified grounds relating to pharmacovigilence, to mandate one additional five-year renewal period.

***Data and marketing exclusivity***

The EU also provides opportunities for market exclusivity. Upon receiving MA, new chemical entity, or reference product candidates, generally receive for eight years of data exclusivity and an additional two years of market exclusivity. If granted, the data exclusivity period prevents generic or biosimilar applicants from relying on the pre-clinical and clinical trial data contained in the dossier of the reference product when applying for a generic or biosimilar MA in the EU during a period of eight years from the date on which the reference product was first authorized in the EU. The market exclusivity period prevents a successful generic or biosimilar applicant from commercializing its product in the EU until 10 years have elapsed from the initial authorization of the reference product in the EU. The overall 10-year market exclusivity period can be extended to a maximum of eleven years

if, during the first eight years of those 10 years, the MA holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies. However, there is no guarantee that a product will be considered by the EU's regulatory authorities to be a new chemical entity, and products may not qualify for data exclusivity.

***Pediatric Development***

In the EU, MAAs for new medicinal products candidates have to include the results of trials conducted in the pediatric population, in compliance with a pediatric investigation plan (PIP) agreed with the EMA's Pediatric Committee (PDCO). The PIP sets out the timing and measures proposed to generate data to support a pediatric indication of the drug for which MA is being sought. The PDCO can grant a deferral of the obligation to implement some or all of the measures of the PIP until there are sufficient data to demonstrate the efficacy and safety of the product in adults. Further, the obligation to provide pediatric clinical trial data can be waived by the PDCO when these data is not needed or appropriate because the product is likely to be ineffective or unsafe in children, the disease or condition for which the product is intended occurs only in adult populations, or when the product does not represent a significant therapeutic benefit over existing treatments for pediatric patients. Once the MA is obtained in all EU Member States and study results are included in the product information, even when negative, the product is eligible for six months' supplementary protection certificate extension (if any is in effect at the time of authorization).

***Post-Approval Requirements***

Similar to the United States, both MA holders and manufacturers of medicinal products are subject to comprehensive regulatory oversight by the EMA, the European Commission and/or the competent regulatory authorities of the member states. The holder of a MA must establish and maintain a pharmacovigilance system and appoint an individual qualified person for pharmacovigilance who is responsible for oversight of that system. Key obligations include expedited reporting of suspected serious adverse reactions and submission of periodic safety update reports (PSURs).

All new MAA must include a risk management plan (RMP) describing the risk management system that the company will put in place and documenting measures to prevent or minimize the risks associated with the product. The regulatory authorities may also impose specific obligations as a condition of the MA. Such risk-minimization measures or post-authorization obligations may include additional safety monitoring, more frequent submission of PSURs, or the conduct of additional clinical trials or post-authorization safety studies.

The advertising and promotion of medicinal products is also subject to laws concerning promotion of medicinal products, interactions with physicians, misleading and comparative advertising and unfair commercial practices. All advertising and promotional activities for the product must be consistent with the approved summary of product characteristics, and therefore all off-label promotion is prohibited. Direct-to-consumer advertising of prescription medicines is also prohibited in the EU. Although general requirements for advertising and promotion of medicinal products are established under EU directives, the details are governed by regulations in each member state and can differ from one country to another.

The aforementioned EU rules are generally applicable in the European Economic Area (EEA) which consists of the 27 EU member states plus Norway, Liechtenstein and Iceland.

For other countries outside of the EU, such as countries in Latin America or Asia (e.g. China and Japan), the requirements governing the conduct of clinical studies, product licensing, pricing and reimbursement vary from country to country. In all cases, again, the clinical studies are conducted in accordance with GCP and the

applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki. If we fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

***Privacy and data protection laws***

We are also subject to laws and regulations in non-US countries covering data privacy and the protection of health-related and other personal information. For instance, EU member states and other jurisdictions have adopted data protection laws and regulations, which impose significant compliance obligations. Laws and regulations in these jurisdictions apply broadly to the collection, use, storage, disclosure, processing and security of personal information that identifies or may be used to identify an individual, such as names, contact information, and sensitive personal data such as health data. These laws and regulations are subject to frequent revisions and differing interpretations,

As of May 2018, the General Data Protection Regulation (GDPR) replaced the Data Protection Directive with respect to the processing of personal data in the European Union. The GDPR imposes many requirements for controllers and processors of personal data, including, for example, higher standards for obtaining consent from individuals to process their personal data, more robust disclosures to individuals and a strengthened individual data rights regime, shortened timelines for data breach notifications, limitations on retention and secondary use of information, increased requirements pertaining to health data and pseudonymised (i.e., key-coded) data and additional obligations when we contract third-party processors in connection with the processing of the personal data. The GDPR allows EU member states to make additional laws and regulations further limiting the processing of genetic, biometric or health data. Failure to comply with the requirements of GDPR and the applicable national data protection laws of the EU member states may result in fines of up to €20,000,000 or up to 4% of the total worldwide annual turnover of the preceding financial year, whichever is higher, and other administrative penalties.

## Facilities

Our corporate headquarters are located in San Diego, California, where we currently lease approximately 16,153 square feet of office and laboratory space pursuant to a non-cancelable lease that expires at the end of May 2024. In order to ensure adequate space to accommodate our long-term laboratory and office space needs, in September 2020 we entered into a lease of approximately 59,407 square feet of office and laboratory space in a facility in San Diego, California that is currently under construction and further expanded our lease in March 2021 to include an additional 18,421 square feet of office space, resulting in 77,828 square feet of total leased space within this facility. The lease has an initial term of 10.5 years with a target commencement date of August 2021. We believe our existing facilities are adequate to meet our current business requirements for the near-term, and that additional space will be available on commercially reasonable terms, if required.

## Employees

As of May 31, 2021, we had 95 full-time employees (FTEs), 39 of whom have doctorate degrees. Of our FTEs, 65 are engaged in research and development activities, and 30 are engaged in general and administrative activities. Substantially all of our employees are located in San Diego County, California. None of our employees are represented by labor unions or covered by collective bargaining units. We consider our relationship with our employees to be good.

Our human resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing, and integrating our existing and additional employees. The principal purposes of our equity incentive plans are to attract, retain, and motivate selected employees, consultants, and directors through the granting of stock-based compensation awards.

## Legal proceedings

From time to time, we may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. We are not currently a party to any material proceedings. Regardless of outcome, such proceedings or claims can have an adverse impact on us because of defense and settlement costs, diversion of resources and other factors, and there can be no assurances that favorable outcomes will be obtained.

# Management

## Executive officers and directors

The following table sets forth the name, age and position of each of our executive officers and directors as of May 31, 2021.

| Name | Age | Position |
|---|---|---|
| ***Executive Officers*** | | |
| Jonathan E. Lim, M.D. | 49 | Chairman, Chief Executive Officer and Co-Founder |
| David M. Chacko, M.D. | 38 | Chief Financial Officer |
| Ebun S. Garner | 49 | General Counsel and Corporate Secretary |
| Wei Lin, M.D. | 52 | Chief Medical Officer |
| ***Directors*** | | |
| James A. Bristol, Ph.D.(1)(3) | 74 | Director |
| Alexander W. Casdin(2) | 53 | Director |
| Bihua Chen(2) | 53 | Director |
| Julie Hambleton, M.D.(1)(2) | 63 | Director |
| Valerie Harding-Start, Ph.D.(1)(3) | 61 | Director |
| Pratik S. Multani, M.D.(3) | 54 | Director |
| Michael D. Varney, Ph.D. | 62 | Director, Chairman of Research and Development and SAB member |

(1) Member of the compensation committee

(2) Member of the audit committee

(3) Member of the nominating and corporate governance committee

### *Executive officers*

*Jonathan E. Lim, M.D.* co-founded Erasca in July 2018, joined us as Executive Chairman in October 2018, and has served as our Chairman and Chief Executive Officer since March 2019. Dr. Lim has also served as a Venture Partner at ARCH Venture Partners since December 2018 and as Managing Partner at City Hill since founding it in 2010. Prior to founding Erasca, in 2011 Dr. Lim co-founded and served as Chairman of Ignyta, Inc., a public precision oncology company, and led it from 2012 as Chairman, Chief Executive Officer and President through its acquisition by Roche in February 2018 and subsequent integration into Roche and Genentech in July 2018. During his tenure at Ignyta, in 2015 Dr. Lim co-founded Bonti, Inc., a private pain management and anesthetics company, and served as its Chairman from February 2016 until its acquisition by Allergan plc in October 2018. Prior to joining Ignyta, Dr. Lim served as Chairman and Chief Executive Officer of Eclipse Therapeutics, Inc., a private oncology company targeting cancer stem cells that he co-founded in March 2011 as a spinout from Biogen Idec and that was sold to Bionomics Ltd. in 2012. Prior to Eclipse, Dr. Lim served as the President, Chief Executive Officer and a Director (including as Chairman from 2004 to 2005) of Halozyme Therapeutics, Inc., a public biotechnology company, from May 2003 to December 2010. Prior to Halozyme, Dr. Lim's experience included management consulting at McKinsey & Company, a National Institutes of Health Postdoctoral

Fellowship at Harvard Medical School and the Dana-Farber Cancer Institute, and two years of general surgery residency at New York Hospital-Cornell and Memorial Sloan Kettering Cancer Center. Dr. Lim has also served as a member of the board of directors of Maze Therapeutics, Inc., a private company advancing precision medicines for both rare and common diseases, since October 2019, and as Chairman and co-founder of Boundless Bio, Inc., a private precision oncology company, since December 2018. Dr. Lim has been a member of the Board of Overseers at Scripps Research since October 2018, a member of the Board of Visitors of the Moores Cancer Center at the University of California, San Diego since 2015, and a member of the Stanford Interdisciplinary Biosciences Council since 2014. Dr. Lim has B.S. and M.S. degrees from Stanford University, an M.D. from McGill University, and an M.P.H. from Harvard University. Dr. Lim's intimate knowledge of our business as a co-founder of our company and his extensive experience as an executive officer and director of multiple public and private biotechnology companies contributed to our board of directors' conclusion that he should serve as a director of our company**.**

*David M. Chacko, M.D.* has served as our Chief Financial Officer since December 2020 and joined Erasca in August 2019 as our Chief Business Officer. Prior to Erasca, Dr. Chacko was a principal at Versant Ventures, a healthcare venture capital firm, from September 2017 to August 2019, where he led investment opportunities across multiple therapeutic areas and was intimately involved in advancing several Versant portfolio companies operationally through company formation, fundraising, corporate and business development, and clinical and regulatory activities. Dr. Chacko joined Versant from Alcon, a multinational company specializing in eye care products, where he served as Chief of Staff to the Chief Executive Officer from 2014 to September 2017. Prior to Alcon, Dr. Chacko was a management consultant at McKinsey & Company from 2011 to 2014. Dr. Chacko previously held positions at SR One, Amgen, and Morgan Stanley. Dr. Chacko holds an M.D. from the University of Pennsylvania, an M.B.A. from the Wharton School of Business, an M. Phil. from Oxford University, where he was a Marshall Scholar, and B.A. and B.S. degrees in biology and business from the University of Southern California, where he was the university valedictorian.

*Ebun S. Garner* has served as our General Counsel and Corporate Secretary since April 2021. Prior to joining us, Mr. Garner served as Assistant General Counsel of Acadia Pharmaceuticals, Inc., a publicly-traded biopharmaceutical company, from August 2020 until April 2021. Prior to Acadia, Mr. Garner served as the Chief Legal Officer and Corporate Secretary of Imbria Pharmaceuticals, Inc., a private therapeutics company, where he oversaw all legal and intellectual property matters from April 2019 to July 2020. From March 2017 to April 2019, Mr. Garner served as Associate General Counsel at Neurocrine Biosciences, Inc., a publicly-traded biopharmaceutical company, where he was the primary legal support for all non-commercial legal matters and public company reporting. Prior to that, Mr. Garner served as the Senior Vice President, General Counsel and Corporate Secretary of Alphatec Spine, Inc., a publicly-traded medical device company, where he worked from 2005 until February 2017. Mr. Garner was a corporate associate in the New York office of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. from 2000 to 2005. He received a B.A. in Economics from the University of Pennsylvania and a J.D. from New York University School of Law.

*Wei Lin, M.D.* has served as our Chief Medical Officer since January 2021. Dr. Lin joined Erasca from Nektar Therapeutics, where he served as Senior Vice President and Head of Development, as well as a member of the executive committee, from October 2018 to January 2021. Prior to Nektar, from October 2011, Wei held roles of increasing responsibility at Roche and its subsidiary, Genentech, most recently as the Global Development Lead in cancer immunotherapy for lung cancer and head and neck cancer. Dr. Lin was also the Site Head for oncology product development at Roche China. Dr. Lin served on the faculty of the MD Anderson Cancer Center, where he completed his medical oncology fellowship, from 2006 to 2009. Dr. Lin completed his internal medicine residency at Massachusetts General Hospital, and holds an M.D. from Harvard Medical School and a B.A. in physics from Haverford College.

***Directors***

*James A. Bristol, Ph.D.* has served on our board of directors since June 2018. Dr. Bristol worked for more than three decades in drug discovery, research and preclinical development at Schering-Plough Corporation, Parke-Davis and Pfizer Inc., serving in various senior research and development roles. From 2003 until his retirement in 2007, Dr. Bristol served as Senior Vice President of Worldwide Drug Discovery Research at Pfizer Global Research & Development. In 2009, Dr. Bristol joined Frazier Healthcare Ventures as a Senior Advisor, and since 2007, Dr. Bristol has been working as a consultant with James Bristol LLC. He has served as Chairperson of Deciphera Pharmaceuticals, Inc. since 2015 and as a director since 2007, as well as a director of Ignyta, Inc. from 2014 to February 2018 and Cadent Therapeutics, Inc. from 2011 to January 2021. Dr. Bristol is the author of over 100 publications, abstracts and patents, and he conducted postdoctoral research at the University of Michigan (NIH Postdoctoral Fellow) and at The Squibb Institute for Medical Research. Dr. Bristol holds a Ph.D. in organic chemistry from the University of New Hampshire and a B.S. in Chemistry from Bates College. Dr. Bristol's extensive research and development and board-level experience in the biopharmaceutical industry contributed to our board of directors' conclusion that he should serve as a director of our company.

*Alexander W. Casdin* has served on our board of directors since July 2018. Mr. Casdin has served as Chief Financial Officer of Epirium Bio Inc. since October 2020. Previously, Mr. Casdin was the founder and served as the Chief Executive Officer and portfolio manager of Reneo Capital Management LP from January 2015 to October 2020. From September 2012 through December 2014, Mr. Casdin was a private investor focused on the healthcare sector. From October 2011 through September 2012, Mr. Casdin was the Chief Financial Officer of Sophiris Bio, Inc., a Canadian public urology company. Prior to Sophiris Bio, Mr. Casdin served as the Vice President, Finance of Amylin Pharmaceuticals, Inc., a biopharmaceutical company that was acquired by Bristol-Myers Squibb in 2012, a position he held from October 2009 to October 2011. Prior to his position at Amylin Pharmaceuticals, Mr. Casdin founded and operated Casdin Advisors LLC, where he served as a strategic advisor to companies in the life sciences industry. Before founding Casdin Advisors, Mr. Casdin was the Chief Executive Officer and Portfolio Manager of Cooper Hill Partners, LLC, a healthcare investment fund. Mr. Casdin has also held previous positions at Pequot Capital Management and Dreyfus Corporation. Mr. Casdin has served on the board of directors for multiple life sciences companies, including Ignyta, Inc. from 2013 to 2018 and DUSA Pharmaceuticals Inc. from 2009 to 2012. Mr. Casdin holds a B.A. in political science from Brown University and an M.B.A. from Columbia Business School, where he graduated Beta Gamma Sigma. Mr. Casdin's extensive financial experience in the biopharmaceutical industry contributed to our board of directors' conclusion that he should serve as a director of our company.

*Bihua Chen* has served on our board of directors since March 2021. Ms. Chen is the founder and portfolio manager of Cormorant Asset Management, LLC. Since August 2020, Ms. Chen has also served as the Chief Executive Officer and Chairman of the board of directors of Helix Acquisition Corp., a publicly-traded biotechnology special purpose acquisition company. Prior to founding Cormorant, Ms. Chen managed a separately managed account focused on the healthcare sector as a sub-adviser to a large, multi-strategy hedge fund based in New York. Prior to that, Ms. Chen was a healthcare analyst/sector portfolio manager for American Express Asset Management Boston. Ms. Chen also served as a portfolio manager for the Asterion Life Science Fund from 2001 to 2002, an equity analyst/portfolio manager for Bellevue Research from 2000 to 2001 and an equity analyst for Putnam Investments from 1998 to 2000. Ms. Chen has served on the board of directors of Biomea Fusion, Inc. since December 2020. Ms. Chen holds an M.B.A. from the Wharton School, an M.S. in molecular biology from Cornell Medical College's Graduate School of Biomedical Science and a B.S. in genetics and genetic engineering from Fudan University in Shanghai, China. Ms. Chen's extensive experience in investing in the biopharmaceutical industry contributed to our board of directors' conclusion that she should serve as a director of our company.

*Julie Hambleton, M.D.* has served on our board of directors since March 2021. From August 2020 to March 2021, Dr. Hambleton served as interim President and Chief Executive Officer of Arch Therapeutics, Inc., a private biotechnology company. From June 2018 to April 2020, when she retired, Dr. Hambleton was Senior Vice President, Chief Medical Officer, Head of Development at IDEAYA Biosciences, Inc., an oncology medicine company. From September 2017 to May 2018 and from March 2016 to May 2016, Dr. Hambleton served as an independent strategic consultant for various life sciences companies. From May 2016 to September 2017, she served as Vice President, Head US Medical at Bristol-Myers Squibb, a global biopharmaceutical company. From August 2015 to February 2016, Dr. Hambleton served as Executive Vice President, Chief Medical Officer at Five Prime Therapeutics, a biotechnology company, and as Senior Vice President, Chief Medical Officer from December 2012 to August 2015. From April 2010 to November 2012, Dr. Hambleton served as Vice President, Clinical Development at Clovis Oncology, and from 2003 to 2010, Dr. Hambleton held roles of increasing responsibility in BioOncology at Genentech. Dr. Hambleton serves on the boards of two publicy-traded biotechnology companies: IGM Biosciences, Inc., since August 2018, and SpringWorks Therapeutics, Inc., since May 2020. Dr. Hambleton completed her hematology-oncology training at the University of California, San Francisco, where she then served on the faculty from 1993 to 2003. Dr. Hambleton holds a B.S. in nursing from Duke University and an M.D. from Case Western Reserve University School of Medicine, and is board-certified in hematology and internal medicine. Dr. Hambleton's extensive executive leadership experience in the biopharmaceutical industry and her medical expertise in oncology, hematology-oncology and internal medicine contributed to our board of directors' conclusion that she should serve as a director of our company.

*Valerie Harding-Start, Ph.D.* has served on our board of directors since June 2019. Since February 2019, Dr. Harding-Start has been a principal and advisor at Start Pharma Consulting LLC. From 2015 to January 2019, Dr. Harding-Start served as Ignyta, Inc.'s Senior Vice President of Chemistry, Manufacturing and Controls (CMC), as well as Site Head during Ignyta's acquisition by Roche. Prior to Ignyta, Dr. Harding-Start served as Vice President of Product Differentiation, Pharmaceutical Sciences for Worldwide Research and Development at Pfizer, Inc. Dr. Harding-Start is also a member of the community of practice and thought partner for Smallify LLC, an innovation capacity-building firm. Dr. Harding-Start holds a B. Pharm. from the University of London and a Ph.D. in Pharmaceutical Microbiology from the University of Nottingham. Dr. Harding-Start's extensive experience in the biopharmaceutical industry and her expertise in CMC contributed to our board of directors' conclusion that she should serve as a director of our company.

*Pratik S. Multani, M.D.* has served on our board of directors since July 2018. Dr. Multani has served as Chief Medical Officer of ORIC Pharmaceuticals, Inc., a public oncology therapeutic company, since September 2018. From 2015 to February 2018, Dr. Multani served as the Chief Medical Officer of Ignyta, Inc. From 2009 to 2015, Dr. Multani was Chief Medical Officer at Fate Therapeutics, Inc., a biopharmaceutical company. Prior to that, Dr. Multani was Vice President of Clinical Development at Kalypsys, Inc. and Senior Vice President of Clinical Development and Chief Medical Officer at Kanisa Pharmaceuticals, Inc. Dr. Multani also held academic and clinical positions at Harvard Medical School and Massachusetts General Hospital, where he was a member of the bone marrow transplant unit. He completed his internship and residency training in internal medicine at Massachusetts General Hospital and his oncology fellowship at the Dana-Farber/Partners combined program. Dr. Multani has served on the board of directors of Chimerix, Inc., a public biopharmaceutical company, since February 2020. Dr. Multani holds an M.D. from Harvard Medical School, an M.S. in epidemiology from the Harvard School of Public Health and a B.S. in chemistry and biology from Yale University. Dr. Multani's executive and academic experience in the biopharmaceutical industry and his medical expertise in oncology and hematology-oncology contributed to our board of directors' conclusion that he should serve as a director of our company.

*Michael D. Varney, Ph.D.* has served as our Chairman of Research and Development and Scientific Advisory Board member since August 2020 and on our board of directors since December 2020. From 2005 until his retirement in July 2020, Dr. Varney served in progressing roles at Genentech, Inc., most recently as Executive

Vice President and Head of Research and Early Development, as well as a member of the Corporate Executive Committee of Roche, Genentech's parent company. Prior to Genentech, from 1987 to 2005 Dr. Varney served as Head of Research at Agouron Pharmaceuticals, Inc., a biotechnology company later acquired by Pfizer, Inc. Dr. Varney served on the board of directors of Foundation Medicine, Inc. (acquired by Roche Holdings AG) from 2015 until March 2018. Dr. Varney was an American Cancer Society postdoctoral fellow at Columbia University, and holds a B.S. in chemistry from the University of California, Los Angeles and a Ph.D. in synthetic organic chemistry from the California Institute of Technology. Dr. Varney's extensive executive leadership experience in the biopharmaceutical industry and his extensive drug discovery and development expertise contributed to our board of directors' conclusion that he should serve as a director of our company.

## Board composition and election of directors

### *Director independence*

Our board of directors currently consists of eight members. Our board of directors has determined that all of our directors, other than Drs. Lim and Varney, are independent directors in accordance with the listing requirements of the Nasdaq Global Market (Nasdaq). The Nasdaq independence definition includes a series of objective tests, including that the director is not, and has not been for at least three years, one of our employees and that neither the director nor any of his or her family members has engaged in various types of business dealings with us. In addition, as required by Nasdaq rules, our board of directors has made a subjective determination as to each independent director that no relationships exist, which, in the opinion of our board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of the director. In making these determinations, our board of directors reviewed and discussed information provided by the directors and us with regard to each director's business and personal activities and relationships as they may relate to us and our management. There are no family relationships among any of our directors or executive officers.

### *Classified board of directors*

In accordance with the terms of our amended and restated certificate of incorporation that will go into effect immediately prior to the closing of this offering, our board of directors will be divided into three classes with staggered, three-year terms. At each annual meeting of stockholders, the directors whose terms then expire will be eligible for reelection until the third annual meeting following reelection. Effective upon the closing of this offering, our directors will be divided among the three classes as follows:

- the Class I directors will be , and their terms will expire at our first annual meeting of stockholders following this offering;
- the Class II directors will be , and their terms will expire at our second annual meeting of stockholders following this offering; and
- the Class III directors will be , and their terms will expire at our third annual meeting of stockholders following this offering.

Our amended and restated certificate of incorporation that will go into effect immediately prior to the closing of this offering will provide that the authorized number of directors may be changed only by resolution of the board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our board of directors or a change in control of our company. Our directors may be removed only for cause by the affirmative vote of the holders of at least two-thirds of our outstanding voting stock then entitled to vote in an election of directors.

## Board leadership structure

Our board of directors is currently chaired by Dr. Lim, who also serves as our Chief Executive Officer. Our board of directors has determined that having an employee director serve as Chairman is in the best interest of our stockholders at this time because combining the roles allows one person to drive strategy and agenda-setting at the board level, as well as maintaining responsibility for executing on that strategy. Although we do not have a policy regarding the separation of the roles of Chief Executive Officer and Chairman of the board of directors, our board of directors believes that having the positions combined is the appropriate leadership structure for us at this time. We have a governance structure in place, including independent directors, designed to ensure the powers and duties of the dual role are handled responsibly. Our board of directors recognizes that, depending on the circumstances, other leadership models, such as separating the roles of Chief Executive Officer and Chairman, might be appropriate. Accordingly, our board of directors will continue to periodically review our leadership structure and may make such changes in the future as it deems appropriate.

## Role of board in risk oversight process

Our board of directors has responsibility for the oversight of our risk management processes and, either as a whole or through its committees, regularly discusses with management our major risk exposures, their potential impact on our business and the steps we take to manage them. The risk oversight process includes receiving regular reports from board committees and members of senior management to enable our board of directors to understand our risk identification, risk management and risk mitigation strategies with respect to areas of potential material risk, including operations, finance, legal, regulatory, strategic and reputational risk.

The audit committee reviews information regarding liquidity and operations, and oversees our management of financial risks. Periodically, the audit committee reviews our policies with respect to risk assessment, risk management, loss prevention and regulatory compliance. Oversight by the audit committee includes direct communication with our external auditors, and discussions with management regarding significant risk exposures and the actions management has taken to limit, monitor or control such exposures. The compensation committee is responsible for assessing whether any of our compensation policies or programs has the potential to encourage excessive risk-taking. The nominating and corporate governance committee manages risks associated with the independence of the board of directors, corporate disclosure practices and potential conflicts of interest. While each committee is responsible for evaluating certain risks and overseeing the management of such risks, the entire board of directors is regularly informed through committee reports about such risks. Matters of significant strategic risk are considered by our board of directors as a whole.

## Board committees and independence

Our board of directors has established three standing committees—audit, compensation and nominating and corporate governance—each of which operates under a charter that has been approved by our board of directors.

### *Audit committee*

The audit committee's main function is to oversee our accounting and financial reporting processes and the audits of our consolidated financial statements. This committee's responsibilities include, among other things:

- appointing our independent registered public accounting firm;
- evaluating the qualifications, independence and performance of our independent registered public accounting firm;

- approving the audit and non-audit services to be performed by our independent registered public accounting firm;
- reviewing the design, implementation, adequacy and effectiveness of our internal accounting controls and our critical accounting policies;
- discussing with management and the independent registered public accounting firm the results of our annual audit and the review of our quarterly unaudited financial statements;
- reviewing, overseeing and monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to financial statements or accounting matters;
- reviewing on a periodic basis, or as appropriate, any investment policy and recommending to our board of directors any changes to such investment policy;
- reviewing with management and our auditors any earnings announcements and other public announcements regarding our results of operations;
- preparing the report that the SEC requires in our annual proxy statement;
- reviewing and approving any related party transactions and reviewing and monitoring compliance with our code of conduct and ethics; and
- reviewing and evaluating, at least annually, the performance of the audit committee and its members including compliance of the audit committee with its charter.

The members of our audit committee are Mr. Casdin, Ms. Chen, and Dr. Hambleton. Mr. Casdin serves as the chairperson of the committee. All members of our audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and Nasdaq. Our board of directors has determined that Mr. Casdin is an “audit committee financial expert” as defined by applicable SEC rules and has the requisite financial sophistication as defined under the applicable Nasdaq listing standards. Our board of directors has determined each of Mr. Casdin, Ms. Chen, and Dr. Hambleton is independent under the applicable rules of the SEC and Nasdaq. Upon the listing of our common stock on Nasdaq, the audit committee will operate under a written charter, which the audit committee will review and evaluate at least annually.

***Compensation committee***

Our compensation committee approves policies relating to compensation and benefits of our officers and employees. The compensation committee approves corporate goals and objectives relevant to the compensation of our Chief Executive Officer and other executive officers, evaluates the performance of these officers in light of those goals and objectives and approves the compensation of these officers based on such evaluations. The compensation committee also approves the issuance of stock options and other awards under our equity plans. The compensation committee will review and evaluate, at least annually, the performance of the compensation committee and its members, including compliance by the compensation committee with its charter.

The members of our compensation committee are Dr. Bristol, Dr. Hambleton, and Dr. Harding-Start. Dr. Bristol serves as the chairperson of the committee. Our board of directors has determined that each of Dr. Bristol, Dr. Hambleton, and Dr. Harding-Start is independent under the applicable Nasdaq listing standards, and is a “non-employee director” as defined in Rule 16b-3 promulgated under the Exchange Act. Upon the listing of our common stock on Nasdaq, the compensation committee will operate under a written charter, which the compensation committee will review and evaluate at least annually.

***Nominating and corporate governance committee***

The nominating and corporate governance committee is responsible for assisting our board of directors in discharging the board of directors' responsibilities regarding the identification of qualified candidates to become board members, the selection of nominees for election as directors at our annual meetings of stockholders (or special meetings of stockholders at which directors are to be elected), and the selection of candidates to fill any vacancies on our board of directors and any committees thereof. In addition, the nominating and corporate governance committee is responsible for overseeing our corporate governance policies, reporting and making recommendations to our board of directors concerning governance matters and oversight of the evaluation of our board of directors. The members of our nominating and corporate governance committee are Dr. Harding-Start, Dr. Bristol, and Dr. Multani. Dr. Harding-Start serves as the chairperson of the committee. Our board of directors has determined that each of Dr. Bristol, Dr. Harding-Start, and Dr. Multani is independent under the applicable Nasdaq listing standards. Upon the listing of our common stock on Nasdaq, the nominating and corporate governance committee will operate under a written charter, which the nominating and corporate governance committee will review and evaluate at least annually.

## Compensation committee interlocks and insider participation

None of the members of our compensation committee has ever been one of our officers or employees. None of our executive officers currently serves, or has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of our board of directors or compensation committee.

## Board diversity

Upon the closing of this offering, our nominating and corporate governance committee will be responsible for reviewing with the board of directors, on an annual basis, the appropriate characteristics, skills and experience required for the board of directors as a whole and its individual members. In evaluating the suitability of individual candidates (both new candidates and current members) for election or appointment, the nominating and corporate governance committee and the board of directors will take into account many factors, including the following:

- personal and professional integrity, ethics, and values;
- experience in corporate management, such as serving as an officer or former officer of a publicly-held company;
- experience as a board member or executive officer of another publicly-held company;
- strong finance experience;
- diversity of expertise and experience in substantive matters pertaining to our business relative to other board members;
- diversity of background and perspective, including, but not limited to, with respect to age, gender, race, place of residence, and specialized experience;
- experience relevant to our business industry and with relevant social policy concerns; and
- relevant academic expertise or other proficiency in an area of our business operations.

Currently, our board of directors evaluates, and following the closing of this offering will evaluate, each individual in the context of the board of directors as a whole, with the objective of assembling a group that can best maximize the success of the business and represent stockholder interests through the exercise of sound judgment using its diversity of experience in these various areas.

## Code of business conduct and ethics

We plan to adopt a written code of business conduct and ethics that applies to our directors, officers, and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, which will be effective upon the closing of this offering. Upon the closing of this offering, our code of business conduct and ethics will be available under the Corporate Governance section of our website at www.erasca.com. In addition, we intend to post on our website all disclosures that are required by law or the listing standards of Nasdaq concerning any amendments to, or waivers from, any provision of the code. The reference to our website address does not constitute incorporation by reference of the information contained at or available through our website, and you should not consider it to be a part of this prospectus. We have included our website address as an inactive textual reference only.

# Executive and director compensation

This section discusses the material components of the executive compensation program for our executive officers who are named in the "Summary compensation table" below, whom we refer to as our NEOs.

## Summary compensation table

The following table presents summary information regarding the total compensation that was awarded to, earned by or paid to our NEOs for services rendered during the year ended December 31, 2020.

| Name and principal position | Year | Salary ($) | Bonus ($) | Stock awards ($) | Option awards ($)[1] | Non-equity incentive plan compensation ($)[2] | All other compensation ($)[3] | Total ($) |
|---|---|---|---|---|---|---|---|---|
| Jonathan E. Lim, M.D.<br>*Chairman and Chief Executive Officer* | 2020 | 300,000 | — | — | 1,484,696 | 180,000 | — | 1,964,696 |
| David M. Chacko, M.D.<br>*Chief Financial Officer and Chief Business Officer* | 2020 | 314,000 | — | — | 207,461 | 141,300 | — | 662,761 |
| Gary Yeung[4]<br>*Former Chief Financial Officer and Chief Operating Officer* | 2020 | 356,792 | — | — | 446,460 | 99,600 | 27,600 | 930,452 |

(1) Represents the grant date fair value of stock options to purchase shares of our common stock computed in accordance with FASB ASC 718. See Note 10 to our consolidated financial statements for the year ended December 31, 2020 included with this prospectus for a description of the assumptions used in valuing our stock options.

(2) Represents annual performance bonuses earned with respect to 2020 as described below under "Bonus compensation."

(3) Represents housing allowance provided to Mr. Yeung.

(4) Mr. Yeung's employment terminated on December 15, 2020. The "Salary" figure for Mr. Yeung also includes $41,179 in accrued paid time off paid to Mr. Yeung in connection with his termination of employment.

## Narrative disclosure to compensation tables

The primary elements of compensation for our NEOs are base salary, annual performance bonuses and equity awards. The NEOs also participate in employee benefit plans and programs that we offer to our other employees, as described below.

***Annual base salary***

We pay our NEOs a base salary to compensate them for the satisfactory performance of services rendered to us. The base salary payable to each NEO is intended to provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities. Base salaries for our NEOs have generally been set at levels deemed necessary to attract and retain individuals with superior talent.

Our NEOs' base salaries in effect for 2020 were as follows: Dr. Lim, $300,000; Dr. Chacko, $314,000; and Mr. Yeung, $332,000. Effective January 2, 2021, the base salaries for Dr. Lim and Dr. Chacko were increased to $453,800 and $342,500, respectively.

***Bonus compensation***

From time to time, our board of directors or compensation committee may approve bonuses for our NEOs based on individual performance, company performance, or as otherwise determined appropriate. Pursuant to their respective employment letter agreements, each NEO has an established target annual bonus amount. For 2020, our NEOs' target bonuses, expressed as a percentage of annual base salary, were 40% for Dr. Lim, 30% for Dr. Chacko, and 30% for Mr. Yeung.

For 2020, annual bonuses were based on corporate performance and each individual NEO's performance as it relates to his or her area of responsibility, except for Mr. Yeung, who received his target bonus for 2020 as part of his separation agreement, as described below. The annual bonuses paid to our NEOs for 2020 are reflected in the Summary Compensation Table above.

The 2021 target annual bonus amounts for each NEO, expressed as a percentage of annual base salary, are 50% for Dr. Lim and 35% for Dr. Chacko.

***Equity-based incentive awards***

Our equity-based incentive awards are designed to align our interests and the interests of our stockholders with those of our employees and consultants, including our NEOs. The board of directors and compensation committee is responsible for approving equity grants. We typically grant equity awards to new hires upon their commencing employment with us. Generally, our equity awards vest over four years, subject to the employee's continued employment with us on each vesting date.

In September 2020, we granted Dr. Lim, Dr. Chacko, and Mr. Yeung options to purchase 2,150,000 shares, 300,426 shares and 646,522 shares, respectively, of our common stock under our 2018 Plan. The options were granted at an exercise price of $1.04 per share, which our board of directors determined was equal to the fair market value per share of our common stock on the date of grant. The options are eligible to vest over a period of four years, with 1/48th of the options vesting on a monthly basis following the vesting commencement date, or September 23, 2020, subject to continuous service through each vesting date. Dr. Lim and Mr. Yeung early exercised all of these options, and Dr. Chacko early exercised 80,000 of these options for restricted shares, in each case subject to the same vesting schedule. Mr. Yeung held 619,584 restricted shares from such award at the time of the termination of his employment in December 2020, which we repurchased from him in December 2020. These stock options, and any restricted shares issued upon early exercise of these stock options, are eligible for accelerated vesting on the terms provided in each executive's employment letter.

***Employment letter agreements with our NEOs***

*Employment letter agreement with Dr. Lim*

We have entered into an employment letter agreement with Dr. Lim, which governs the terms of his employment with us as Chairman of our board of directors and as our Chief Executive Officer. Pursuant to his letter agreement, Dr. Lim is entitled to an annual base salary and an annual performance bonus with a target amount of 50% of his base salary. Dr. Lim's employment is at-will.

Regardless of the manner in which his service terminates, Dr. Lim is entitled to receive amounts previously earned during his term of service, including unpaid salary and bonus and cash out of unused vacation or paid time off. In addition, Dr. Lim is entitled to certain severance benefits under his employment letter agreement in the event of his termination under certain circumstances, subject to his execution of a release of claims and compliance with post-termination obligations.

Dr. Lim's letter agreement provides for severance benefits for certain terminations that arise during and outside a change in control period. Upon a termination without cause or resignation for good reason outside of

a change in control period (as such terms are defined below), Dr. Lim is entitled to: (i) payment equal to 9 months (such applicable period, the severance period) of his then-current base salary, paid in a lump sum, and (ii) payment or reimbursement of the Consolidated Omnibus Budget Reconciliation Act (COBRA) premiums for him and his eligible dependents until the end of the severance period.

Upon a termination without cause or resignation for good reason within 12 months following a change in control (such period, the change in control period), Dr. Lim is entitled to: (i) payment equal to 12 months of his then-current base salary, paid in a lump sum; (ii) an amount equal to his target annual bonus for the year in which the termination occurs, paid in a lump sum; (iii) payment or reimbursement of the COBRA premiums for him and his eligible dependents until the end of such 12-month period; and (iv) accelerated vesting of any unvested time-based vesting equity awards.

For purposes of Dr. Lim's employment letter agreement:

- "cause" generally means his (i) commission of an act of fraud, embezzlement or dishonesty, or the commission of some other illegal act by him, that has a demonstrable adverse impact on us or any successor or affiliate thereof; (ii) conviction of, or plea of guilty or no contest to, a felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (iii) any intentional, unauthorized use or disclosure by him of confidential information or trade secrets of us or any successor or affiliate thereof; (iv) gross negligence, insubordination or material violation of any duty of loyalty to us or any successor or affiliate thereof, or any other demonstrable material misconduct on his part; (v) ongoing and repeated failure or refusal to perform or neglect of his duties as required by his employment letter agreement or ongoing and repeated failure or refusal to comply with the instructions given to him by our board of directors, which failure, refusal or neglect continues for 15 days following his receipt of written notice from our board of directors stating with specificity the nature of such failure, refusal or neglect; or (vi) willful, material breach of any company policy or any material provision of his employment letter agreement or his proprietary information and inventions agreement.
- "change in control" generally means (i) a merger or consolidation of us with or into any other corporation or other entity or person; (ii) a sale, lease, exchange or other transfer in one transaction or a series of related transactions of all or substantially all of our assets; or (iii) any other transaction, including the sale by us of new shares of our capital stock or a transfer of existing shares of our capital stock, the result of which is that a third party that is not an affiliate of ours or our stockholders (or a group of third parties not affiliated with us or our stockholders) immediately prior to such transaction acquires or holds our capital stock representing a majority of our outstanding voting power immediately following such transaction; provided that the following events shall not constitute a "change in control": (a) a transaction (other than a sale of all or substantially all of our assets) in which the holders of our voting securities immediately prior to the merger or consolidation hold, directly or indirectly, at least a majority of the voting securities in the successor corporation or its parent immediately after the merger or consolidation; (b) a sale, lease, exchange or other transaction in one transaction or a series of related transactions of all or substantially all of our assets to an affiliate of ours; (c) an initial public offering of any of our securities; (d) a reincorporation of us solely to change our jurisdiction; or (e) a transaction undertaken for the primary purpose of creating a holding company that will be owned in substantially the same proportion by the persons who held our securities immediately before such transaction.
- "good reason" generally means a resignation that occurs following the occurrence of any of the following without his written consent: (i) a material diminution in his authority, duties or responsibilities; (ii) a material diminution in his base compensation, unless such a reduction is imposed across-the-board to our senior management; (iii) a material change in the geographic location at which he must perform his duties; or

(iv) any other action or inaction that constitutes a material breach by us or any successor or affiliate of our or its obligations to him under his employment letter agreement.

***Employment letter agreement with Dr. Chacko***

We have entered into an employment letter agreement with Dr. Chacko, which governs the terms of his employment with us as our Chief Financial Officer. Pursuant to his letter agreement, Dr. Chacko is entitled to an annual base salary and an annual performance bonus with a target amount of 35% of his base salary. Dr. Chacko's employment is at-will.

Regardless of the manner in which his service terminates, Dr. Chacko is entitled to receive amounts previously earned during his term of service, including unpaid salary and bonus and cash out of unused vacation or paid time off. In addition, Dr. Chacko is entitled to certain severance benefits under his employment letter agreement in the event of his termination under certain circumstances, subject to his execution of a release of claims and compliance with post-termination obligations.

Dr. Chacko's letter agreement provides for severance benefits for certain terminations that arise during and outside a change in control period. Upon a termination without cause or resignation for good reason outside of a change in control period (as such term is defined below), Dr. Chacko is entitled to: (i) payment equal to 6 months (such applicable period, the severance period) of his then-current base salary, paid in a lump sum, and (ii) payment or reimbursement of the COBRA premiums for him and his eligible dependents until the end of the severance period.

Upon a termination without cause or resignation for good reason within 12 months following a change in control (such period, the change in control period), Dr. Chacko is entitled to: (i) payment equal to 9 months of his then-current base salary, paid in a lump sum; (ii) an amount equal to his target annual bonus for the year in which the termination occurs, paid in a lump sum; (iii) payment or reimbursement of the COBRA premiums for him and his eligible dependents until the end of such 9-month period; and (iv) accelerated vesting of any unvested time-based vesting equity awards.

For purposes of Dr. Chacko's employment letter agreement, the terms cause, change in control and good reason generally have the same meanings as given to such terms in Dr. Lim's employment agreement described above.

***Release agreement with Mr. Yeung***

On December 15, 2020, Mr. Yeung's employment as our Chief Financial Officer and Chief Operating Officer terminated. In connection with his separation, we entered into a release agreement with Mr. Yeung, pursuant to which we agreed to pay him his target annual bonus for 2020 in the amount of $99,600, payable in a lump sum following the effectiveness of his release. Pursuant to his release, certain unvested restricted shares were forfeited by Mr. Yeung or repurchased by us pursuant to the terms of the award agreements.

***Outstanding equity awards at fiscal year-end***

The following table sets forth information with respect to outstanding equity awards for each of our NEOs as of December 31, 2020.

| | | Option awards | | | | Stock awards | |
|---|---|---|---|---|---|---|---|
| | Grant date | Number of securities underlying unexercised options exercisable (#) | Number of securities underlying unexercised options unexercisable (#) | Option exercise price ($) | Option expiration date | Number of shares or units of stock that have not vested (#) | Market value of shares or units of stock that have not vested ($)[5] |
| Jonathan E. Lim, M.D. | 9/23/2020[1] | — | — | — | — | 2,015,625[3] | |
| | 12/11/2019[2] | — | — | — | — | 281,250[4] | |
| David M. Chacko, M.D. | 9/23/2020[1] | — | — | — | — | 75,000[3] | |
| | 9/23/2020[1] | 13,776 | 206,650 | 1.04 | 9/22/2030 | — | — |
| | 12/11/2019[2] | 31,250 | 93,750 | 0.56 | 12/10/2029 | — | — |
| | 8/21/2019[2] | 46,875 | 500,000 | 0.56 | 8/20/2029 | — | — |
| Gary Yeung | — | — | — | — | — | — | — |

(1) Stock option award vests over a period of four years with 1/48th of the shares underlying the option vesting on a monthly basis following the vesting commencement date (September 23, 2020), subject to continued service through each vesting date, and subject to accelerated vesting in certain circumstances as described above under "Employment letter agreements with our NEOs."

(2) Stock option award vests over a period of four years with 25% of the shares underlying the option vesting on the one year anniversary of the vesting commencement date (December 11, 2019 for Drs. Lim and Chacko's December 2019 grants and August 12, 2019 for Dr. Chacko's August 2019 grant) and 1/48th of the shares underlying the option vesting on a monthly basis thereafter, subject to continued service through each vesting date, and subject to accelerated vesting in certain circumstances as described above under "Employment letter agreements with our NEOs."

(3) Represents restricted shares issued upon early exercise of stock options originally granted on September 23, 2020 at an exercise price of $1.04 per share, which options were subject to the standard vesting schedule described in footnote (1) above. The remaining restricted shares will vest in equal monthly installments until fully vested on September 23, 2024, subject to accelerated vesting in certain circumstances as described above under "Employment letter agreements with our NEOs."

(4) Represents restricted shares issued upon early exercise of stock options originally granted on December 11, 2019 at an exercise price of $0.56 per share, which options were subject to the standard vesting schedule described in footnote (2) above. The remaining restricted shares will vest in equal monthly installments until fully vested on December 11, 2023, subject to accelerated vesting in certain circumstances as described above under "Employment letter agreements with our NEOs."

(5) Since we have not yet completed this offering, the market value was computed using $ per share, which is the midpoint of the price range set forth on the cover of this prospectus.

## Other elements of compensation

***Perquisites, health, welfare and retirement benefits***

Our NEOs are eligible to participate in our employee benefit plans, including our medical, dental, vision, group life, disability and accidental death and dismemberment insurance plans, in each case on the generally on same basis as all of our other employees.

We generally do not provide perquisites or personal benefits to our named executive officers, except in limited circumstances. In 2020, we provided an allowance of $27,600 to Mr. Yeung for housing in San Diego, California, where our principal offices are located. Our board of directors may elect to adopt qualified or non-qualified benefit plans in the future if it determines that doing so is in our best interests.

***401(k) plan***

We maintain a defined contribution employee retirement plan (401(k)) plan, for our employees. Our NEOs are eligible to participate in the 401(k) plan on the same basis as our other employees. The 401(k) plan is intended

to qualify as a tax-qualified plan under Section 401(a) of the Internal Revenue Code. The 401(k) plan provides that each participant may make pre-tax deferrals from his or her compensation up to the statutory limit, which is $19,500 for calendar year 2021, and other testing limits. Participants that are 50 years or older can also make "catch-up" contributions, which in calendar year 2021 may be up to an additional $6,500 above the statutory limit. Although the 401(k) plan provides for discretionary matching and profit-sharing contributions, we currently do not make either type of contribution to the 401(k) plan. Participant contributions are held and invested, pursuant to the participant's instructions, by the plan's trustee.

***Nonqualified deferred compensation***

We do not maintain nonqualified defined contribution plans or other nonqualified deferred compensation plans. Our board of directors may elect to provide our officers and other employees with non-qualified defined contribution or other nonqualified deferred compensation benefits in the future if it determines that doing so is in our best interests.

***Termination or change in control benefits***

Our NEOs may become entitled to certain benefits or enhanced benefits in connection with a change in control of our company. Each of our NEOs' employment letter agreement entitles him to certain benefits upon a qualifying termination and in connection with a change in control of our company. For additional discussion, please see "Employment letter agreements with our NEOs."

## Incentive award plans

***2021 incentive award plan***

Prior to this offering, we intend to adopt and ask our stockholders to approve the 2021 Plan, which would become effective in connection with this offering. Under the 2021 Plan, we may grant cash and equity incentive awards to eligible service providers in order to attract, motivate and retain the talent for which we compete. The material terms of the 2021 Plan, as it is currently contemplated, are summarized below. Our board of directors is still in the process of developing, approving and implementing the 2021 Plan and, accordingly, this summary is subject to change.

*Eligibility and administration.* Our employees, consultants and directors, and employees and consultants of our subsidiaries, will be eligible to receive awards under the 2021 Plan. Following this offering, the 2021 Plan will generally be administered by our board of directors with respect to awards to non-employee directors and by our compensation committee with respect to other participants, each of which may delegate its duties and responsibilities to committees of our directors and/or officers (referred to collectively as the plan administrator below), subject to certain limitations that may be imposed under the 2021 Plan, Section 16 of the Exchange Act and/or stock exchange rules, as applicable. The plan administrator will have the authority to make all determinations and interpretations under, prescribe all forms for use with, and adopt rules for the administration of, the 2021 Plan, subject to its express terms and conditions. The plan administrator will also set the terms and conditions of all awards under the 2021 Plan, including any vesting and vesting acceleration conditions.

*Limitation on awards and shares available.* The number of shares initially available for issuance under awards granted pursuant to the 2021 Plan will be the sum of (i) shares of our common stock, plus (ii) any shares subject to outstanding awards under the 2018 Plan as of the effective date of the 2021 Plan that become available for issuance under the 2021 Plan thereafter in accordance with its terms. The number of shares initially available for issuance will be increased by an annual increase on January 1 of each calendar year beginning in 2022 and ending in 2031, equal to the lesser of (1) 5% of the shares of common stock outstanding

on the final day of the immediately preceding calendar year and (2) such smaller number of shares as determined by our board of directors. No more than shares of common stock may be issued upon the exercise of incentive stock options (within the meaning of Section 422 of the Code) (ISOs) under the 2021 Plan. Shares issued under the 2021 Plan may be authorized but unissued shares, shares purchased in the open market or treasury shares.

If an award under the 2021 Plan or the 2018 Plan expires, lapses or is terminated, exchanged for cash, surrendered, repurchased, canceled without having been fully exercised or forfeited, any shares subject to such award will, as applicable, become or again be available for new grants under the 2021 Plan. Awards granted under the 2021 Plan upon the assumption of, or in substitution for, awards authorized or outstanding under a qualifying equity plan maintained by an entity with which we enter into a merger or similar corporate transaction will not reduce the shares available for grant under the 2021 Plan.

*Awards*. The 2021 Plan provides for the grant of stock options, including ISOs and nonqualified stock options (NSOs), restricted stock, dividend equivalents, restricted stock units (RSUs), stock appreciation rights (SARs), and other stock or cash-based awards. Certain awards under the 2021 Plan may constitute or provide for a deferral of compensation, subject to Section 409A of the Internal Revenue Code, which may impose additional requirements on the terms and conditions of such awards. All awards under the 2021 Plan will be set forth in award agreements, which will detail the terms and conditions of the awards, including any applicable vesting and payment terms and post-termination exercise limitations. A brief description of each award type follows.

- *Stock options*. Stock options provide for the purchase of shares of our common stock in the future at an exercise price set on the grant date. ISOs, by contrast to NSOs, may provide tax deferral beyond exercise and favorable capital gains tax treatment to their holders if certain holding period and other requirements of the Internal Revenue Code are satisfied. The exercise price of a stock option will not be less than 100% of the fair market value of the underlying share on the date of grant (or 110% in the case of ISOs granted to certain significant stockholders), except with respect to certain substitute options granted in connection with a corporate transaction. The term of a stock option may not be longer than ten years (or five years in the case of ISOs granted to certain significant stockholders). Vesting conditions determined by the plan administrator may apply to stock options and may include continued service, performance and/or other conditions. ISOs generally may be granted only to our employees and employees of our parent or subsidiary corporations, if any.
- *SARs*. SARs entitle their holder, upon exercise, to receive from us an amount equal to the appreciation of the shares subject to the award between the grant date and the exercise date. The exercise price of a SAR will not be less than 100% of the fair market value of the underlying share on the date of grant (except with respect to certain substitute SARs granted in connection with a corporate transaction), and the term of a SAR may not be longer than ten years. Vesting conditions determined by the plan administrator may apply to SARs and may include continued service, performance and/or other conditions.
- *Restricted stock and RSUs*. Restricted stock is an award of nontransferable shares of our common stock that remain forfeitable unless and until specified conditions are met, and which may be subject to a purchase price. RSUs are contractual promises to deliver shares of our common stock in the future, which may also remain forfeitable unless and until specified conditions are met and may be accompanied by the right to receive the equivalent value of dividends paid on shares of our common stock prior to the delivery of the underlying shares. Delivery of the shares underlying RSUs may be deferred under the terms of the award or at the election of the participant, if the plan administrator permits such a deferral. Conditions applicable to restricted stock and RSUs may be based on continuing service, the attainment of performance goals and/or such other conditions as the plan administrator may determine.

- *Other stock or cash-based awards*. Other stock or cash-based awards are awards of cash, fully vested shares of our common stock and other awards valued wholly or partially by referring to, or otherwise based on, shares of our common stock. Other stock or cash-based awards may be granted to participants and may also be available as a payment form in the settlement of other awards, as standalone payments and as payment in lieu of base salary, bonus, fees or other cash compensation otherwise payable to any individual who is eligible to receive awards. The plan administrator will determine the terms and conditions of other stock or cash-based awards, which may include vesting conditions based on continued service, performance and/or other conditions.

*Performance awards.* Performance awards include any of the foregoing awards that are granted subject to vesting and/or payment based on the attainment of specified performance goals or other criteria the plan administrator may determine, which may or may not be objectively determinable. Performance criteria upon which performance goals are established by the plan administrator may include: net earnings or losses (either before or after one or more of interest, taxes, depreciation, amortization and non-cash equity-based compensation expense); gross or net sales or revenue or sales or revenue growth; net income (either before or after taxes) or adjusted net income; profits (including, but not limited to, gross profits, net profits, profit growth, net operation profit or economic profit), profit return ratios or operating margin; budget or operating earnings (either before or after taxes or before or after allocation of corporate overhead and bonus); cash flow (including operating cash flow and free cash flow or cash flow return on capital); return on assets; return on capital or invested capital; cost of capital; return on stockholders' equity; total stockholder return; return on sales; costs, reductions in costs and cost control measures; expenses; working capital; earnings or loss per share; adjusted earnings or loss per share; price per share or dividends per share (or appreciation in or maintenance of such price or dividends); regulatory achievements or compliance; implementation, completion or attainment of objectives relating to research, development, regulatory, commercial or strategic milestones or developments; market share; economic value or economic value added models; division, group or corporate financial goals; customer satisfaction/growth; customer service; employee satisfaction; recruitment and maintenance of personnel; human resources management; supervision of litigation and other legal matters; strategic partnerships and transactions; financial ratios (including those measuring liquidity, activity, profitability or leverage); debt levels or reductions; sales-related goals; financing and other capital raising transactions; cash on hand; acquisition activity; investment sourcing activity; and marketing initiatives, any of which may be measured in absolute terms or as compared to any incremental increase or decrease. Such performance goals also may be based solely by reference to our performance or the performance of a subsidiary, division, business segment or business unit, or based upon performance relative to performance of other companies or upon comparisons of any of the indicators of performance relative to performance of other companies.

*Director compensation.* The 2021 Plan provides that the plan administrator may establish compensation for non-employee directors from time to time subject to the 2021 Plan's limitations. Prior to commencing this offering, our stockholders will approve the initial terms of our non-employee director compensation program, which is described below under the heading "Director compensation." Our board of directors or its authorized committee may modify the non-employee director compensation program from time to time in the exercise of its business judgment, taking into account such factors, circumstances and considerations as it shall deem relevant from time to time, provided that the sum of any cash compensation or other compensation and the grant date fair value (as determined in accordance with FASB ASC 718, or any successor thereto) of any equity awards granted as compensation for services as a non-employee director during any fiscal year may not exceed $ , increased to $ , in the fiscal year of a non-employee director's initial service as a non-employee director (which limits will not apply to any non-employee director that serves in any additional capacity with the company for which he or she receives compensation or any compensation paid to any non-employee director during the calendar year in which this offering occurs). The plan administrator may

make exceptions to this limit for individual non-employee directors in extraordinary circumstances, as the plan administrator may determine in its discretion, provided that the non-employee director receiving such additional compensation may not participate in the decision to award such compensation or in other contemporaneous compensation decisions involving non-employee directors.

*Certain transactions.* In connection with certain transactions and events affecting our common stock, including a change in control, or change in any applicable laws or accounting principles, the plan administrator has broad discretion to take action under the 2021 Plan to prevent the dilution or enlargement of intended benefits, facilitate such transaction or event, or give effect to such change in applicable laws or accounting principles. This includes canceling awards in exchange for either an amount in cash or other property with a value equal to the amount that would have been obtained upon exercise or settlement of the vested portion of such award or realization of the participant's rights under the vested portion of such award, accelerating the vesting of awards, providing for the assumption or substitution of awards by a successor entity, adjusting the number and type of shares available, replacing awards with other rights or property or terminating awards under the 2021 Plan. In the event of a change in control where the acquirer does not assume awards granted under the 2021 Plan, awards issued under the 2021 Plan will be subject to accelerated vesting such that 100% of the awards will become vested and exercisable or payable, as applicable. In addition, in the event of certain non-reciprocal transactions with our stockholders, or an "equity restructuring," the plan administrator will make equitable adjustments to the 2021 Plan and outstanding awards as it deems appropriate to reflect the equity restructuring.

*Foreign participants, claw-back provisions, transferability and participant payments.* With respect to foreign participants, the plan administrator may modify award terms, establish subplans and/or adjust other terms and conditions of awards, subject to the share limits described above. All awards will be subject to the provisions of any claw-back policy implemented by our company to the extent set forth in such claw-back policy or in the applicable award agreement. With limited exceptions for estate planning, domestic relations orders, certain beneficiary designations and the laws of descent and distribution, awards under the 2021 Plan are generally non-transferable prior to vesting and are exercisable only by the participant. With regard to tax withholding obligations arising in connection with awards under the 2021 Plan and exercise price obligations arising in connection with the exercise of stock options under the 2021 Plan, the plan administrator may, in its discretion, accept cash, wire transfer, or check, shares of our common stock that meet specified conditions, a "market sell order" or such other consideration as it deems suitable or any combination of the foregoing.

*Plan amendment and termination.* Our board of directors may amend or terminate the 2021 Plan at any time; however, except in connection with certain changes in our capital structure, stockholder approval will be required for any amendment that increases the number of shares available under the 2021 Plan. The plan administrator will have the authority, without the approval of our stockholders, to amend any outstanding stock option or SAR to reduce its price per share. No award may be granted pursuant to the 2021 Plan after the tenth anniversary of the date on which our board of directors adopts the 2021 Plan.

*Securities laws.* The 2021 Plan is intended to conform to all provisions of the Securities Act, and the Exchange Act and any and all regulations and rules promulgated by the SEC thereunder, including, without limitation, Exchange Act Rule 16b-3. The 2021 Plan will be administered, and awards will be granted and may be exercised, only in such a manner as to conform to such laws, rules and regulations.

*Federal income tax consequences.* The material federal income tax consequences of the 2021 Plan under current federal income tax law are summarized in the following discussion, which deals with the general US federal income tax principles applicable to the 2021 Plan. The following discussion is based upon laws, regulations, rulings and decisions now in effect, all of which are subject to change. Foreign, state and local tax

laws, and employment, estate and gift tax considerations are not discussed due to the fact that they may vary depending on individual circumstances and from locality to locality.

- *Stock options and SARs*. A 2021 Plan participant generally will not recognize taxable income and we generally will not be entitled to a tax deduction upon the grant of a stock option or SAR. The tax consequences of exercising a stock option and the subsequent disposition of the shares received upon exercise will depend upon whether the option qualifies as an ISO or an NSO. Upon exercising an NSO when the fair market value of our stock is higher than the exercise price of the option, a 2021 Plan participant generally will recognize taxable income at ordinary income tax rates equal to the excess of the fair market value of the stock on the date of exercise over the purchase price, and we (or our subsidiaries, if any) generally will be entitled to a corresponding tax deduction for compensation expense, in the amount equal to the amount by which the fair market value of the shares purchased exceeds the purchase price for the shares. Upon a subsequent sale or other disposition of the option shares, the participant will recognize a short-term or long-term capital gain or loss in the amount of the difference between the sales price of the shares and the participant's tax basis in the shares.

  Upon exercising an ISO, a 2021 Plan participant generally will not recognize taxable income, and we will not be entitled to a tax deduction for compensation expense. However, upon exercise, the amount by which the fair market value of the shares purchased exceeds the purchase price will be an item of adjustment for alternative minimum tax purposes. The participant will recognize taxable income upon a sale or other taxable disposition of the option shares. For federal income tax purposes, dispositions are divided into two categories: qualifying and disqualifying. A qualifying disposition generally occurs if the sale or other disposition is made more than two years after the date the option was granted and more than one year after the date the shares are transferred upon exercise. If the sale or disposition occurs before these two periods are satisfied, then a disqualifying disposition generally will result.

  Upon a qualifying disposition of ISO shares, the participant will recognize long-term capital gain in an amount equal to the excess of the amount realized upon the sale or other disposition of the shares over their purchase price. If there is a disqualifying disposition of the shares, then the excess of the fair market value of the shares on the exercise date (or, if less, the price at which the shares are sold) over their purchase price will be taxable as ordinary income to the participant. If there is a disqualifying disposition in the same year of exercise, it eliminates the item of adjustment for alternative minimum tax purposes. Any additional gain or loss recognized upon the disposition will be recognized as a capital gain or loss by the participant.

  We will not be entitled to any tax deduction if the participant makes a qualifying disposition of ISO shares. If the participant makes a disqualifying disposition of the shares, we should be entitled to a tax deduction for compensation expense in the amount of the ordinary income recognized by the participant.

  Upon exercising or settling a SAR, a 2021 Plan participant will recognize taxable income at ordinary income tax rates, and we should be entitled to a corresponding tax deduction for compensation expense, in the amount paid or value of the shares issued upon exercise or settlement. Payments in shares will be valued at the fair market value of the shares at the time of the payment, and upon the subsequent disposition of the shares the participant will recognize a short-term or long-term capital gain or loss in the amount of the difference between the sales price of the shares and the participant's tax basis in the shares.

- *Restricted stock and RSUs*. A 2021 Plan participant generally will not recognize taxable income at ordinary income tax rates and we generally will not be entitled to a tax deduction upon the grant of restricted stock (RSUs). Upon the termination of restrictions on restricted stock or the payment of RSUs, the participant will recognize taxable income at ordinary income tax rates, and we should be entitled to a corresponding tax deduction for compensation expense, in the amount paid to the participant or the amount by which the then

fair market value of the shares received by the participant exceeds the amount, if any, paid for them. Upon the subsequent disposition of any shares, the participant will recognize a short-term or long-term capital gain or loss in the amount of the difference between the sales price of the shares and the participant's tax basis in the shares. However, a 2021 Plan participant granted restricted stock that is subject to forfeiture or repurchase through a vesting schedule such that it is subject to a "risk of forfeiture" (as defined in Section 83 of the Code) may make an election under Section 83(b) of the Code to recognize taxable income at ordinary income tax rates, at the time of the grant, in an amount equal to the fair market value of the shares of common stock on the date of grant, less the amount paid, if any, for the shares. We will be entitled to a corresponding tax deduction for compensation, in the amount recognized as taxable income by the participant. If a timely Section 83(b) election is made, the participant will not recognize any additional ordinary income on the termination of restrictions on restricted stock, and we will not be entitled to any additional tax deduction.

- *Other stock or cash-based awards*. A 2021 Plan participant will not recognize taxable income and we will not be entitled to a tax deduction upon the grant of other stock or cash-based awards until cash or shares are paid or distributed to the participant. At that time, any cash payments or the fair market value of shares that the participant receives will be taxable to the participant at ordinary income tax rates and we should be entitled to a corresponding tax deduction for compensation expense. Payments in shares will be valued at the fair market value of the shares at the time of the payment, and upon the subsequent disposition of the shares, the participant will recognize a short-term or long-term capital gain or loss in the amount of the difference between the sales price of the shares and the participant's tax basis in the shares.

***2018 Equity incentive plan***

Our board of directors adopted the 2018 Plan in July 2018 and our stockholders approved our 2018 Plan in July 2018. Our 2018 Plan was most recently amended by our board of directors and our stockholders in February 2021.

*Eligibility and administration.* Our employees, consultants and directors, and employees and consultants of our subsidiaries, are eligible to receive awards under the 2018 Plan. Our board of directors, or a duly authorized committee of our board of directors to which the board delegates its administrative authority, administers our 2018 Plan and is referred to as the plan administrator herein. Under our 2018 Plan, the plan administrator has the authority to, among other things, select the persons to whom awards are to be made, to determine the type or types of awards to be granted to each person, determine the number of awards to grant, determine the number of shares to be subject to awards, and the terms and conditions of awards, and make all other determinations and decisions and to take all other actions necessary or advisable for the administration of the 2018 Plan. The plan administrator is also authorized to establish, adopt, amend or revise rules relating to administration of the 2018 Plan, subject to certain restrictions.

*Shares available.* Subject to certain adjustments, awards may be made under the 2018 Plan covering up to 25,855,014 shares of common stock. Shares subject to stock awards granted under our 2018 Plan that expire, lapse or are terminated, surrendered, cancelled without having been fully exercised or that are forfeited or repurchased, in any case in a manner that results in any shares of common stock covered by the award not being issued or being so reacquired, then those shares will again become available for issuance under the 2018 Plan. This includes shares used to pay the exercise price of a stock award or to satisfy the tax withholding obligations related to a stock award.

As of December 31, 2020, 7,849,747 shares of our common stock were subject to outstanding awards under the 2018 Plan and 2,771,641 shares of our common stock remained available for future issuance under the 2018 Plan. Following the adoption of the 2021 Plan, no further awards will be granted under the 2018 Plan.

Effective February 22, 2021, the share reserve under our 2018 Plan was increased to 25,855,014 shares pursuant to an amendment approved by our board of directors and our stockholders. As of March 31, 2021, 12,036,860 shares of our common stock were subject to outstanding awards under the 2018 Plan and 8,062,989 shares of our common stock remained available for issuance under the 2018 Plan.

*Awards*. The 2018 Plan provides for the grant of ISOs to employees, including employees of any parent or subsidiary, and for the grant of NSOs, restricted stock awards, RSUs, and other stock-based awards to employees, directors and consultants. All awards under the 2018 Plan will be set forth in award agreements, which will detail the terms and conditions of the awards, including any applicable vesting and payment terms and post-termination exercise limitations. A brief description of each award type follows.

- *Stock options*. Stock options provide for the purchase of shares of our common stock in the future at an exercise price set on the grant date. ISOs, by contrast to NSOs, may provide tax deferral beyond exercise and favorable capital gains tax treatment to their holders if certain holding period and other requirements of the Internal Revenue Code are satisfied. The exercise price of a stock option will not be less than 100% of the fair market value of the underlying share on the date of grant (or 110% in the case of ISOs granted to certain significant stockholders), except with respect to certain substitute options granted in connection with a corporate transaction. The term of a stock option may not be longer than ten years (or five years in the case of ISOs granted to certain significant stockholders). Vesting conditions determined by the plan administrator may apply to stock options and may include continued service, performance and/or other conditions. ISOs generally may be granted only to our employees and employees of our parent or subsidiary corporations, if any.
- *Restricted stock and RSUs*. Restricted stock is an award of shares of our common stock that remain forfeitable or subject to repurchase at the original purchase price paid by the holder unless and until specified conditions are met, and which may be subject to a purchase price. RSUs are contractual promises to deliver shares of our common stock in the future, which may also remain forfeitable unless and until specified conditions are met and may be accompanied by the right to receive the equivalent value of dividends paid on shares of our common stock prior to the delivery of the underlying shares. Delivery of the shares underlying RSUs may be deferred under the terms of the award or at the election of the participant, if the plan administrator permits such a deferral. Conditions applicable to restricted stock and RSUs may be based on continuing service, the attainment of performance goals and/or such other conditions as the plan administrator may determine.
- *Other stock-based awards*. Other stock-based awards are awards of fully vested shares of our common stock and other awards valued wholly or partially by referring to, or otherwise based on, shares of our common stock. Other stock-based awards may be granted to participants and may also be available as a payment form in the settlement of other awards, as standalone payments and as payment in lieu of base salary, bonus, fees or other cash compensation otherwise payable to any individual who is eligible to receive awards. The plan administrator will determine the terms and conditions of other stock or cash-based awards, which may include vesting conditions based on continued service, performance and/or other conditions.

*Certain transactions.* The plan administrator has broad discretion to equitably adjust the provisions of the 2018 Plan and the terms and conditions of existing and future awards, including with respect to aggregate number and type of shares subject to the 2018 Plan and awards granted pursuant to the 2018 Plan, to prevent the dilution or enlargement of intended benefits and/or facilitate necessary or desirable changes in the event of certain transactions and events affecting our common stock, such as stock dividends, stock splits, mergers, acquisitions, consolidations and other corporate transactions. The plan administrator may also provide for the acceleration, cash-out, termination, assumption, substitution or conversion of awards in the event of a change

in control or certain other unusual or nonrecurring events or transactions. In addition, in the event of certain non-reciprocal transactions with our stockholders (an equity restructuring) the plan administrator will make equitable adjustments to the 2018 Plan and outstanding awards as it deems appropriate to reflect the equity restructuring. In the event of a change in control where the acquirer does not assume awards granted under the 2018 Plan, with respect to awards issued under the 2018 Plan held by persons who have not experienced a termination of service, the 2018 Plan provides for accelerated vesting such that 100% of the awards will become vested and exercisable or payable, as applicable, immediately prior to the change in control.

*Plan amendment or termination*. Our board of directors has the authority to amend, suspend or terminate the 2018 Plan, provided that such action does not materially and adversely affect any award outstanding without the affected participant's consent. Stockholder approval of any amendment to the 2018 Plan will be obtained to the extent necessary and desirable to comply with any applicable law. Unless terminated sooner, the 2018 Plan will automatically terminate in July 2028.

*Securities laws and federal income tax consequences*. The 2018 Plan is designed to comply with applicable securities laws in the same manner as described above in the description of the 2021 Plan under the heading "—2021 incentive award plan—securities laws." The general US federal income tax consequences of awards under the 2018 Plan are the same as those described above with respect to similar awards in the description of the 2021 Plan under the heading "—2021 incentive award plan—federal income tax consequences."

***2021 Employee stock purchase plan***

In connection with this offering, we intend to adopt and ask our stockholders to approve the ESPP, which would become effective in connection with this offering. The material terms of the ESPP, as it is currently contemplated, are summarized below. Our board of directors is still in the process of considering the ESPP and, accordingly, this summary is subject to change.

*Shares available*. A total of shares of our common stock are initially reserved for issuance under our ESPP. In addition, the number of shares available for issuance under the ESPP will be annually increased on January 1 of each calendar year beginning in 2022 and ending in 2031, by an amount equal to the lesser of: (a) 1% of the shares outstanding on the final day of the immediately preceding calendar year and (b) such smaller number of shares as is determined by our board of directors. In no event will more than shares of our common stock be available for issuance under the ESPP.

*Eligibility and administration.* Our employees are eligible to participate in the ESPP if they meet the eligibility requirements under the ESPP established from time to time by the plan administrator. However, an employee may not be granted rights to purchase stock under our ESPP if such employee, immediately after the grant, would own (directly or through attribution) stock possessing 5% or more of the total combined voting power or value of all classes of our common or other class of stock. Our board of directors or its committee will have authority to interpret the terms of the ESPP and determine eligibility of participants. We expect that the compensation committee will be the initial administrator of the ESPP.

*Grant of rights.* The ESPP is intended to qualify under Section 423 of the Code and stock will be offered under the ESPP during offering periods. The length of the offering periods under the ESPP will be determined by the plan administrator and may be up to 27 months long. Employee payroll deductions will be used to purchase shares on each purchase date during an offering period. The number of purchase periods within, and purchase dates during each offering period will be established by the plan administrator prior to the commencement of each offering period. Offering periods under the ESPP will commence when determined by the plan administrator. The plan administrator may, in its discretion, modify the terms of future offering periods.

The ESPP permits participants to purchase common stock through payroll deductions of up to % of their eligible compensation, which includes a participant's gross base compensation for services to us, including overtime payments and excluding sales commissions, incentive compensation, bonuses, expense reimbursements, fringe benefits and other special payments. The plan administrator will establish a maximum number of shares that may be purchased by a participant during any offering period, which, in the absence of a contrary designation, will be shares. In addition, no employee will be permitted to accrue the right to purchase stock under the ESPP at a rate in excess of $25,000 worth of shares during any calendar year during which such a purchase right is outstanding (based on the fair market value per share of our common stock as of the first day of the offering period).

On the first trading day of each offering period, each participant will automatically be granted an option to purchase shares of our common stock. The option will be exercised on the applicable purchase date(s) during the offering period, to the extent of the payroll deductions accumulated during the applicable purchase period. The purchase price of the shares, in the absence of a contrary determination by the plan administrator, will be 85% of the lower of the fair market value of our common stock on the first trading day of the offering period or on the applicable purchase date, which will be the final trading day of the applicable purchase period. Participants may voluntarily end their participation in the ESPP at any time at least one week prior to the end of the applicable offering period (or such shorter or longer period specified by the plan administrator), and will be paid their accrued payroll deductions that have not yet been used to purchase shares of common stock. Participation ends automatically upon a participant's termination of employment.

A participant may not transfer rights granted under the ESPP other than by will, the laws of descent and distribution or as otherwise provided under the ESPP.

*Certain transactions.* In the event of certain transactions or events affecting our common stock, such as any stock dividend or other distribution, change in control, reorganization, merger, consolidation or other corporate transaction, the plan administrator will make equitable adjustments to the ESPP and outstanding rights. In addition, in the event of the foregoing transactions or events or certain significant transactions, including a change in control, the plan administrator may provide for (i) either the replacement of outstanding rights with other rights or property or termination of outstanding rights in exchange for cash, (ii) the assumption or substitution of outstanding rights by the successor or survivor corporation or parent or subsidiary thereof, if any, (iii) the adjustment in the number and type of shares of stock subject to outstanding rights, (iv) the use of participants' accumulated payroll deductions to purchase stock on a new purchase date prior to the next scheduled purchase date and termination of any rights under ongoing offering periods or (v) the termination of all outstanding rights. Under the ESPP, a change in control has the same definition as given to such term in the 2021 Plan.

*Plan amendment and termination.* The plan administrator may amend, suspend or terminate the ESPP at any time. However, stockholder approval of any amendment to the ESPP will be obtained for any amendment which increases the aggregate number or changes the type of shares that may be sold pursuant to rights under the ESPP, changes the corporations or classes of corporations whose employees are eligible to participate in the ESPP or changes the ESPP in any manner that would cause the ESPP to no longer be an employee stock purchase plan within the meaning of Section 423(b) of the Internal Revenue Code. The ESPP will terminate on the tenth anniversary of the date it is initially approved by our board of directors.

*Securities laws.* The ESPP has been designed to comply with various securities laws in the same manner as described above in the description of the 2021 Plan.

*Federal income taxes.* The material federal income tax consequences of the ESPP under current federal income tax law are summarized in the following discussion, which deals with the general tax principles

applicable to the ESPP. The following discussion is based upon laws, regulations, rulings and decisions now in effect, all of which are subject to change. Foreign, state and local tax laws, and employment, estate and gift tax considerations are not discussed due to the fact that they may vary depending on individual circumstances and from locality to locality.

The ESPP, and the right of participants to make purchases thereunder, is intended to qualify under the provisions of Section 423 of the Code. Under the applicable Code provisions, no income will be taxable to a participant until the sale or other disposition of the shares purchased under the ESPP. This means that an eligible employee will not recognize taxable income on the date the employee is granted an option under the ESPP (i.e., the first day of the offering period). In addition, the employee will not recognize taxable income upon the purchase of shares. Upon such sale or disposition, the participant will generally be subject to tax in an amount that depends upon the length of time such shares are held by the participant prior to disposing of them. If the shares are sold or disposed of more than two years from the first day of the offering period during which the shares were purchased and more than one year from the date of purchase, or if the participant dies while holding the shares, the participant (or his or her estate) will recognize ordinary income measured as the lesser of: (i) the excess of the fair market value of the shares at the time of such sale or disposition over the purchase price; or (ii) an amount equal to 15% of the fair market value of the shares as of the first day of the offering period. Any additional gain will be treated as long-term capital gain. If the shares are held for the holding periods described above but are sold for a price that is less than the purchase price, there is no ordinary income and the participating employee has a long-term capital loss for the difference between the sale price and the purchase price.

If the shares are sold or otherwise disposed of before the expiration of the holding periods described above, the participant will recognize ordinary income generally measured as the excess of the fair market value of the shares on the date the shares are purchased over the purchase price and we will be entitled to a tax deduction for compensation expense in the amount of ordinary income recognized by the employee. Any additional gain or loss on such sale or disposition will be long-term or short-term capital gain or loss, depending on how long the shares were held following the date they were purchased by the participant prior to disposing of them. If the shares are sold or otherwise disposed of before the expiration of the holding periods described above but are sold for a price that is less than the purchase price, the participant will recognize ordinary income equal to the excess of the fair market value of the shares on the date of purchase over the purchase price (and we will be entitled to a corresponding deduction), but the participant generally will be able to report a capital loss equal to the difference between the sales price of the shares and the fair market value of the shares on the date of purchase.

## Director compensation

From time to time, we have granted stock-based compensation to the non-employee members of our board of directors for their services as directors.

In September 2020, we granted Dr. Varney options to purchase 150,000 shares of our common stock and 100,000 shares of our common stock, in each case, under the 2018 Plan. The options were granted in connection with Dr. Varney’s service as an SAB member and his commencement of employment with us. The options vest over a period of four years, with 25% of the options vesting on the one year anniversary of the vesting commencement date, or August 15, 2020 and September 1, 2020, respectively, and 1/48th of the options vesting on a monthly basis thereafter, subject to Dr. Varney’s continuous service through each vesting date. The options were granted at an exercise price of $1.04 per share, which our board of directors determined was equal to the fair market value per share of our common stock on the date of grant.

Also in September 2020, we granted each of Dr. Bristol, Mr. Casdin, Dr. Multani, and Dr. Harding-Start an option to purchase 75,000 shares of our common stock under the 2018 Plan. The options vest over a period of four years with 1/48th of the options vesting on a monthly basis following the vesting commencement date, or September 23, 2020, subject to continuous service through each vesting date, and are early exercisable. The options were granted at an exercise price of $1.04 per share, which our board of directors determined was equal to the fair market value per share of our common stock on the date of grant. Dr. Bristol and Mr. Casdin early exercised these options (75,000 shares each) and Dr. Multani early exercised a portion of these options (50,000 shares) for restricted shares, in each case subject to the same vesting schedule.

In addition, we have reimbursed, and will continue to reimburse, our non-employee directors for their actual out-of-pocket costs and expenses incurred in connection with attending board and committee meetings.

The following table summarizes compensation received by our non-employee directors during the year ended December 31, 2020. Dr. Lim, our Chairman and Chief Executive Officer, and Dr. Varney, our Chairman of R&D and SAB member, are also members of our board of directors, but do not receive any additional compensation for their service as directors in addition to the compensation they receive as employees. Dr. Lim's compensation is described further above. Dr. Varney is currently a non-executive employee. For a description of the employment arrangements with Dr. Varney, please see "—Employment arrangements with Dr. Varney" below.

| Name | Fees earned or paid in cash ($) | Option awards ($)[1] | All other compensation ($)[2] | Total ($) |
|---|---|---|---|---|
| James A. Bristol, Ph.D. | — | 51,792 | — | 51,792 |
| Alexander W. Casdin | — | 51,792 | — | 51,792 |
| Valerie Harding-Start, Ph.D. | — | 51,792 | — | 51,792 |
| Pratik S. Multani, M.D. | — | 51,792 | — | 51,792 |
| Michael D. Varney, Ph.D. | — | 172,885 | 26,300 | 199,185 |

(1) Represents the grant date fair value of stock options to purchase shares of our common stock computed in accordance with FASB ASC 718. See Note 10 to our consolidated financial statements for the year ended December 31, 2020 included with this prospectus for a description of the assumptions used in valuing our stock options.

(2) Amounts in this column for Dr. Varney include the base salary paid to him for his role as Chairman of R&D during 2020.

The aggregate number of shares subject to stock options or restricted shares outstanding at December 31, 2020 for the individuals who served as non-employee directors during 2020 was as follows:

| Name | Number of securities underlying options outstanding at December 31, 2020 | Number of shares of restricted stock outstanding at December 31, 2020 |
|---|---|---|
| James A. Bristol, Ph.D. | — | 129,688 |
| Alexander W. Casdin | — | 129,688 |
| Valerie Harding-Start, Ph.D. | 225,000 | — |
| Pratik S. Multani, M.D. | 25,000 | 104,688 |
| Michael D. Varney, Ph.D. | 250,000 | — |

In connection with this offering, we intend to adopt and ask our stockholders to approve the initial terms of our non-employee director compensation program. The material terms of the non-employee director compensation program, as it is currently contemplated, are summarized below.

The non-employee director compensation policy will provide for annual retainer fees and/or long-term equity awards for our non-employee directors. We expect each non-employee director will receive an annual retainer

of $ . Non-employee directors serving as the chairs of the audit, compensation and nominating and corporate governance committees will receive additional annual retainers of $ , $ and $ , respectively. Non-employee directors serving as members of the audit, compensation and nominating and corporate governance committees will receive additional annual retainers of $ , $ and $ , respectively. The non-employee directors will also receive initial grants of options to purchase shares of our common stock, vesting over three years, upon election to the board of directors, and thereafter annual grants of options to purchase shares of our common stock, vesting on the first to occur of (i) the first anniversary of the grant date or (ii) the next occurring annual meeting of our stockholders.

Compensation under our non-employee director compensation policy will be subject to the annual limits on non-employee director compensation set forth in the 2021 Plan, as described above. Our board of directors or its authorized committee may modify the non-employee director compensation program from time to time in the exercise of its business judgment, taking into account such factors, circumstances and considerations as it shall deem relevant from time to time, subject to the annual limit on non-employee director compensation set forth in the 2021 Plan (which limits will not apply to any non-employee director that serves in any additional capacity with the company for which he or she receives compensation or any compensation paid to any non-employee director during the calendar year in which this offering occurs). As provided in the 2021 Plan, our board of directors or its authorized committee may make exceptions to this limit for individual non-employee directors in extraordinary circumstances, as the board of directors or its authorized committee may determine in its discretion, provided that the non-employee director receiving such additional compensation may not participate in the decision to award such compensation or in other compensation decisions involving non-employee directors.

***Employment arrangements with Dr. Varney***

We have entered into an employment letter agreement with Dr. Varney, which governs the terms of his employment with us as our Chairman of R&D. In this role, Dr. Varney also acts as a Senior Advisor to our Chief Executive Officer. Pursuant to his letter agreement, Dr. Varney is entitled to an annual base salary of $78,000. Dr. Varney also serves on our scientific advisory board, or SAB, but does not receive any additional cash compensation for such service. Dr. Varney's employment is at-will.

We have also entered into a scientific advisory board agreement with Dr. Varney, which governs the terms of his retention with us as a SAB member and as a consultant. Pursuant to his scientific advisory board agreement, Dr. Varney is subject to a non-competition covenant during the term of his service with us, as well as one-year post-termination non-solicitation of employees and consultants covenant and a perpetual confidentiality covenant, in addition to his obligations under our standard proprietary information and inventions agreement, which was entered into in connection with his commencement of employment with us.

## Limitations of liability and indemnification matters

Our amended and restated certificate of incorporation and our amended and restated bylaws provide that we will indemnify our directors and officers to the fullest extent permitted by the Delaware General Corporation Law, which prohibits our amended and restated certificate of incorporation from limiting the liability of our directors for the following:

- any breach of the director's duty of loyalty to us or our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper personal benefit.

Our amended and restated certificate of incorporation and our amended and restated bylaws also provide that if Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. This limitation of liability does not apply to liabilities arising under the federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission.

Our amended and restated certificate of incorporation and our amended and restated bylaws also provide that we shall have the power to indemnify our employees and agents to the fullest extent permitted by law. Our amended and restated bylaws also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in this capacity, regardless of whether our amended and restated bylaws would permit indemnification. We have obtained directors' and officers' liability insurance.

We have entered into separate indemnification agreements with our directors and executive officers, in addition to indemnification provided for in our amended and restated certificate of incorporation and amended and restated bylaws. These agreements, among other things, provide for indemnification of our directors and executive officers for expenses, judgments, fines and settlement amounts incurred by this person in any action or proceeding arising out of this person's services as a director or executive officer or at our request. We believe that these provisions in our amended and restated certificate of incorporation and amended and restated bylaws and indemnification agreements are necessary to attract and retain qualified persons as directors and executive officers.

The above description of the indemnification provisions of our amended and restated certificate of incorporation, our amended and restated bylaws and our indemnification agreements is not complete and is qualified in its entirety by reference to these documents, each of which is filed as an exhibit to the registration statement of which this prospectus is a part.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. Insofar as indemnification for liabilities under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable. There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

# Certain relationships and related person transactions

The following includes a summary of transactions since our inception in July 2018 to which we have been a party in which the amount involved exceeded or will exceed the lesser of $120,000 and one percent of the average of our total assets at year-end for the last two completed fiscal years, and in which any of our directors, executive officers or, to our knowledge, beneficial owners of more than 5% of our capital stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than equity and other compensation, termination, change in control and other arrangements, which are described under “Executive and director compensation.” We also describe below certain other transactions with our directors, executive officers and stockholders.

## Preferred stock financings

*Series A convertible preferred stock financings.* In October 2018, we entered into a Series A preferred stock purchase agreement, pursuant to which we sold to investors in an initial closing and subsequent closings from October 2018 to March 2019 in private placements an aggregate of 38,103,681 Series A preferred stock. The per share purchase price was $1.667, and we received gross proceeds of approximately $63.5 million.

*Series B convertible preferred stock financings.* In April 2020, we entered into a Series B preferred stock purchase agreement, pursuant to which we sold to investors in an initial closing and subsequent closings in April 2020, August 2020 and January 2021, respectively, in private placements, an aggregate of 43,412,773 shares of Series B-1 and B-2 convertible preferred stock. The Series B-1 per share purchase price was $5.00 and the Series B-2 per share purchase price was $7.50, and we received gross proceeds of approximately $256.9 million.

The following table sets forth the aggregate number of shares acquired by the listed directors, executive officers or holders of more than 5% of our capital stock, or their affiliates. Each outstanding share of convertible preferred stock, including the shares identified in the table below, will convert into shares of common stock at a ratio of one-for-one immediately prior to the closing of this offering.

| Participants | Series A convertible preferred stock | Series B-1 convertible preferred stock | Series B-2 convertible preferred stock |
|---|---|---|---|
| **5% or greater stockholders[1]** | | | |
| Entities affiliated with ARCH Venture Partners[2] | 4,200,000 | 6,800,000 | 2,266,666 |
| City Hill, LLC[3] | 6,081,233 | 336,000 | 112,000 |
| Entities affiliated with Colt Ventures, Ltd.[4] | 3,458,000 | 1,203,206 | 3,124,444 |
| Entities affiliated with Cormorant Asset Management[5] | 4,800,000 | 5,000,000 | 1,666,666 |
| **Officers and Directors** | | | |
| Jonathan E. Lim, M.D.[6] | 6,162,468 | — | — |
| Alexander W. Casdin[7] | 1,080,000 | — | — |

(1) Additional details regarding these stockholders and their equity holdings are provided in “Principal stockholders.”

(2) Represents securities acquired by ARCH Venture Fund X, L.P. and ARCH Venture Fund X Overage, L.P. Since December 2018, Dr. Lim, our Chairman and Chief Executive Officer, has been a venture partner of ARCH Venture Partners.

(3) Includes 3,081,233 shares acquired pursuant to the merger described below under “—Common stock issuance and merger” below. Dr. Lim, our Chairman and Chief Executive Officer, is the Managing Partner of City Hill, LLC.

(4) Represents securities held by Colt Erasca Partners, LLC, Colt Second Erasca Partners, LLC and Colt Third Erasca Partners, LLC.

(5) Represents securities acquired by Cormorant Global Healthcare Master Fund, LP, Cormorant Private Healthcare Fund II, LP and CRMA SPV, LP.

(6) Represents securities acquired by a family trust pursuant to the merger described below under "—Common stock issuance and merger" below. Dr. Lim is a co-trustee of the family trust.

(7) Represents securities acquired by Alexander W. Casdin and Reneo Capital SPV IV LP (Reneo SPV). Alexander W. Casdin is currently, and was at the time of the Series A convertible preferred stock financing, a member of our Board of Directors and the managing member of Reneo GP LLC, the general partner of Reneo SPV.

## Common stock issuance and merger

In July 2018, Dr. Lim assigned his founders common stock to City Hill Ignition, Inc. (CHI), to which we issued and sold 23,250,000 shares of common stock for an aggregate purchase price of $2,325. Conyee Lim, the spouse of Dr. Lim, was the President of CHI. City Hill, LLC and a family trust of Drs. Lim were the sole stockholders of CHI. In December 2018, CHI merged with and into Erasca CHI Merger Sub LLC, a wholly-owned subsidiary of Erasca (the Merger). At the consummation of the Merger, the issued and outstanding shares of our common stock held by CHI were extinguished and cancelled in exchange for the receipt by City Hill, LLC and the Lim family trust, of 7,750,000 shares and 15,500,000 shares of our common stock, respectively. Additionally, 3,081,233 and 6,162,468 shares of our Series A convertible preferred stock were issued to City Hill, LLC and Lim family trust, respectively, in exchange for cash held by CHI of $5.2 million and the extinguishment and cancellation of the 6,100,000 shares of our Series A convertible preferred stock that were purchased for $10.2 million and held by CHI as a result of the merger.

## Directed share program

At our request, the underwriters have reserved up to 5% of the shares offered by this prospectus for sale at the initial public offering price to certain individuals through a directed share program, including our directors, officers, employees, business associates and related persons. See the section titled "Underwriting" for additional information.

## Stockholders agreement

We entered into an amended and restated stockholders agreement in April 2020, or the stockholders agreement, with the holders of our convertible preferred stock, including entities with which certain of our directors are affiliated. This agreement provides for certain rights relating to the registration of their shares of common stock issuable upon conversion of their convertible preferred stock and certain additional covenants made by us. Except for the registration rights (including the related provisions pursuant to which we have agreed to indemnify the parties to the stockholders agreement), all rights under this agreement will terminate upon closing of this offering. The registration rights will continue following this offering and will terminate five years after the closing of this offering. See "Description of capital stock—Registration rights" for more information regarding these registration rights.

## Equity grants to executive officers and directors

We have granted restricted stock and stock options to certain of our executive officers and non-employee directors, as more fully described in the section titled "Executive and director compensation."

## Employment arrangements

We have entered into employment letter agreements with our executive officers. For more information regarding these letter agreements, see the section titled "Executive and director compensation—Employment letter agreements and service agreements with our NEOs."

## Director and officer indemnification

We have entered into indemnification agreements with each of our directors and executive officers. These agreements, among other things, require us or will require us to indemnify each director (and in certain cases

their related venture capital funds) and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys' fees, judgments, fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person's services as a director or executive officer.

Our amended and restated certificate of incorporation and our amended and restated bylaws provide that we will indemnify each of our directors and officers to the fullest extent permitted by the Delaware General Corporation Law. Further, we have purchased a policy of directors' and officers' liability insurance that insures our directors and officers against the cost of defense, settlement or payment of a judgment under certain circumstances. For further information, see "Executive and director compensation—Limitations of liability and indemnification matters."

## Policies and procedures for related person transactions

Our board of directors will adopt a written related person transaction policy, to be effective upon the closing of this offering, setting forth the policies and procedures for the review and approval or ratification of related-person transactions. This policy will cover, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships in which we were or are to be a participant, where the amount involved exceeds the lesser of $120,000 or one percent of the average of our total assets at year-end for the last two completed fiscal years, and a related person had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person. In reviewing and approving any such transactions, our audit committee is tasked to consider all relevant facts and circumstances, including, but not limited to, whether the transaction is on terms comparable to those that could be obtained in an arm's length transaction and the extent of the related person's interest in the transaction. All of the transactions described in this section occurred prior to the adoption of this policy.

# Principal stockholders

The following table sets forth information with respect to the beneficial ownership of our common stock as of May 31, 2021, and as adjusted to reflect the sale of shares of common stock in this offering, by:

- our named executive officers;
- each of our directors;
- all of our executive officers and directors as a group; and
- each person or group of affiliated persons known by us to beneficially own more than 5% of our common stock.

The number of shares beneficially owned by each stockholder is determined under rules issued by the SEC. Under these rules, beneficial ownership includes any shares as to which a person has sole or shared voting power or investment power. Applicable percentage ownership is based on 118,163,889 shares of common stock outstanding on May 31, 2021, which gives effect to the automatic conversion of all outstanding shares of our convertible preferred stock into 85,516,454 shares of our common stock immediately prior to the closing of this offering and includes 3,645,320 shares subject to forfeiture or a right of repurchase. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock subject to options or other rights held by such person that are currently exercisable or will become exercisable within 60 days of May 31, 2021 are considered outstanding, although these shares are not considered outstanding for purposes of computing the percentage ownership of any other person. The table below excludes any purchases that may be made through our directed share program and any potential purchases in this offering by the beneficial owners identified in the table below.

Unless otherwise indicated, the address of each beneficial owner listed below is c/o Erasca, Inc., 10835 Road to the Cure, Suite 140, San Diego, CA 92121. We believe, based on information provided to us, that each of the stockholders listed below has sole voting and investment power with respect to the shares beneficially owned by the stockholder unless noted otherwise, subject to community property laws where applicable.

| Name of beneficial owner | Number of shares beneficially owned | Percentage of shares beneficially owned | |
|---|---|---|---|
| | | Before offering | After offering |
| **5% or Greater Stockholders** | | | |
| City Hill, LLC[1] | 14,279,233 | 12.1% | |
| Entities affiliated with ARCH Venture Partners[2] | 13,266,666 | 11.2% | |
| Entities affiliated with Colt Ventures, Ltd.[3] | 7,785,650 | 6.6% | |
| Entities affiliated with Cormorant Asset Management[4] | 11,466,666 | 9.7% | |
| **Named Executive Officers and Directors** | | | |
| Jonathan E. Lim, M.D.[5] | 38,466,701 | 32.6% | |
| David M. Chacko, M.D.[6] | 534,776 | * | |
| Gary Yeung[7] | 468,604 | * | |
| James A. Bristol, Ph.D.[8] | 225,000 | * | |
| Alexander W. Casdin[9] | 1,305,000 | 1.1% | |
| Bihua Chen[10] | 11,666,666 | 9.9% | |
| Julie Hambleton, M.D.[11] | 200,000 | * | |
| Valerie Harding-Start, Ph.D.[12] | 225,000 | * | |
| Pratik S. Multani, M.D.[13] | 225,000 | * | |
| Michael D. Varney, Ph.D.[14] | 200,000 | * | |
| All executive officers and directors as a group (11 persons)[15] | 53,423,143 | 44.8% | |

* Less than 1%.

(1) Dr. Lim, our Chairman and CEO, is the Managing Partner of City Hill, LLC. Dr. Lim has sole voting and investment control over the shares held by City Hill. Dr. Lim disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein. The address of City Hill, LLC is 4653 Carmel Mountain Road, Suite 308-501, San Diego, CA 92121.

(2) Consists of 6,633,333 shares held by ARCH Venture Fund X, L.P. (ARCH X), and 6,633,333 shares held by ARCH Venture Fund X Overage, L.P. (ARCH X Overage). ARCH Venture Partners X, L.P. (AVP X LP) is the sole general partner of ARCH X. ARCH Venture Partners X Overage, L.P. (AVP X Overage LP) is the sole general partner of ARCH X Overage. ARCH Venture Partners X, LLC (AVP X LLC) is the sole general partner of each of AVP X LP and AVP X Overage LP. Keith Crandell, Kristina Burow, Steven Gillis, and Robert Nelsen comprise the investment committee of AVP X LLC (the AVP X Committee Members). AVP X LP and AVP X Overage LP may be deemed to beneficially own the shares held by ARCH X and ARCH X Overage, respectively, AVP X LLC may be deemed to beneficially own the shares held by ARCH X and ARCH X Overage, and each of the AVP X Committee Members may be deemed to share the power to direct the disposition and vote of the shares held by ARCH X and ARCH X Overage. AVP X LP, AVP X Overage LP, AVP X LLC, and the AVP X Committee Members each disclaim beneficial ownership except to any pecuniary interest therein. The address of the ARCH Venture Funds is 8755 W. Higgins Road, Suite 1025, Chicago, IL 60631.

(3) Consists of 3,458,000 shares held by Colt Erasca Partners, 1,203,206 shares held by Colt Second Erasca Partners, LLC, and 3,214,444 shares held by Colt Third Erasca Partners, LLC (collectively, the Colt Partners). Colt Ventures, Ltd. is the general partner of each of the Colt Partners. Darren Blanton serves as the managing partner of Colt Ventures, Ltd., and has sole voting and investment control over the shares held by the Colt Partners. Mr. Blanton disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein. The address of the Colt Partners, Colt Ventures, Ltd. and Mr. Blanton is 2101 Cedar Springs Suite 1230 Dallas, TX 75201.

(4) Consists of 9,259,733 shares held by Cormorant Private Healthcare Fund II, LP. (Cormorant II), 2,074,453 shares held by Cormorant Global Healthcare Master Fund, LP (Cormorant Master Fund) and 132,480 shares held by CRMA SPV, LP. (CRMA, and, together with Cormorant Fund II and Cormorant Master Fund, the Cormorant Funds). Cormorant Global Healthcare GP, LLC (Global GP) is the general partner of Cormorant Master Fund and Cormorant Private Healthcare II GP, LLC (Private GP) is the general partner of Cormorant Fund II. Bihua Chen serves as the managing member of both Global GP and Private GP. Cormorant Asset Management LP serves as the investment manager to Cormorant Fund II, Cormorant Master Fund and CRMA, and Ms. Chen serves as the managing member of Cormorant Asset Management GP, LLC. Ms. Chen has sole voting and investment control over the shares held by the Cormorant Funds. Ms. Chen disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein. The address of the Cormorant Funds, Global GP, Private GP, Cormorant Asset Management LP, and Ms. Chen is 200 Clarendon Street, 52nd Floor, Boston, MA 02116.

(5) Consists of 14,279,233 shares held by City Hill, LLC and 24,187,468 shares of common stock held by a family trust of Dr. Lim, for which he is a co-trustee, including 1,928,647 shares subject to repurchase by us within 60 days after May 31, 2021.

(6) Includes 283,125 shares of common stock held by Dr. Chacko, including 63,334 shares subject to repurchase by us within 60 days after May 31, 2021, and 251,651 shares of common stock underlying options held by Dr. Chacko that are exercisable as of May 31, 2021 or that will become exercisable within 60 days after such date.

(7) Includes 468,604 shares of common stock held by Mr. Yeung.

(8) Includes 225,000 shares of common stock held by Dr. Bristol, including 96,875 shares subject to repurchase by us within 60 days after May 31, 2021.

(9) Includes 405,000 shares of common stock held by Mr. Casdin, including 96,875 shares of common stock subject to repurchase by us within 60 days after May 31, 2021, and 900,000 shares of common stock held by Reneo Capital SPV IV LP (Reneo SPV). Reneo GP LLC (Reneo GP) is the general partner of Reneo SPV. Mr. Casdin is the managing member of Reneo GP. Mr. Casdin has sole voting and investment control over the shares held by Reneo SPV. Mr. Casdin disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein.

(10) Consists of 11,466,666 shares held by entities affiliated with Cormorant Asset Management and 200,000 shares of common stock underlying options held by Dr. Chen exercisable as of May 31, 2021 or that will become exercisable within 60 days after such date.

(11) Includes 200,000 shares of common stock underlying options held by Dr. Hambleton that are exercisable as of May 31, 2021 or that will become exercisable within 60 days after such date.

(12) Includes 225,000 shares of common stock underlying options held by Dr. Harding-Start that are exercisable as of May 31, 2021 or that will become exercisable within 60 days after such date.

(13) Includes 200,000 shares of common stock held by Dr. Multani, including 71,875 shares subject to repurchase by us within 60 days after May 31, 2021, and 25,000 shares of common stock underlying options held by Dr. Multani that are exercisable as of May 31, 2021 or that will become exercisable within 60 days after such date.

(14) Includes 200,000 shares of common stock underlying options held by Dr. Varney that are exercisable as of May 31, 2021 or that will become exercisable within 60 days after such date.

(15) Consists of shares of common stock and shares of common stock issuable upon exercise of outstanding options which are exercisable as of May 31, 2021 or that will become exercisable within 60 days after such date, as set forth in previous footnotes. Also includes 375,000 shares of common stock held by Dr. Lin, our Chief Medical Officer, including 375,000 shares subject to repurchase by us.

# Description of capital stock

## General

The following description summarizes some of the terms of our amended and restated certificate of incorporation and amended and restated bylaws, the stockholders agreement and of the Delaware General Corporation Law. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description you should refer to our amended and restated certificate of incorporation, amended and restated bylaws and stockholders agreement, copies of which have been filed as exhibits to the registration statement of which this prospectus is a part.

Following the closing of this offering, our authorized capital stock will consist of shares of common stock, $0.0001 par value per share, and shares of preferred stock, $0.0001 par value per share.

## Common stock

As of March 31, 2021, there were 116,871,619 shares of our common stock outstanding and held of record by 112 stockholders, including 3,905,103 shares of restricted common stock which are subject to forfeiture or our right of repurchase, after giving effect to the automatic conversion of all outstanding shares of our convertible preferred stock into 85,516,454 shares of common stock, which will automatically occur immediately prior to the closing of this offering. Based on the number of shares of common stock outstanding as of March 31, 2021, and further assuming the issuance by us of shares of common stock in this offering, there will be shares of common stock outstanding upon the closing of this offering. Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders, including the election of directors, and do not have cumulative voting rights. Accordingly, the holders of a majority of the outstanding shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they so choose, other than any directors that holders of any preferred stock we may issue may be entitled to elect. Subject to the supermajority votes for some matters, other matters shall be decided by the affirmative vote of our stockholders having a majority in voting power of the votes cast by the stockholders present or represented and voting on such matter. Our amended and restated certificate of incorporation and amended and restated bylaws also provide that our directors may be removed only for cause and only by the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock entitled to vote thereon. In addition, the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock entitled to vote thereon is required to amend or repeal, or to adopt any provision inconsistent with, several of the provisions of our amended and restated certificate of incorporation. See below in “—Anti-takeover effects of Delaware law and our certificate of incorporation and bylaws—Amendment of charter provisions.”

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of common stock are entitled to receive ratably those dividends, if any, as may be declared by the board of directors out of legally available funds. In the event of our liquidation, dissolution or winding up, the holders of common stock will be entitled to share ratably in the assets legally available for distribution to stockholders after the payment of or provision for all of our debts and other liabilities, subject to the prior rights of any preferred stock then outstanding. Holders of common stock have no preemptive or conversion rights or other subscription rights and there are no redemption or sinking funds provisions applicable to the common stock. All outstanding shares of common stock are, and the common stock to be outstanding upon the closing of this offering will be, duly authorized, validly issued, fully paid and nonassessable. The rights, preferences and privileges of holders of common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

## Preferred stock

Upon the closing of this offering, all of our previously outstanding shares of convertible preferred stock will have been converted into common stock, there will be no authorized shares of our previously outstanding convertible preferred stock, and we will have no shares of preferred stock outstanding. Under the terms of our amended and restated certificate of incorporation, which will become effective immediately prior to the closing of this offering, our board of directors has the authority, without further action by our stockholders, to issue up to shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the dividend, voting and other rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deterring or preventing a change in our control and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. We have no current plans to issue any shares of preferred stock.

## Options

As of March 31, 2021, options to purchase 12,036,860 shares of our common stock were outstanding, of which 1,537,901 were vested and exercisable as of that date. For additional information regarding the terms of our 2018 Plan, see “Executive and director compensation—Incentive award plans—2018 equity incentive plan.”

## Registration rights

As of March 31, 2021, upon the closing of this offering holders of shares of our common stock, which includes all of the shares of common stock issuable upon the automatic conversion convertible preferred stock immediately prior to the closing of this offering, will be entitled to the following rights with respect to the registration of such shares for public resale under the Securities Act, pursuant to a stockholders agreement by and among us and certain investors. The registration of shares of common stock as a result of the following rights being exercised would enable holders to trade these shares without restriction under the Securities Act when the applicable registration statement is declared effective.

***Demand registration rights***

*Form S-1.* If at any time beginning six months following the effective date of the registration statement of which this prospectus forms a part, the holders of a majority of the registrable securities request in writing that we effect a registration with respect to all or a part of the registrable securities then outstanding where the aggregate price to the public of the offering is $20.0 million or more, we may be required to provide notice to all holders of registrable securities and to use commercially reasonable efforts to effect such registration; provided, however, that we will not be required to effect such a registration if, among other things, within the preceding 12 months, we have already effected two registrations for the holders of registrable securities in response to these demand registration rights.

*Form S-3.* If at any time we become entitled under the Securities Act to register our shares on Form S-3, the holders of the registrable securities request in writing that we effect a registration with respect to all or a part of the registrable securities then outstanding where the price to the public of the offering is $5.0 million or

more, we may be required to provide notice to all holders of registrable securities and to use commercially reasonable efforts to effect such registration; provided, however, that we will not be required to effect such a registration if, among other things, within the preceding 12 months, we have already effected two registrations on Form S-3 for the holders of registrable securities.

If the holders requesting registration intend to distribute their shares by means of an underwriting, the underwriter of such offering will have the right to limit the numbers of shares to be underwritten for reasons related to the marketing of the shares.

***Piggyback registration rights***

If at any time following the closing of this offering we propose to register any shares of our common stock under the Securities Act, subject to certain exceptions, the holders of registrable securities will be entitled to notice of the registration and to include their shares of registrable securities in the registration. If our proposed registration involves an underwriting, the managing underwriter of such offering will have the right to limit the number of shares to be underwritten for reasons related to the marketing of the shares.

***Indemnification***

Our stockholders agreement contains customary cross indemnification provisions, under which we are obligated to indemnify holders of registrable securities in the event of material misstatements or omissions in a registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions attributable to them.

***Expenses***

Ordinarily, other than underwriting discounts and commissions, we will be required to pay all expenses incurred by us related to any registration effected pursuant to the exercise of these registration rights. These expenses may include all registration and filing fees, printing expenses, fees and disbursements of our counsel, reasonable fees and disbursements of a counsel for the selling securityholders, blue sky fees and expenses and the expenses of any special audits incident to the registration.

***Termination of registration rights***

The registration rights terminate five years after the closing of this offering.

## Anti-takeover effects of Delaware law and our certificate of incorporation and bylaws

Some provisions of Delaware law, our amended and restated certificate of incorporation and our amended and restated bylaws contain provisions that could make the following transactions more difficult: an acquisition of us by means of a tender offer; an acquisition of us by means of a proxy contest or otherwise; or the removal of our incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in our best interests, including transactions which provide for payment of a premium over the market price for our shares.

These provisions, summarized below, are intended to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of the increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

***Undesignated preferred stock***

The ability of our board of directors, without action by the stockholders, to issue up to shares of undesignated preferred stock with voting or other rights or preferences as designated by our board of directors could impede the success of any attempt to change control of us. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of our company.

***Stockholder meetings***

Our amended and restated bylaws provide that a special meeting of stockholders may be called only by our chairman of the board of directors, chief executive officer or president, or by a resolution adopted by a majority of our board of directors.

***Requirements for advance notification of stockholder nominations and proposals***

Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals to be brought before a stockholder meeting and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors.

***Elimination of stockholder action by written consent***

Our amended and restated certificate of incorporation and amended and restated bylaws eliminate the right of stockholders to act by written consent without a meeting.

***Staggered board of directors***

Our amended and restated bylaws provides that our board of directors will be divided into three classes. The directors in each class will serve for a three-year term, with one class being elected each year by our stockholders. For more information on the classified board of directors, see “Management—Board composition and election of directors.” This system of electing directors may tend to discourage a third party from attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.

***Removal of directors***

Our amended and restated certificate of incorporation provides that no member of our board of directors may be removed from office except for cause and, in addition to any other vote required by law, upon the approval of not less than two-thirds of the total voting power of all of our outstanding voting stock then entitled to vote in the election of directors.

***Stockholders not entitled to cumulative voting***

Our amended and restated certificate of incorporation does not permit stockholders to cumulate their votes in the election of directors. Accordingly, the holders of a majority of the outstanding shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they choose, other than any directors that holders of our preferred stock may be entitled to elect.

***Delaware anti-takeover statute***

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits persons deemed to be “interested stockholders” from engaging in a “business combination” with a publicly held Delaware corporation for three years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. Generally, an “interested stockholder” is a person

who, together with affiliates and associates, owns, or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's voting stock. Generally, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the board of directors.

***Choice of forum***

Our amended and restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative form, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: (i) any derivative action or proceeding brought on our behalf; (ii) any action asserting a claim of breach of a fiduciary duty or other wrongdoing by any of our directors, officers, employees or agents to us or our stockholders, creditors or other constituents; (iii) any action asserting a claim against us arising pursuant to any provision of the General Corporation Law of the State of Delaware or our amended and restated certificate of incorporation or amended and restated bylaws; (iv) any action to interpret, apply, enforce or determine the validity of our certificate of incorporation or bylaws; or (v) any action asserting a claim governed by the internal affairs doctrine. The provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, our amended and restated certificate of incorporation will also provide that unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause or causes of action arising under the Securities Act, including all causes of action asserted against any defendant to such complaint. For the avoidance of doubt, this provision is intended to benefit and may be enforced by us, our officers and directors, the underwriters to any offering giving rise to such complaint, and any other professional entity whose profession gives authority to a statement made by that person or entity and who has prepared or certified any part of the documents underlying the offering. In any case, stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. Our amended and restated certificate of incorporation also provides that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of and to have consented to this choice of forum provision.

***Amendment of charter provisions***

The amendment of any of the above provisions, except for the provision making it possible for our board of directors to issue preferred stock, would require approval by holders of at least two thirds of the total voting power of all of our outstanding voting stock.

The provisions of Delaware law, our amended and restated certificate of incorporation and our amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in the composition of our board of directors and management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

## Transfer agent and registrar

The transfer agent and registrar for our common stock will be the Computershare Trust Company, N.A. The transfer agent and registrar's address is 250 Royall Street, Canton, MA 02021.

## The Nasdaq Global Select Market listing

We have applied to have our common stock listed on the Nasdaq Global Select Market under the symbol “ERAS.”

## Limitations of liability and indemnification matters

For a discussion of liability and indemnification, see “Executive and director compensation—Limitations of liability and indemnification matters.”

# Shares eligible for future sale

Immediately prior to this offering, there was no public market for our common stock. Future sales of substantial amounts of common stock in the public market, or the perception that such sales may occur, could adversely affect the market price of our common stock. Although we intend to apply to have our common stock listed on Nasdaq, we cannot assure you that there will be an active public market for our common stock.

Based on the number of shares of our common stock outstanding as of March 31, 2021, and assuming (i) the issuance of shares in this offering, (ii) the automatic conversion of all of our outstanding shares of convertible preferred stock into 85,516,454 shares of common stock and the related reclassification of the carrying value of the convertible preferred stock to permanent equity upon the closing of this offering, (iii) no exercise of the underwriters' option to purchase additional shares of common stock and (iv) no exercise of outstanding options, we will have outstanding an aggregate of shares of common stock.

Of these shares, all shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act, except for any shares purchased by our "affiliates," as that term is defined in Rule 144 under the Securities Act. Shares purchased by our affiliates would be subject to the Rule 144 resale restrictions described below, other than the holding period requirement.

The remaining shares of common stock will be "restricted securities," as that term is defined in Rule 144 under the Securities Act. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rule 144 or 701 under the Securities Act, each of which is summarized below. We expect that substantially all of these shares will be subject to the 180-day lock-up period under the lock-up agreements described below.

## Lock-up agreements

We, our officers, directors and holders of substantially all of our security holders, have agreed with the underwriters that for a period of 180 days, after the date of this prospectus, among other things and subject to specified exceptions, we or they will not offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to sell, or otherwise dispose of or transfer any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock, request or demand that we file a registration statement related to our common stock or enter into any hedging, swap or other agreement that transfers to another, in whole or in part, directly or indirectly, the economic consequence of ownership of the common stock. Upon expiration of the lock-up period, certain of our stockholders will have the right to require us to register their shares under the Securities Act. See "—Registration rights" below and "Description of capital stock—Registration rights."

J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC and BofA Securities, Inc. may, in their sole discretion and at any time or from time to time before the termination of the lock-up period, in certain cases without public notice, release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the underwriters and any of our stockholders who will execute a lock-up agreement providing consent to the sale of shares prior to the expiration of the lock-up period.

Upon the expiration of the lock-up period, substantially all of the shares subject to such lock-up restrictions will become eligible for sale, subject to the limitations discussed above.

## Rule 10b5-1 trading plans

Following the closing of this offering, certain of our officers, directors and significant stockholders may adopt written plans, known as Rule 10b5-1 trading plans, in which they will contract with a broker to buy or sell shares

of our common stock on a periodic basis to diversify their assets and investments. Under these 10b5-1 trading plans, a broker may execute trades pursuant to parameters established by the officer, director or stockholder when entering into the plan, without further direction from such officer, director or stockholder. Such sales would not commence until the expiration of the applicable lock-up agreements entered into by such officer, director or stockholder in connection with this offering.

## Rule 144

***Affiliate resales of restricted securities***

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is an affiliate of ours, or who was an affiliate at any time during the 90 days before a sale, who has beneficially owned shares of our common stock for at least six months would be entitled to sell in "broker's transactions" or certain "riskless principal transactions" or to market makers, a number of shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering; or
- the average weekly trading volume in our common stock on Nasdaq during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Affiliate resales under Rule 144 are also subject to the availability of current public information about us. In addition, if the number of shares being sold under Rule 144 by an affiliate during any three-month period exceeds 5,000 shares or has an aggregate sale price in excess of $50,000, the seller must file a notice on Form 144 with the SEC and Nasdaq concurrently with either the placing of a sale order with the broker or the execution of a sale directly with a market maker.

***Non-affiliate resales of restricted securities***

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is not an affiliate of ours at the time of sale, and has not been an affiliate at any time during the three months preceding a sale, and who has beneficially owned shares of our common stock for at least six months but less than a year, is entitled to sell such shares subject only to the availability of current public information about us. If such person has held our shares for at least one year, such person can resell under Rule 144(b)(1) without regard to any Rule 144 restrictions, including the 90-day public company requirement and the current public information requirement.

Non-affiliate resales are not subject to the manner of sale, volume limitation or notice filing provisions of Rule 144.

## Rule 701

In general, under Rule 701, any of an issuer's employees, directors, officers, consultants or advisors who purchases shares from the issuer in connection with a compensatory stock or option plan or other written agreement before the effective date of a registration statement under the Securities Act is entitled to sell such shares 90 days after such effective date in reliance on Rule 144. An affiliate of the issuer can resell shares in reliance on Rule 144 without having to comply with the holding period requirement, and non-affiliates of the issuer can resell shares in reliance on Rule 144 without having to comply with the current public information and holding period requirements.

## Equity plans

We intend to file one or more registration statements on Form S-8 under the Securities Act to register all shares of common stock subject to outstanding stock options and common stock issued or issuable under our equity incentive plans and employee stock purchase plan. We expect to file the registration statement covering shares offered pursuant to these stock plans shortly after the date of this prospectus, permitting the resale of such shares by non-affiliates in the public market without restriction under the Securities Act and the sale by affiliates in the public market subject to compliance with the resale provisions of Rule 144.

## Registration rights

Upon the closing of this offering holders of shares of our common stock, which includes all of the shares of common stock issuable upon the automatic conversion of our convertible preferred stock into 85,516,454 shares of our common stock immediately prior to the closing of this offering, will be entitled to various rights with respect to the registration of these shares under the Securities Act upon the closing of this offering. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares purchase by our affiliates. See “Description of capital stock—Registration rights” for additional information. Shares covered by a registration statement will be eligible for sale in the public market upon the expiration or release from the terms of the lock-up agreement.

# Material United States federal income tax consequences to non-US holders

The following discussion is a summary of the material US federal income tax consequences to Non-US Holders (as defined below) of the purchase, ownership and disposition of our common stock issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax effects. The effects of other US federal tax laws, such as estate and gift tax laws, and any applicable state, local or non-US tax laws are not discussed. This discussion is based on the US Internal Revenue Code of 1986, as amended (the Code), Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the US Internal Revenue Service (the IRS), in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Non-US Holder of our common stock. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position to that discussed below regarding the tax consequences of the purchase, ownership and disposition of our common stock.

This discussion is limited to Non-US Holders that hold our common stock as a “capital asset” within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all US federal income tax consequences relevant to a Non-US Holder’s particular circumstances, including the impact of the alternative minimum tax, the Medicare contribution tax on net investment income, or the special tax accounting rules under Section 451(b) of the Code. In addition, it does not address consequences relevant to Non-US Holders subject to special rules, including, without limitation:

- US expatriates and former citizens or long-term residents of the United States;
- persons holding our common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- brokers, dealers or traders in securities;
- “controlled foreign corporations,” “passive foreign investment companies,” and corporations that accumulate earnings to avoid US federal income tax;
- partnerships or other entities or arrangements treated as partnerships for US federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
- tax-qualified retirement plans; and
- “qualified foreign pension funds” as defined in Section 897(l)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds.

If an entity or arrangement treated as a partnership for US federal income tax purposes holds our common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding our

common stock and the partners in such partnerships should consult their tax advisors regarding the US federal income tax consequences to them of the purchase, ownership, and disposition of our common stock.

**THIS DISCUSSION IS FOR INFORMATION PURPOSES ONLY AND IS NOT TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE US FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK ARISING UNDER THE US FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-US TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.**

## Definition of a non-US holder

For purposes of this discussion, a “Non-US Holder” is any beneficial owner of our common stock that is neither a “US person” nor an entity or arrangement treated as a partnership for US federal income tax purposes. A US person is any person that, for US federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to US federal income tax regardless of its source; or
- a trust that (i) is subject to the primary supervision of a US court and the control of one or more “United States persons” (within the meaning of Section 7701(a)(30) of the Code), or (ii) has a valid election in effect to be treated as a United States person for US federal income tax purposes.

## Distributions

As described in the section titled “Dividend policy,” we do not anticipate declaring or paying dividends to holders of our common stock in the foreseeable future. However, if we do make distributions of cash or property on our common stock, such distributions will constitute dividends for US federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under US federal income tax principles. Amounts not treated as dividends for US federal income tax purposes will constitute a return of capital and will first be applied against and reduce a Non-US Holder’s adjusted tax basis in its common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below in “—Sale or other taxable disposition.”

Subject to the discussion below on effectively connected income, backup withholding and Sections 1471 through 1474 of the Code (such Sections are commonly referred to as the Foreign Account Tax Compliance Act, or FATCA), dividends paid to a Non-US Holder of our common stock will be subject to US federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty, provided the Non-US Holder furnishes a valid IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) certifying qualification for the lower treaty rate). If a Non-US Holder holds the stock through a financial institution or other agent acting on the Non-US Holder’s behalf, the Non-US Holder will be required to provide appropriate documentation to the agent, who then will be required to provide certification to the applicable withholding agent, either directly or through other intermediaries. A Non-US Holder that does not timely furnish the required documentation, but that qualifies for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-US Holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

If dividends paid to a Non-US Holder are effectively connected with the Non-US Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-US Holder maintains a permanent establishment in the United States to which such dividends are attributable), the Non-US Holder will be exempt from the US federal withholding tax described above. To claim the exemption, the Non-US Holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI, certifying that the dividends are effectively connected with the Non-US Holder's conduct of a trade or business within the United States.

Any such effectively connected dividends will be subject to US federal income tax on a net income basis at the regular rates applicable to United States persons. A Non-US Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected dividends, as adjusted for certain items. Non-US Holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.

## Sale or other taxable disposition

Subject to the discussions below regarding backup withholding and FATCA, a Non-US Holder will not be subject to US federal income tax on any gain realized upon the sale or other taxable disposition of our common stock unless:

- the gain is effectively connected with the Non-US Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-US Holder maintains a permanent establishment in the United States to which such gain is attributable);
- the Non-US Holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- our common stock constitutes a US real property interest, or USRPI, by reason of our status as a US real property holding corporation, or USRPHC, for US federal income tax purposes.

Gain described in the first bullet point above generally will be subject to US federal income tax on a net income basis at the regular rates applicable to United States persons. A Non-US Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

Gain described in the second bullet point above will be subject to US federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty), which may be offset by US source capital losses of the Non-US Holder (even though the Non-US Holder is not considered a resident of the United States), provided the Non-US Holder has timely filed US federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we currently are not, and do not anticipate becoming, a USRPHC. Because the determination of whether we are a USRPHC depends, however, on the fair market value of our USRPIs relative to the fair market value of our non-US real property interests and our other business assets, there can be no assurance we currently are not a USRPHC or will not become one in the future. Even if we are or were to become a USRPHC, gain arising from the sale or other taxable disposition by a Non-US Holder of our common stock will not be subject to US federal income tax if our common stock is "regularly traded," as defined by applicable Treasury Regulations, on an established securities market, and such Non-US Holder owned, actually or constructively, 5% or less of our common stock throughout the shorter of the five-year period ending on the date of the sale or other taxable disposition or the Non-US Holder's holding period.

Non-US Holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

## Information reporting and backup withholding

Payments of dividends on our common stock will not be subject to backup withholding, provided the applicable withholding agent does not have actual knowledge or reason to know the holder is a United States person and the holder either certifies its non-US status, such as by furnishing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI, or otherwise establishes an exemption. However, information returns are required to be filed with the IRS in connection with any distributions on our common stock paid to the Non-US Holder, regardless of whether such distributions constitute dividends or whether any tax was actually withheld. In addition, proceeds of the sale or other taxable disposition of our common stock within the United States or conducted through certain US-related brokers generally will not be subject to backup withholding or information reporting, if the applicable withholding agent receives the certification described above and does not have actual knowledge or reason to know that such holder is a United States person, or the holder otherwise establishes an exemption. Proceeds of a disposition of our common stock conducted through a non-US office of a non-US broker generally will not be subject to backup withholding or information reporting.

Copies of information returns that are filed with the IRS may also be made available under the provisions of an applicable treaty or agreement to the tax authorities of the country in which the Non-US Holder resides or is established.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a Non-US Holder's US federal income tax liability, if any, provided the required information is timely furnished to the IRS.

## Additional withholding tax on payments made to foreign accounts

Withholding taxes may be imposed under FATCA on certain types of payments made to non-US financial institutions and certain other non-US entities. Specifically, a 30% withholding tax may be imposed on dividends on, or subject to the proposed Treasury Regulations discussed below, gross proceeds from the sale or other disposition of, our common stock paid to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (i) the foreign financial institution undertakes certain diligence and reporting obligations, (ii) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (iii) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in clause (i) above, it must enter into an agreement with the US Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

Under the applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends on our common stock. While withholding under FATCA would also have applied to payments of gross proceeds from the sale or other disposition of stock on or after January 1, 2019, proposed Treasury Regulations eliminate FATCA withholding on payments of gross proceeds entirely. Taxpayers generally may rely on these proposed Treasury Regulations until final Treasury Regulations are issued.

Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in our common stock.

# Underwriting

We are offering the shares of common stock described in this prospectus through a number of underwriters. J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC and BofA Securities, Inc. are acting as representatives of the underwriters. We have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, the number of shares of common stock listed next to its name in the following table:

| Name | Number of shares |
|---|---|
| J.P. Morgan Securities LLC | |
| Morgan Stanley & Co. LLC | |
| BofA Securities, Inc. | |
| Evercore Group L.L.C. | |
| Guggenheim Securities, LLC | |
| Total | |

The underwriters are committed to purchase all the shares of common stock offered by us if they purchase any shares. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The underwriters propose to offer the common stock directly to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of $ per share. After the initial offering of the shares to the public, if all of the shares of common stock are not sold at the initial public offering price, the underwriters may change the offering price and the other selling terms. Sales of any shares made outside of the United States may be made by affiliates of the underwriters.

The underwriters have an option to buy up to additional shares of common stock from us to cover sales of shares by the underwriters which exceed the number of shares specified in the table above. The underwriters have 30 days from the date of this prospectus to exercise this option to purchase additional shares. If any shares are purchased with this option to purchase additional shares, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

The underwriting fee is equal to the public offering price per share of common stock less the amount paid by the underwriters to us per share of common stock. The underwriting fee is $ per share. The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

| | Without exercise of option to purchase additional shares | With exercise of full option to purchase additional shares |
|---|---|---|
| Per share | $ | $ |
| Total | $ | $ |

We estimate that the total expenses of this offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately $ . We have agreed to reimburse the underwriters for expenses relating to the clearance of this offering with the Financial Industry Regulatory Authority, Inc. in an amount up to $ .

A prospectus in electronic format may be made available on the web sites maintained by one or more underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters and selling group members that may make Internet distributions on the same basis as other allocations.

We have agreed that we will not, subject to certain exceptions, (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, hedge, lend, or otherwise transfer or dispose of, directly or indirectly, or submit to, or file with, the SEC a registration statement under the Securities Act relating to, any shares of our common stock or any securities convertible into or exercisable or exchangeable for any shares of our common stock, or publicly disclose the intention to undertake any of the foregoing, or (ii) enter into any swap, hedging, or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of any shares of common stock or any such other securities, (regardless of whether any of these transactions are to be settled by the delivery of shares of common stock or such other securities, in cash or otherwise), in each case without the prior written consent of J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC and BofA Securities, Inc. for a period of 180 days after the date of this prospectus, other than the shares of our common stock to be sold in this offering.

The restrictions on our actions, as described above, do not apply to certain transactions, including (i) the issuance of shares of common stock or securities convertible into or exercisable for shares of our common stock pursuant to the conversion or exchange of convertible or exchangeable securities or the exercise of warrants or options (including net exercise) or the settlement of RSUs (including net settlement), in each case outstanding on the date of the underwriting agreement and described in this prospectus; (ii) grants of stock options, stock awards, restricted stock, RSUs, or other equity awards and the issuance of shares of common stock or securities convertible into or exercisable or exchangeable for shares of our common stock (whether upon the exercise of stock options or otherwise) to our employees, officers, directors, advisors, or consultants pursuant to the terms of an equity compensation plan in effect as of the closing date of this offering and described in this prospectus, provided that such recipients enter into a lock-up agreement with the underwriters; (iii) the issuance of up to 5% of the outstanding shares of common stock, or securities convertible into, exercisable for, or which are otherwise exchangeable for, common stock, immediately following the closing date of this offering, in acquisitions or other similar strategic transactions, provided that such recipients enter into a lock-up agreement with the underwriters; or (iv) the filing of any registration statement on Form S-8 relating to securities granted or to be granted pursuant to any plan in effect on the date of the underwriting agreement and described in this prospectus or any assumed benefit plan pursuant to an acquisition or similar strategic transaction.

Our directors and executive officers, and substantially all of our securityholders (such persons, the lock-up parties) have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each lock-up party, with limited exceptions, for a period of 180 days after the date of this prospectus (such period, the restricted period), may not and may not cause any of their direct or indirect affiliates to, without the prior written consent of J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC and BofA Securities, Inc., (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or

exchangeable for our common stock (including without limitation, our common stock or such other securities which may be deemed to be beneficially owned by the lock-up party in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant) (collectively with the common stock, the lock-up securities), (ii) enter into any hedging, swap or other agreement or transaction that transfers, in whole or in part, any of the economic consequences of ownership of the lock-up securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of the lock-up securities, in cash or otherwise, (iii) make any demand for or exercise any right with respect to the registration of any the lock up securities, or (iv) publicly disclose the intention to do any of the foregoing.

Such persons or entities have further acknowledged that these undertakings preclude them from engaging from engaging in any hedging or other transactions or arrangements (including, without limitation, any short sale or the purchase or sale of, or entry into, any put or call option, or combination thereof, forward, swap or any other derivative transaction or instrument, however described or defined) designed or intended, or which could reasonably be expected to lead to or result in, a sale or disposition or transfer (whether by the lock-up party or any other person) of any economic consequences of ownership, in whole or in part, directly or indirectly, of any lock-up securities, whether any such transaction or arrangement (or instrument provided for thereunder) would be settled by delivery of lock-up securities, in cash or otherwise. Such persons or entities further confirm that they have furnished the representatives with the details of any transaction such persons or entities, or any of their respective affiliates, is a party to as of the date hereof, which transaction would have been restricted by the lock-up agreements if it had been entered into by such persons or entities during the restricted period.

The restrictions described in the immediately preceding paragraph and contained in the lock-up agreements between the underwriters and the lock-up parties do not apply, subject in certain cases to various conditions, to certain transactions, including:

(i) transfers of lock-up securities:

(1) as bona fide gifts, or for bona fide estate planning purposes, provided that, such transfer shall not involve a disposition for value and each donee, devisee, transferee or distributee shall execute and deliver to the representatives a lock-up letter in the form of the lock-up agreements, provided further that, no filing by any party (donor, donee, devisee, transferor, transferee, distributer or distributee) under the Exchange Act, or other public announcement shall be required or shall be made voluntarily in connection with such transfer or distribution (other than a filing on a Form 5 made after the expiration of the restricted period);

(2) by will, other testamentary document or intestacy, provided that, such transfer shall not involve a disposition for value and each donee, devisee, transferee or distributee shall execute and deliver to the representatives a lock-up letter in the form of the lock-up agreements, provided further that, no filing by any party (donor, donee, devisee, transferor, transferee, distributer or distributee) under the Exchange Act, or other public announcement shall be required or shall be made voluntarily in connection with such transfer or distribution (other than a filing on a Form 5 made after the expiration of the restricted period);

(3) to any trust for the direct or indirect benefit of the lock-up party or the immediate family of the lock-up party, or if the lock-up party is a trust, to a trustor or beneficiary of the trust or to the estate of a beneficiary of such trust (for purposes of the lock-up agreement, “immediate family” shall mean any relationship by blood, current or former marriage, domestic partnership or adoption, not more remote than first cousin), provided that, such transfer shall not involve a disposition for value and each donee, devisee, transferee or distributee shall execute and deliver to the representatives a

lock-up letter in the form of the lock-up agreements, provided further that, no filing by any party (donor, donee, devisee, transferor, transferee, distributer or distributee) under the Exchange Act, or other public announcement shall be required or shall be made voluntarily in connection with such transfer or distribution (other than a filing on a Form 5 made after the expiration of the restricted period);

(4) to a partnership, limited liability company or other entity of which the lock-up party and the immediate family of the lock-up party are the legal and beneficial owner of all of the outstanding equity securities or similar interests, provided that, such transfer shall not involve a disposition for value and each donee, devisee, transferee or distributee shall execute and deliver to the representatives a lock-up letter in the form of the lock-up agreements, provided further that, no filing by any party (donor, donee, devisee, transferor, transferee, distributer or distributee) under the Exchange Act, or other public announcement shall be required or shall be made voluntarily in connection with such transfer or distribution (other than a filing on a Form 5 made after the expiration of the restricted period);

(5) to a nominee or custodian of a person or entity to whom a disposition or transfer would be permissible under clauses (1) through (4), provided that, such transfer shall not involve a disposition for value and each donee, devisee, transferee or distributee shall execute and deliver to the representatives a lock-up letter in the form of the lock-up agreements, provided further that, no filing by any party (donor, donee, devisee, transferor, transferee, distributer or distributee) under the Exchange Act, or other public announcement shall be required or shall be made voluntarily in connection with such transfer or distribution (other than a filing on a Form 5 made after the expiration of the restricted period);

(6) if the lock-up party is a corporation, partnership, limited liability company, trust or other business entity, (A) to another corporation, partnership, limited liability company, trust or other business entity that is an affiliate (as defined in Rule 405 promulgated under the Securities Act, as amended) of the lock-up party, or to any investment fund or other entity controlling, controlled by, managing or managed by or under common control with the lock-up party or affiliates of the lock-up party (including, for the avoidance of doubt, where the lock-up party is a partnership, to its general partner or a successor partnership or fund, or any other funds managed by such partnership), or (B) as part of a distribution, to members or shareholders of the lock-up party, provided that, such transfer shall not involve a disposition for value and each donee, devisee, transferee or distributee shall execute and deliver to the representatives a lock-up letter in the form of the lock-up agreements, provided further that, no filing by any party (donor, donee, devisee, transferor, transferee, distributer or distributee) under the Exchange Act, or other public announcement shall be required or shall be made voluntarily in connection with such transfer or distribution (other than a filing on a Form 5 made after the expiration of the restricted period);

(7) by operation of law, such as pursuant to a qualified domestic order, divorce settlement, divorce decree or separation agreement, provided that, such transfer shall not involve a disposition for value and each donee, devisee, transferee or distributee shall execute and deliver to the representatives a lock-up letter in the form of the lock-up agreements, provided further that no public filing, report or announcement shall be voluntarily made and if any filing under Section 16(a) of the Exchange Act, or other public filing, report or announcement reporting a reduction in beneficial ownership of shares of common stock in connection with such transfer or distribution shall be legally required during the restricted period, such filing, report or announcement shall clearly indicate in the footnotes thereto the nature and conditions of such transfer

(8) to us from an employee upon death, disability or termination of employment, in each case, of such employee, provided that no public filing, report or announcement shall be voluntarily made and if any filing under Section 16(a) of the Exchange Act, or other public filing, report or announcement reporting a reduction in beneficial ownership of shares of common stock in connection with such transfer or distribution shall be legally required during the restricted period, such filing, report or announcement shall clearly indicate in the footnotes thereto the nature and conditions of such transfer;

(9) as part of a sale of lock-up securities acquired in open market transactions after the closing date of this offering, provided that, no filing by any party (donor, donee, devisee, transferor, transferee, distributer or distributee) under the Exchange Act, or other public announcement shall be required or shall be made voluntarily in connection with such transfer or distribution (other than a filing on a Form 5 made after the expiration of the restricted period);

(10) to us in connection with the vesting, settlement, or exercise of restricted stock units, options, warrants or other rights to purchase shares of common stock (including, in each case, by way of "net" or "cashless" exercise), including for the payment of exercise price and tax and remittance payments due as a result of the vesting, settlement, or exercise of such restricted stock units, options, warrants or rights, provided that any such shares of common stock received upon such exercise, vesting or settlement shall be subject to the terms of the lock-up agreement, provided further that any such restricted stock units, options, warrants or rights are held by the lock-up party pursuant to an agreement or equity awards granted under a stock incentive plan or other equity award plan, each such agreement or plan which is described in this prospectus, provided further that, no filing by any party (donor, donee, devisee, transferor, transferee, distributer or distributee) under the Exchange Act, or other public announcement shall be required or shall be made voluntarily in connection with such transfer or distribution (other than a filing on a Form 5 made after the expiration of the restricted period), or

(11) pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction that is approved by our board of directors and made to all holders of our capital stock involving a change of control (as defined in the lock-up agreement) of us, provided that in the event that such tender offer, merger, consolidation or other similar transaction is not completed, the lock-up securities shall remain subject to the provisions of the lock-up agreement;

(ii) exercise outstanding options, settle restricted stock units or other equity awards or exercise warrants pursuant to plans described in this prospectus; provided that any lock-up securities received upon such exercise, vesting or settlement shall be subject to the terms of the lock-up agreement;

(iii) the conversion of outstanding preferred stock, warrants to acquire preferred stock or convertible securities into shares of common stock or warrants to acquire shares of common stock; provided that any such shares of common stock or warrants received upon such conversion shall be subject to the terms of the lock-up agreement; and

(iv) the establishment by lock-up parties of trading plans under Rule 1 0b5-1 under the Exchange Act for the transfer of the lock-up securities, provided that (1) such plan does not provide for the transfer of lock-up securities during the restricted period and (2) no filing by any party under the Exchange Act or other public announcement shall be required or made voluntarily in connection with such trading plan during the restricted period.

J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC and BofA Securities, Inc., in their sole discretion, may release the securities subject to any of the lock-up agreements with the underwriters described above, in whole or in part at any time.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act.

We have applied to list our shares of common stock on the Nasdaq Global Select Market under the symbol “ERAS.”

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of common stock in the open market for the purpose of preventing or retarding a decline in the market price of the common stock while this offering is in progress. These stabilizing transactions may include making short sales of common stock, which involves the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be “covered” shorts, which are short positions in an amount not greater than the underwriters’ option to purchase additional shares referred to above, or may be “naked” shorts, which are short positions in excess of that amount.

The underwriters may close out any covered short position either by exercising their option to purchase additional shares, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares through the option to purchase additional shares. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchase in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the common stock, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase common stock in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

These activities may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock, and, as a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on the Nasdaq, in the over-the-counter market or otherwise.

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be determined by negotiations between us and the representatives of the underwriters. In determining the initial public offering price, we and the representatives of the underwriters expect to consider a number of factors including:

- the information set forth in this prospectus and otherwise available to the representatives;
- our prospects and the history and prospects for the industry in which we compete;
- an assessment of our management;

- our prospects for future earnings;
- the general condition of the securities markets at the time of this offering;
- the recent market prices of, and demand for, publicly traded common stock of generally comparable companies; and
- other factors deemed relevant by the underwriters and us.

Neither we nor the underwriters can assure investors that an active trading market will develop for shares of our common stock, or that the shares will trade in the public market at or above the initial public offering price.

## Directed share program

At our request, the underwriters have reserved up to % of the shares offered by this prospectus for sale at the initial public offering price to certain individuals through a directed share program, including our directors, officers, employees, business associates and related persons. The sales will be made at our direction by J.P. Morgan Securities LLC and its affiliates through a directed share program. The number of shares of our common stock available for sale to the general public in this offering will be reduced to the extent that such persons purchase such reserved shares. Any reserved shares not so purchased will be offered by the underwriters to the general public on the same terms as the other shares of common stock offered by this prospectus. We have agreed to indemnify the underwriters against certain liabilities and expenses, including liabilities under the Securities Act, in connection with the sales of the shares reserved for the directed share program.

## Other relationships

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

## Selling restrictions

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

***Notice to prospective investors in the European Economic Area***

In relation to each Member State of the European Economic Area (each a Relevant State), no shares have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that the shares may be offered to the public in that Relevant State at any time:

(i) to any legal entity which is a qualified investor as defined under Article 2 of the Prospectus Regulation;

(ii) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or

(iii) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares shall require us or any of the representatives to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an “offer to the public” in relation to shares in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

***Notice to prospective investors in the United Kingdom***

No shares have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the shares which has been approved by the Financial Conduct Authority, except that the shares may be offered to the public in the United Kingdom at any time:

(i) to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;

(ii) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or

(iii) in any other circumstances falling within Section 86 of the FSMA, provided that no such offer of the shares shall require the Issuer or any Manager to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation. For the purposes of this provision, the expression an “offer to the public” in relation to the shares in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares and the expression “UK Prospectus Regulation” means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

***Notice to prospective investors in Canada***

The shares may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

***Notice to prospective investors in Switzerland***

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (SIX) or on any other stock exchange or regulated trading facility in Switzerland. This document does not constitute a prospectus within the meaning of, and has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company, the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA (FINMA), and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes (CISA). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

***Notice to prospective investors in the Dubai International Financial Centre***

This document relates to an Exempt Offer in accordance with the Markets Rules 2012 of the Dubai Financial Services Authority (DFSA). This document is intended for distribution only to persons of a type specified in the Markets Rules 2012 of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus supplement nor taken steps to verify the information set forth herein and has no responsibility for this document. The securities to which this document relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the securities offered should conduct their own due diligence on the securities. If you do not understand the contents of this document you should consult an authorized financial advisor.

In relation to its use in the DIFC, this document is strictly private and confidential and is being distributed to a limited number of investors and must not be provided to any person other than the original recipient, and may not be reproduced or used for any other purpose. The interests in the securities may not be offered or sold directly or indirectly to the public in the DIFC.

***Notice to prospective investors in the United Arab Emirates***

The shares have not been, and are not being, publicly offered, sold, promoted or advertised in the United Arab Emirates (including the Dubai International Financial Centre) other than in compliance with the laws of the United Arab Emirates (and the Dubai International Financial Centre) governing the issue, offering and sale of

securities. Further, this prospectus does not constitute a public offer of securities in the United Arab Emirates (including the Dubai International Financial Centre) and is not intended to be a public offer. This prospectus has not been approved by or filed with the Central Bank of the United Arab Emirates, the Securities and Commodities Authority or the Dubai Financial Services Authority.

***Notice to prospective investors in Australia***

This prospectus:

- does not constitute a disclosure document or a prospectus under Chapter 6D.2 of the Corporations Act 2001 (Cth) (the Corporations Act);
- has not been, and will not be, lodged with the Australian Securities and Investments Commission (ASIC), as a disclosure document for the purposes of the Corporations Act and does not purport to include the information required of a disclosure document for the purposes of the Corporations Act; and
- may only be provided in Australia to select investors who are able to demonstrate that they fall within one or more of the categories of investors, available under section 708 of the Corporations Act (Exempt Investors).

The shares may not be directly or indirectly offered for subscription or purchased or sold, and no invitations to subscribe for or buy the shares may be issued, and no draft or definitive offering memorandum, advertisement or other offering material relating to any shares may be distributed in Australia, except where disclosure to investors is not required under Chapter 6D of the Corporations Act or is otherwise in compliance with all applicable Australian laws and regulations. By submitting an application for the shares, you represent and warrant to us that you are an Exempt Investor.

As any offer of shares under this document will be made without disclosure in Australia under Chapter 6D.2 of the Corporations Act, the offer of those securities for resale in Australia within 12 months may, under section 707 of the Corporations Act, require disclosure to investors under Chapter 6D.2 if none of the exemptions in section 708 applies to that resale. By applying for the shares you undertake to us that you will not, for a period of 12 months from the date of issue of the shares, offer, transfer, assign or otherwise alienate those shares to investors in Australia except in circumstances where disclosure to investors is not required under Chapter 6D.2 of the Corporations Act or where a compliant disclosure document is prepared and lodged with ASIC.

***Notice to prospective investors in Japan***

The shares have not been and will not be registered pursuant to Article 4, Paragraph 1 of the Financial Instruments and Exchange Act. Accordingly, none of the shares nor any interest therein may be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any “resident” of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to or for the benefit of a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and any other applicable laws, regulations and ministerial guidelines of Japan in effect at the relevant time.

***Notice to prospective investors in Hong Kong***

The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (i) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong), or the SFO, of Hong Kong and any rules made thereunder; or (ii) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding

Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong, or the CO, or which do not constitute an offer to the public within the meaning of the CO. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made thereunder.

***Notice to prospective investors in Singapore***

Each representative has acknowledged that this prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each representative has represented and agreed that it has not offered or sold any shares or caused the shares to be made the subject of an invitation for subscription or purchase and will not offer or sell any shares or cause the shares to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this prospectus or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares, whether directly or indirectly, to any person in Singapore other than:

(i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time, or the SFA) pursuant to Section 274 of the SFA;

(ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA; or

(iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(i) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(ii) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares pursuant to an offer made under Section 275 of the SFA except:

(i) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(ii) where no consideration is or will be given for the transfer;

(iii) where the transfer is by operation of law;

(iv) as specified in Section 276(7) of the SFA; or

(v) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

Singapore SFA Product Classification—In connection with Section 309B of the SFA and the CMP Regulations 2018, unless otherwise specified before an offer of the shares, the Company has determined, and hereby notifies all relevant persons (as defined in Section 309A(1) of the SFA), that the shares are "prescribed capital markets products" (as defined in the CMP Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

***Notice to prospective investors in Bermuda***

Shares may be offered or sold in Bermuda only in compliance with the provisions of the Investment Business Act of 2003 of Bermuda which regulates the sale of securities in Bermuda. Additionally, non-Bermudian persons (including companies) may not carry on or engage in any trade or business in Bermuda unless such persons are permitted to do so under applicable Bermuda legislation.

***Notice to prospective investors in Saudi Arabia***

This document may not be distributed in the Kingdom of Saudi Arabia except to such persons as are permitted under the Offers of Securities Regulations as issued by the board of the Saudi Arabian Capital Market Authority, or CMA, pursuant to resolution number 2-11-2004 dated 4 October 2004 as amended by resolution number 1-28-2008, as amended. The CMA does not make any representation as to the accuracy or completeness of this document and expressly disclaims any liability whatsoever for any loss arising from, or incurred in reliance upon, any part of this document. Prospective purchasers of the securities offered hereby should conduct their own due diligence on the accuracy of the information relating to the securities. If you do not understand the contents of this document, you should consult an authorized financial adviser.

***Notice to prospective investors in the British Virgin Islands***

The shares are not being, and may not be offered to the public or to any person in the British Virgin Islands for purchase or subscription by or on behalf of the Company. The shares may be offered to companies incorporated under the BVI Business Companies Act, 2004 (British Virgin Islands), or BVI Companies, but only where the offer will be made to, and received by, the relevant BVI Company entirely outside of the British Virgin Islands.

***Notice to prospective investors in China***

This prospectus will not be circulated or distributed in the PRC and the shares will not be offered or sold, and will not be offered or sold to any person for re-offering or resale directly or indirectly to any residents of the PRC except pursuant to any applicable laws and regulations of the PRC. Neither this prospectus nor any advertisement or other offering material may be distributed or published in the PRC, except under circumstances that will result in compliance with applicable laws and regulations.

***Notice to prospective investors in Korea***

The shares have not been and will not be registered under the Financial Investments Services and Capital Markets Act of Korea and the decrees and regulations thereunder, or the FSCMA, and the shares have been and will be offered in Korea as a private placement under the FSCMA. None of the shares may be offered, sold or delivered directly or indirectly, or offered or sold to any person for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea except pursuant to the applicable laws and regulations of Korea, including the FSCMA and the Foreign Exchange Transaction Law of Korea and the decrees and regulations thereunder, or the FETL. The shares have not been listed on any of the securities exchanges in the world including, without

limitation, the Korea Exchange in Korea. Furthermore, the purchaser of the shares shall comply with all applicable regulatory requirements (including but not limited to requirements under the FETL) in connection with the purchase of the shares. By the purchase of the shares, the relevant holder thereof will be deemed to represent and warrant that if it is in Korea or is a resident of Korea, it purchased the shares pursuant to the applicable laws and regulations of Korea.

***Notice to prospective investors in Malaysia***

No prospectus or other offering material or document in connection with the offer and sale of the shares has been or will be registered with the Securities Commission of Malaysia, or Commission, for the Commission's approval pursuant to the Capital Markets and Services Act 2007. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Malaysia other than (i) a closed end fund approved by the Commission; (ii) a holder of a Capital Markets Services License; (iii) a person who acquires the shares, as principal, if the offer is on terms that the shares may only be acquired at a consideration of not less than RM250,000 (or its equivalent in foreign currencies) for each transaction; (iv) an individual whose total net personal assets or total net joint assets with his or her spouse exceeds RM3 million (or its equivalent in foreign currencies), excluding the value of the primary residence of the individual; (v) an individual who has a gross annual income exceeding RM300,000 (or its equivalent in foreign currencies) per annum in the preceding twelve months; (vi) an individual who, jointly with his or her spouse, has a gross annual income of RM400,000 (or its equivalent in foreign currencies), per annum in the preceding twelve months; (vii) a corporation with total net assets exceeding RM10 million (or its equivalent in a foreign currencies) based on the last audited accounts; (viii) a partnership with total net assets exceeding RM10 million (or its equivalent in foreign currencies); (ix) a bank licensee or insurance licensee as defined in the Labuan Financial Services and Securities Act 2010; (x) an Islamic bank licensee or takaful licensee as defined in the Labuan Financial Services and Securities Act 2010; and (xi) any other person as may be specified by the Commission; provided that, in the each of the preceding categories (i) to (xi), the distribution of the shares is made by a holder of a Capital Markets Services License who carries on the business of dealing in securities. The distribution in Malaysia of this prospectus is subject to Malaysian laws. This prospectus does not constitute and may not be used for the purpose of public offering or an issue, offer for subscription or purchase, invitation to subscribe for or purchase any securities requiring the registration of a prospectus with the Commission under the Capital Markets and Services Act 2007.

***Notice to prospective investors in Taiwan***

The shares have not been and will not be registered with the Financial Supervisory Commission of Taiwan pursuant to relevant securities laws and regulations and may not be sold, issued or offered within Taiwan through a public offering or in circumstances which constitutes an offer within the meaning of the Securities and Exchange Act of Taiwan that requires a registration or approval of the Financial Supervisory Commission of Taiwan. No person or entity in Taiwan has been authorized to offer, sell, give advice regarding or otherwise intermediate the offering and sale of the shares in Taiwan.

***Notice to prospective investors in South Africa***

Due to restrictions under the securities laws of South Africa, no "offer to the public" (as such term is defined in the South African Companies Act, No. 71 of 2008 (as amended or re-enacted), or the South African Companies Act) is being made in connection with the issue of the shares in South Africa. Accordingly, this document does not, nor is it intended to, constitute a "registered prospectus" (as that term is defined in the South African Companies Act) prepared and registered under the South African Companies Act and has not been approved by, and/or filed with, the South African Companies and Intellectual Property Commission or any other regulatory authority in South Africa. The shares are not offered, and the offer shall not be transferred, sold, renounced or delivered, in South Africa or to a person with an address in South Africa, unless one or other of the following exemptions stipulated in section 96 (1) applies:

Section 96 (1)(a) the offer, transfer, sale, renunciation or delivery is to:

(i) persons whose ordinary business, or part of whose ordinary business, is to deal in securities, as principal or agent;

(ii) the South African Public Investment Corporation;

(iii) persons or entities regulated by the Reserve Bank of South Africa;

(iv) authorized financial service providers under South African law;

(v) financial institutions recognized as such under South African law;

(vi) a wholly-owned subsidiary of any person or entity contemplated in (c), (d) or (e), acting as agent in the capacity of an authorized portfolio manager for a pension fund, or as manager for a collective investment scheme (in each case duly registered as such under South African law); or

(vi) any combination of the person in (i) to (vi); or

Section 96 (1) (b) the total contemplated acquisition cost of the securities, for any single addressee acting as principal is equal to or greater than ZAR1,000,000 or such higher amount as may be promulgated by notice in the Government Gazette of South Africa pursuant to section 96(2)(a) of the South African Companies Act.

Information made available in this prospectus should not be considered as "advice" as defined in the South African Financial Advisory and Intermediary Services Act, 2002.

# Legal matters

The validity of the shares of common stock offered hereby will be passed upon for us by Latham & Watkins LLP, San Diego, California. The underwriters are being represented by Cooley LLP, San Diego, California.

# Experts

The consolidated financial statements of Erasca, Inc. and subsidiaries as of December 31, 2019 and 2020, and for each of the years in the two-year period ended December 31, 2020, have been included herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, appearing elsewhere herein, and upon the authority of said firm as experts in accounting and auditing.

# Where you can find more information

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith. For further information about us and the common stock offered hereby, we refer you to the registration statement and the exhibits and schedules filed thereto. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. Upon the closing of this offering, we will be required to file periodic reports, proxy statements and other information with the SEC pursuant to the Exchange Act. The SEC maintains an Internet website that contains reports, proxy statements and other information about registrants, like us, that file electronically with the SEC. The address of that site is www.sec.gov.

Upon the effectiveness of the registration statement of which this prospectus is a part, we will become subject to the information and periodic reporting requirements of the Exchange Act and, in accordance therewith, will file periodic reports, proxy statements and other information with the SEC. Such periodic reports, proxy statements and other information will be available at the website of the SEC referred to above. We maintain a website at www.erasca.com. Upon the closing of this offering, you may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The reference to our website address does not constitute incorporation by reference of the information contained on our website, and you should not consider the contents of our website in making an investment decision with respect to our common stock. We have included our website address as an inactive textual reference only.

# Erasca, Inc.
# Index to consolidated financial statements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# Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Erasca, Inc.:

***Opinion on the Consolidated Financial Statements***

We have audited the accompanying consolidated balance sheets of Erasca, Inc. and subsidiaries (the Company) as of December 31, 2019 and 2020, the related consolidated statements of operations and comprehensive loss, convertible preferred stock and stockholders' deficit, and cash flows for each of the years in the two-year period ended December 31, 2020, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2020, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2020, in conformity with US generally accepted accounting principles.

***Basis for Opinion***

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the US federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

***KPMG LLP***

We have served as the Company's auditor since 2020.

San Diego, CA
May 7, 2021

# Erasca, Inc.
# Consolidated balance sheets
**(In thousands, except share and par value amounts)**

| | December 31, 2019 | December 31, 2020 | March 31, 2021 (unaudited) |
|---|---|---|---|
| **Assets** | | | |
| Current assets: | | | |
| Cash and cash equivalents | $ 29,583 | $ 65,376 | $ 169,989 |
| Short-term investments | 20,786 | 53,325 | 42,351 |
| Prepaid expenses and other current assets | 752 | 1,289 | 2,004 |
| Total current assets | 51,121 | 119,990 | 214,344 |
| Long-term investments | — | — | 5,000 |
| Property and equipment, net | 1,502 | 1,847 | 1,746 |
| Operating lease assets | 2,833 | 2,225 | 2,053 |
| Restricted cash | — | 312 | 408 |
| Other assets | 56 | 451 | 1,077 |
| Total assets | $ 55,512 | $ 124,825 | $ 224,628 |
| **Liabilities, Convertible Preferred Stock and Stockholders' Deficit** | | | |
| Current liabilities: | | | |
| Accounts payable | $ 1,381 | $ 878 | $ 1,042 |
| Accrued expenses and other current liabilities | 643 | 11,925 | 9,274 |
| Operating lease liabilities | 726 | 877 | 898 |
| Total current liabilities | 2,750 | 13,680 | 11,214 |
| Operating lease liabilities, net of current portion | 2,963 | 2,109 | 1,875 |
| Preferred stock purchase right liability | — | 1,615 | — |
| Total liabilities | 5,713 | 17,404 | 13,089 |
| Commitments and contingencies (Note 12) | | | |
| Convertible Preferred Stock (Series A, B-1 and B-2), $0.0001 par value; 45,135,500, 97,622,409 and 97,622,409 shares authorized as of December 31, 2019 and 2020 and March 31, 2021 (unaudited), respectively; 38,103,681, 69,584,682 and 85,516,454 shares issued and outstanding as of December 31, 2019 and 2020 and March 31, 2021 (unaudited), respectively; aggregate liquidation preference of $63,519, $230,924 and $350,412 as of December 31, 2019 and 2020 and March 31, 2021 (unaudited), respectively | 63,403 | 221,405 | 340, 798 |
| Stockholders' deficit: | | | |
| Common stock, $0.0001 par value; 80,000,000, 147,027,681 and 156,000,000 shares authorized as of December 31, 2019 and 2020 and March 31, 2021 (unaudited), respectively; 27,155,000, 30,227,626 and 31,355,165 shares issued as of December 31, 2019 and 2020 and March 31, 2021 (unaudited), respectively, and 24,618,854, 26,307,835 and 27,450,062 shares outstanding as of December 31, 2019 and 2020 and March 31, 2021 (unaudited), respectively | 3 | 3 | 3 |
| Additional paid-in capital | 124 | 1,413 | 4,156 |
| Accumulated other comprehensive income | 11 | 2 | 1 |
| Accumulated deficit | (13,742) | (115,402) | (133,419) |
| Total stockholders' deficit | (13,604) | (113,984) | (129,259) |
| Total liabilities, convertible preferred stock and stockholders' deficit | $ 55,512 | $ 124,825 | $ 224,628 |

*See accompanying notes to consolidated financial statements.*

# Erasca, Inc.
# Consolidated statements of operations and comprehensive loss
**(In thousands, except share and per share amounts)**

| | Year ended December 31, | | Three months ended March 31, | |
|---|---|---|---|---|
| | 2019 | 2020 | 2020 | 2021 |
| | | | (unaudited) | |
| Operating expenses: | | | | |
| Research and development | $ 9,618 | $ 29,550 | $ 4,554 | $ 12,245 |
| In-process research and development | — | 71,745 | 17,670 | 3,680 |
| General and administrative | 3,676 | 7,957 | 1,611 | 3,682 |
| Total operating expenses | 13,294 | 109,252 | 23,835 | 19,607 |
| Loss from operations | (13,294) | (109,252) | (23,835) | (19,607) |
| Other income (expense) | | | | |
| Interest income | 1,303 | 336 | 185 | 30 |
| Other expense | (49) | (102) | (8) | (55) |
| Change in fair value of preferred stock purchase right liability | — | 7,358 | — | 1,615 |
| Total other income (expense), net | 1,254 | 7,592 | 177 | 1,590 |
| Net loss | $ (12,040) | $ (101,660) | $ (23,658) | $ (18,017) |
| Net loss per share, basic and diluted | $ (0.51) | $ (4.03) | $ (0.96) | $ (0.68) |
| Weighted-average shares of common stock used in computing net loss per share, basic and diluted | 23,795,645 | 25,247,998 | 24,760,841 | 26,684,702 |
| Other comprehensive income (loss): | | | | |
| Unrealized gain (loss) on investments, net | 11 | (9) | (22) | (1) |
| Comprehensive loss | $ (12,029) | $ (101,669) | $ (23,680) | $ (18,018) |

*See accompanying notes to consolidated financial statements.*

# Erasca, Inc.
# Consolidated statements of convertible preferred stock and stockholders' deficit
**(In thousands, except share data)**

| | Convertible preferred stock | | Common stock | | Additional paid-in capital | Accumulated other comprehensive income (loss) | Accumulated deficit | Total stockholders' deficit |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | Shares | Amount | | | | |
| Balance at December 31, 2018 | 27,953,681 | $ 46,538 | 27,155,000 | $ 3 | $ 2 | $ — | $ (1,702) | $ (1,697) |
| Issuance of Series A convertible preferred stock for cash, net of $55 in issuance costs | 10,150,000 | 16,865 | — | — | — | — | — | — |
| Stock-based compensation expense | — | — | — | — | 122 | — | — | 122 |
| Net loss | — | — | — | — | — | — | (12,040) | (12,040) |
| Unrealized gain on short-term investments, net | — | — | — | — | — | 11 | — | 11 |
| Balance at December 31, 2019 | 38,103,681 | $ 63,403 | 27,155,000 | $ 3 | $ 124 | $ 11 | $ (13,742) | $ (13,604) |
| Issuance of Series B-1 convertible preferred stock for cash, net of $430 in issuance costs and preferred stock purchase right liability of $8,973 | 27,481,001 | 128,002 | — | — | — | — | — | — |
| Issuance of Series B-2 convertible preferred stock in connection with asset acquisition | 4,000,000 | 30,000 | — | — | — | — | — | — |
| Exercise of stock options | — | — | 4,250,544 | — | 170 | — | — | 170 |
| Vesting of early exercised stock options | — | — | — | — | 322 | — | — | 322 |
| Repurchases of early exercised stock options and restricted stock | — | — | (1,177,918) | — | — | — | — | — |
| Stock-based compensation expense | — | — | — | — | 797 | — | — | 797 |
| Net loss | — | — | — | — | — | — | (101,660) | (101,660) |
| Unrealized loss on short-term investments, net | — | — | — | — | — | (9) | — | (9) |
| Balance at December 31, 2020 | 69,584,682 | $ 221,405 | 30,227,626 | $ 3 | $ 1,413 | $ 2 | $ (115,402) | $ (113,984) |
| Issuance of Series B-2 convertible preferred stock for cash, net of $95 in issuance costs (unaudited) | 15,931,772 | 119,393 | — | — | — | — | — | — |
| Issuance of common stock in connection with asset acquisition (unaudited) | — | — | 600,000 | — | 1,680 | — | — | 1,680 |

| | Convertible preferred stock | | Common stock | | Additional paid-in capital | Accumulated other comprehensive income (loss) | Accumulated deficit | Total stockholders' deficit |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | Shares | Amount | | | | |
| Exercise of stock options (unaudited) | — | — | 527,539 | — | 94 | — | — | 94 |
| Vesting of early exercised stock options (unaudited) | — | — | — | — | 174 | — | — | 174 |
| Stock-based compensation expense (unaudited) | — | — | — | — | 795 | — | — | 795 |
| Net loss (unaudited) | — | — | — | — | — | — | (18,017) | (18,017) |
| Unrealized loss on investments, net (unaudited) | — | — | — | — | — | (1) | — | (1) |
| Balance at March 31, 2021 (unaudited) | 85,516,454 | $ 340,798 | 31,355,165 | $ 3 | $ 4,156 | $ 1 | $ (133,419) | $ (129,259) |

| | Convertible preferred stock | | Common stock | | Additional paid-in capital | Accumulated other comprehensive income (loss) | Accumulated deficit | Total stockholders' deficit |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | Shares | Amount | | | | |
| Balance at December 31, 2019 | 38,103,681 | $ 63,403 | 27,155,000 | $ 3 | $ 124 | $ 11 | $ (13,742) | $ (13,604) |
| Exercise of stock options (unaudited) | — | — | 875,000 | — | — | — | — | — |
| Stock-based compensation expense (unaudited) | — | — | — | — | 105 | — | — | 105 |
| Net loss (unaudited) | — | — | — | — | — | — | (23,658) | (23,658) |
| Unrealized loss on short- term investments, net (unaudited) | — | — | — | — | — | (22) | — | (22) |
| Balance at March 31, 2020 (unaudited) | 38,103,681 | $ 63,403 | 28,030,000 | $ 3 | $ 229 | $ (11) | $ (37,400) | $ (37,179) |

*See accompanying notes to consolidated financial statements.*

# Erasca, Inc.
# Consolidated statements of cash flows
**(In thousands)**

| | Year ended December 31, | | Three months ended March 31, | |
|---|---|---|---|---|
| | 2019 | 2020 | 2020 | 2021 |
| | | | (unaudited) | |
| **Cash flows from operating activities:** | | | | |
| Net loss | $ (12,040) | $ (101,660) | $ (23,658) | $ (18,017) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | | | |
| Depreciation and amortization | 310 | 540 | 121 | 149 |
| Stock-based compensation expense | 122 | 797 | 105 | 795 |
| In-process research and development expenses | — | 71,745 | 17,670 | 3,680 |
| (Accretion) amortization on investments, net | (485) | (38) | (16) | 13 |
| Loss on asset disposal | 2 | 2 | — | — |
| Change in fair value of preferred stock purchase right liability | — | (7,358) | — | (1,615) |
| Changes in operating assets and liabilities: | | | | |
| Prepaid expenses and other current and long-term assets | (69) | (932) | (45) | (1,158) |
| Accounts payable | 1,172 | (380) | (309) | 175 |
| Accrued expenses and other current liabilities | 406 | 4,693 | 514 | 353 |
| Operating lease assets and liabilities, net | 204 | (95) | 8 | (41) |
| Net cash used in operating activities | (10,378) | (32,686) | (5,610) | (15,666) |
| **Cash flows from investing activities:** | | | | |
| Purchases of investments | (58,890) | (99,202) | — | (21,990) |
| Maturities of investments | 38,600 | 66,692 | 7,550 | 27,950 |
| In-process research and development | — | (37,745) | (6,000) | (6,000) |
| Purchases of property and equipment | (597) | (947) | (558) | (122) |
| Net cash (used in) provided by investing activities | (20,887) | (71,202) | 992 | (162) |
| **Cash flows from financing activities:** | | | | |
| Proceeds from the exercise of stock options, net of repurchases | — | 3,018 | 490 | 1,144 |
| Proceeds from the issuance of convertible preferred stock, net of issuance costs | 16,865 | 136,975 | — | 119,393 |
| Net cash provided by financing activities | 16,865 | 139,993 | 490 | 120,537 |
| Net (decrease) increase in cash, cash equivalents and restricted cash | (14,400) | 36,105 | (4,128) | 104,709 |
| Cash, cash equivalents and restricted cash at beginning of year | 43,983 | 29,583 | 29,583 | 65,688 |
| Cash, cash equivalents and restricted cash at end of year | $ 29,583 | $ 65,688 | $ 25,455 | $ 170,397 |
| **Supplemental disclosure of cash flow information:** | | | | |
| Cash paid for taxes | $ 13 | $ 69 | $ 35 | $ 65 |
| **Supplemental disclosure of noncash investing and financing activities:** | | | | |
| Issuance of Series B-2 convertible preferred stock in connection with asset acquisition | $ — | $ 30,000 | $ — | $ — |
| Issuance of common stock in connnection with asset acquisition | $ — | $ — | $ — | $ 1,680 |
| Amounts accrued for purchases of property and equipment | $ 134 | $ 74 | $ 186 | $ — |
| Amounts accrued for in-process research and development expenses | $ — | $ 4,000 | $ 11,670 | $ — |
| Amounts accrued for deferred offering costs | $ — | $ — | $ 108 | $ 183 |
| Vesting of early exercised options | $ — | $ 322 | $ — | $ 174 |
| Preferred stock purchase right liability | $ — | $ 8,973 | $ — | $ — |
| **Supplemental disclosure of noncash operating activities:** | | | | |
| Recognition of operating lease assets upon adoption of ASC 842 | $ 1,893 | $ — | $ — | $ — |
| Operating lease assets obtained in exchange for lease obligation | $ 1,245 | $ 28 | $ — | $ — |

*See accompanying notes to consolidated financial statements.*

# Erasca, Inc.
# Notes to consolidated financial statements

## 1. Organization and basis of presentation

***Organization and nature of operations***

Erasca, Inc. (Erasca or the Company) is a clinical-stage precision oncology company singularly focused on discovering, developing, and commercializing therapies for RAS/MAPK pathway-driven cancers. The Company has assembled a wholly-owned or controlled RAS/MAPK pathway-focused pipeline comprising 11 modality-agnostic programs aligned with its three therapeutic strategies of: (i) targeting key upstream and downstream signaling nodes in the RAS/MAPK pathway; (ii) targeting RAS directly; and (iii) targeting escape routes that emerge in response to treatment. The Company was incorporated under the laws of the State of Delaware on July 2, 2018, as Erasca, Inc., and is headquartered in San Diego, California. In September 2020, the Company established a wholly-owned Australian subsidiary, Erasca Australia Pty Ltd, in order to conduct clinical activities for its development candidates. In March 2021, the Company established a wholly-owned subsidiary, Erasca Ventures, LLC, to potentially make equity investments in early-stage biotechnology companies that are aligned with the Company's mission and strategy.

Since inception, the Company has devoted substantially all of its efforts and resources to organizing and staffing the Company, business planning, raising capital, identifying, acquiring and in-licensing the Company's product candidates, establishing its intellectual property portfolio, conducting research, preclinical studies, and clinical trials, establishing arrangements with third parties for the manufacture of its product candidates and related raw materials, and providing general and administrative support for these operations. As of December 31, 2020 and March 31, 2021 (unaudited), the Company had $118.7 million and $212.3 million in cash, cash equivalents, and short-term investments, respectively. As of December 31, 2020 and March 31, 2021 (unaudited), the Company had an accumulated deficit of $115.4 million and $133.4 million, respectively. The Company has incurred significant operating losses and negative cash flows from operations. From its inception through March 31, 2021 (unaudited), the Company's financial support has primarily been provided from the sale of its convertible preferred stock.

As the Company continues its expansion, it expects to use its cash, cash equivalents, and short-term investments to fund research and development, working capital, and other general corporate purposes. The Company does not expect to generate any revenues from product sales unless and until the Company successfully completes development and obtains regulatory approval for any of its product candidates, which will not be for at least the next several years, if ever. Accordingly, until such time as the Company can generate significant revenue from sales of its product candidates, if ever, the Company expects to finance its cash needs through equity offerings, debt financings, or other capital sources, including potential collaborations, licenses or other similar arrangements. However, the Company may not be able to secure additional financing or enter into such other arrangements in a timely manner or on favorable terms, if at all. The Company's failure to raise capital or enter into such other arrangements when needed would have a negative impact on the Company's financial condition and could force the Company to delay, limit, reduce or terminate its research and development programs or other operations, or grant rights to develop and market product candidates that the Company would otherwise prefer to develop and market itself. The Company believes its cash, cash equivalents, and short-term investments as of March 31, 2021 will be sufficient for the Company to fund operations for at least one year from the issuance date of these consolidated financial statements.

***Basis of presentation***

The accompanying consolidated financial statements have been prepared in accordance with US generally accepted accounting principles (US GAAP). Any reference in these notes to applicable guidance is meant to refer to US GAAP as found in the Accounting Standards Codification (ASC) and Accounting Standards Updates (ASU) promulgated by the Financial Accounting Standards Board (FASB).

***Principles of consolidation and foreign currency transactions***

The Company's consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, Erasca Australia Pty Ltd (Erasca Australia) and Erasca—ASN Product Development, Inc. (ASN). Erasca Australia was registered under the laws of Australia on September 1, 2020 and ASN was incorporated under the laws of the State of Delaware on November 23, 2020. On March 30, 2021, the Company formed Erasca Ventures, LLC, a wholly-owned subsidiary, under the laws of the State of Delaware. All intercompany balances and transactions have been eliminated. The functional currency of the Company and its wholly-owned subsidiaries is the US dollar. Assets and liabilities that are not denominated in the functional currency are remeasured into US dollars at foreign currency exchange rates in effect at the balance sheet date except for nonmonetary assets, which are remeasured at historical foreign currency exchange rates in effect at the date of transaction. Net realized and unrealized gains and losses from foreign currency transactions and remeasurement are reported in other income (expense), in the consolidated statements of operations and comprehensive loss and were not material for all periods presented.

## 2. Summary of significant accounting policies

***Use of estimates***

The preparation of the Company's consolidated financial statements in conformity with US GAAP requires the Company to make estimates and assumptions that impact the reported amounts of assets, liabilities, expenses, and the disclosure of contingent assets and liabilities in the consolidated financial statements and accompanying notes. Accounting estimates and management judgments reflected in the consolidated financial statements include, but are not limited to, the accrual of research and development expenses, fair value of common stock, preferred stock and freestanding instruments, stock-based compensation expense, and the incremental borrowing rate for determining the operating lease asset and liability. Management evaluates its estimates on an ongoing basis. Although estimates are based on the Company's historical experience, knowledge of current events, and actions it may undertake in the future, actual results may ultimately materially differ from these estimates and assumptions.

***Unaudited interim financial information***

The accompanying consolidated balance sheet as of March 31, 2021, and the consolidated statements of operations and comprehensive loss, convertible preferred stock and stockholders' deficit and cash flows for the three months ended March 31, 2020 and 2021 are unaudited. The unaudited consolidated interim financial statements have been prepared on the same basis as the audited annual consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary for the fair statement of the Company's consolidated financial position as of March 31, 2021 and the consolidated results of its operations and cash flows for the three months ended March 31, 2020 and 2021. The consolidated financial data and other information disclosed in these notes related to the three months ended March 31, 2020 and 2021 are unaudited. The consolidated results for the three months ended March 31, 2021 are not necessarily indicative of results to be expected for the year ending December 31, 2021, any other interim periods, or any future year or period.

***Concentration of credit risk and off-balance sheet risk***

Financial instruments which potentially subject the Company to significant concentration of credit risk consist of cash and cash equivalents and investments. The Company maintains deposits in federally insured financial institutions in excess of federally insured limits. The Company has not experienced any losses in such accounts, and management believes that the Company is not exposed to significant credit risk due to the financial position of the depository institutions in which those deposits are held. The Company's investment policy includes guidelines for the quality of the related institutions and financial instruments and defines allowable investments that the Company may invest in, which the Company believes minimizes the exposure to concentration of credit risk.

***Cash and cash equivalents***

Cash and cash equivalents include cash in readily available checking and savings accounts, money market funds, commercial paper, and corporate debt securities. The Company considers all highly liquid investments with an original maturity of three months or less from the date of purchase to be cash equivalents.

***Restricted cash***

The Company had deposited cash of $312,000 and $408,000 as of December 31, 2020 and March 31, 2021 (unaudited), respectively, to secure a letter of credit in connection with the lease of the Company's facilities (see Note 11). The Company has classified the restricted cash as a noncurrent asset on its consolidated balance sheets. There was no restricted cash as of December 31, 2019.

***Investments***

The Company classifies all marketable securities as available-for-sale, as the sale of such securities may be required prior to maturity. Management determines the appropriate classification of its investments in debt securities at the time of purchase. Investments with original maturities beyond three months at the date of purchase and which mature at, or less than 12 months from, the balance sheet date are classified as short-term investments. Available-for-sale securities are carried at fair value, with the unrealized gains and losses reported as accumulated other comprehensive income (loss) until realized. The amortized cost of available-for-sale debt securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization and accretion are included in interest income. The Company regularly reviews all its investments for other-than-temporary declines in fair value. The review includes the consideration of the cause of the impairment, including the creditworthiness of the security issuers, the number of securities in an unrealized loss position, the severity and duration of the unrealized losses, whether the Company has the intent to sell the securities and whether it is more likely than not that the Company will be required to sell the securities before the recovery of their amortized cost basis. When the Company determines that the decline in fair value of an investment is below its accounting basis and the decline is other-than-temporary, the Company reduces the carrying value of the security it holds and records a loss for the amount of such decline. Realized gains and losses and declines in value judged to be other than temporary, if any, on available-for-sale securities are included in other income or expense. The cost of securities sold is based on the specific identification method. Interest and dividends on securities classified as available-for-sale are included in interest income.

***Fair value measurements***

Certain assets and liabilities are carried at fair value under US GAAP. Fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly

transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. Financial assets and liabilities carried at fair value are classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

**Level 1**—Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.

**Level 2**—Quoted prices for similar assets and liabilities in active markets, quoted prices in markets that are not active, or inputs which are observable, either directly or indirectly, for substantially the full term of the asset or liability.

**Level 3**—Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e., supported by little or no market activity).

***Property and equipment, net***

Property and equipment are stated at cost less accumulated depreciation. Depreciation and amortization are calculated using the straight-line method over the estimated useful lives of the respective assets, generally three to seven years. Leasehold improvements are amortized over the shorter of the estimated useful lives of the assets or the remaining lease term.

***Impairment of long-lived assets***

The Company continually evaluates long-lived assets for potential impairment when events or changes in circumstances indicate the carrying value of the assets may not be recoverable. Recoverability is measured by comparing the book values of the assets to the expected future net undiscounted cash flows that the assets are expected to generate. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the book values of the assets exceed their fair value. The Company did not recognize any impairment losses for the years ended December 31, 2019 and 2020 and the three months ended March 31, 2020 and 2021 (unaudited).

***Leases***

The Company leases real estate facilities and equipment under non-cancelable and cancelable operating leases with various expiration dates through fiscal year 2032. At the inception of an arrangement, the Company determines whether the arrangement is or contains a lease based on the unique facts and circumstances present, the existence of an identified asset(s), if any, and the Company's control over the use of the identified asset(s), if applicable.

The Company adopted ASU 2016-02, *Leases* (*Topic 842*) on January 1, 2019. The Company elected the package of practical expedients for transition under which the Company did not reassess its prior conclusions about lease identification, lease classification and initial direct costs. Additionally, the Company elected the hindsight and land easement practical expedients for transition under which conclusions around lease term, impairment and land easements will not be reassessed. The Company did not apply the portfolio approach to its lease agreements.

Operating leases are included in operating lease assets and in operating lease liabilities in the accompanying consolidated balance sheets. Operating lease assets represent the Company's right to use an underlying asset for the lease term, and lease liabilities represent the Company's obligation to make lease payments arising

from the lease. Operating lease liabilities are recognized at the lease commencement date based on the present value of lease payments over the lease term discounted based on the more readily determinable of (i) the rate implicit in the lease or (ii) the Company's incremental borrowing rate (which is the estimated rate the Company would be required to pay for a collateralized borrowing equal to the total lease payments over the term of the lease). Because the Company's operating leases generally do not provide an implicit rate, the Company estimates its incremental borrowing rate based on the information available at lease commencement date for borrowings with a similar term.

The Company's operating lease assets are measured based on the corresponding operating lease liability adjusted for (i) payments made to the lessor at or before the commencement date, (ii) initial direct costs incurred and (iii) tenant incentives under the lease. The Company does not assume renewals or early terminations unless it is reasonably certain to exercise these options at commencement. The Company elected the practical expedient which allows the Company to not allocate consideration between lease and non-lease components. Variable lease payments are recognized in the period in which the obligations for those payments are incurred. In addition, the Company elected the practical expedient such that it does not recognize lease assets or lease liabilities for leases with a term of 12 months or less of all asset classes. Operating lease expense is recognized on a straight-line basis over the lease term.

***Research and development expense***

Research and development expenses consist of external and internal costs associated with the Company's research and development activities, including its discovery and research efforts and the preclinical and clinical development of its product candidates. Research and development costs are expensed as incurred. The Company's research and development expenses include external costs, consisting of expenses incurred under arrangements with third parties, such as contract research organizations, contract manufacturers, consultants and its scientific advisors; and internal costs, consisting of employee-related expenses, including salaries, benefits, and stock-based compensation for those individuals involved in research and development efforts, the costs of laboratory supplies and acquiring, developing and manufacturing preclinical study materials, and facilities and depreciation, which include direct and allocated expenses for rent of facilities and depreciation of equipment.

The Company records accruals for estimated research and development costs, comprising payments for work performed by third party contractors, laboratories, and others. Some of these contractors bill monthly based on actual services performed, while others bill periodically based upon achieving certain contractual milestones. For the latter, the Company accrues the expenses as goods or services are used or rendered. Non-refundable advance payments for goods or services that will be used or rendered for future research and development activities are deferred and capitalized as prepaid expenses until the related goods are delivered or services are performed.

***In-process research and development expense***

The Company has acquired rights as part of asset acquisitions or in-licenses to develop and commercialize product candidates. Upfront payments that relate to the acquisition of a new drug compound, as well as pre-commercial milestone payments, are immediately expensed as in-process research and development (IPR&D) in the period in which they are incurred, provided that the new drug compound did not also include processes or activities that would constitute a "business" as defined under US GAAP, the drug has not achieved regulatory approval for marketing and, absent obtaining such approval, has no established alternative future use. The Company accounts for contingent consideration payable upon achievement of certain regulatory, development or sales milestones in such asset acquisitions when the underlying contingency is resolved.

Milestone payments made to third parties subsequent to regulatory approval will be capitalized as intangible assets and amortized over the estimated remaining useful life of the related product.

***Patent costs***

The Company expenses all costs as incurred in connection with patent applications (including direct application fees, and the legal and consulting expenses related to making such applications) and such costs are included in general and administrative expenses in the consolidated statements of operations and comprehensive loss.

***Deferred offering costs***

The Company capitalizes certain legal, professional accounting and other third-party fees that are directly associated with in-process equity financings as deferred offering costs until such financings are consummated. After consummation of the equity financing, these costs are recorded in stockholders' deficit as a reduction of proceeds generated as a result of the offering. Should the in-process equity financing be abandoned, the deferred offering costs will be expensed immediately as a charge to operating expenses in the consolidated statements of operations and comprehensive loss. There were no deferred offering costs on the Company's consolidated balance sheets as of December 31, 2019 and 2020 and $183,000 of deferred offering costs as of March 31, 2021 (unaudited) included in other assets on the Company's consolidated balance sheet.

***Common stock valuation***

Due to the absence of an active market for the Company's common stock, the Company utilized methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants' Audit and Accounting Practice Guide: *Valuation of Privately-Held Company Equity Securities Issued as Compensation* to estimate the fair value of its common stock. In determining the exercise prices for options granted, the Company has considered the fair value of the common stock as of the grant date. The fair value of the common stock has been determined based upon a variety of factors, including valuations of the Company's common stock performed with the assistance of independent third-party valuation specialists; the Company's stage of development and business strategy, including the status of research and development efforts of its product candidates, and the material risks related to its business and industry; the Company's business conditions and projections; the Company's results of operations and financial position, including its levels of available capital resources; the valuation of publicly traded companies in the life sciences and biotechnology sectors, as well as recently completed mergers and acquisitions of peer companies; the lack of marketability of the Company's common stock as a private company; the prices of the Company's convertible preferred stock sold to investors in arm's length transactions and the rights, preferences and privileges of its convertible preferred stock relative to those of its common stock; the likelihood of achieving a liquidity event for the holders of the Company's common stock, such as an initial public offering or a sale of the Company given prevailing market conditions; trends and developments in its industry; the hiring of key personnel and the experience of management; and external market conditions affecting the life sciences and biotechnology industry sectors. Significant changes to the key assumptions underlying the factors used could result in different fair values of common stock at each valuation date.

***Stock-based compensation***

The Company measures employee and nonemployee stock-based awards based on the fair value on the date of grant and records compensation expense on a straight-line basis over the requisite service period of the award. The Company records the expense for stock-based compensation awards subject to performance-based milestone vesting over the implied service period when management determines that achievement of the

milestone is probable. Management evaluates when the achievement of a performance-based milestone is probable based on the expected satisfaction of the performance conditions at each reporting date. All stock-based compensation costs are recorded in the consolidated statements of operations and comprehensive loss based upon the underlying employees or nonemployee's roles within the Company. Forfeitures are accounted for as they occur.

The fair value of each stock option grant is estimated on the date of grant using the Black-Scholes options-pricing model, which requires inputs based on certain subjective assumptions, including the:

- *Fair value of common stock*. As there is no active market for the Company's common stock, the Company estimates the fair value of common stock on the date of grant based on the then current facts and circumstances.
- *Risk-free interest rate*. The risk-free interest rate is based on the US Treasury zero-coupon issues in effect at the time of grant for periods corresponding with the expected term of the options.
- *Expected volatility*. Given that the Company's common stock is privately held, there is no active trading market for its common stock. The Company derived the expected volatility from the average historical volatilities over a period approximately equal to the expected term of comparable publicly traded companies within its peer group that were deemed to be representative of future stock price trends. The Company will continue to apply this process until a sufficient amount of historical information regarding the volatility of its own stock price becomes available.
- *Expected term.* The expected term represents the period that the options granted are expected to be outstanding. The expected term of stock options issued is determined using the simplified method (based on the mid-point between the vesting date and the end of the contractual term) as the Company has concluded that its stock option exercise history does not provide a reasonable basis upon which to estimate expected term.
- *Expected dividend yield*. The Company has never paid dividends on its common stock and does not anticipate paying any dividends in the foreseeable future. Therefore, the Company used an expected dividend yield of zero.

The fair value of each restricted common stock award is estimated on the date of grant based on the fair value of the Company's common stock on that same date.

***Classification and accretion of convertible preferred stock***

The Company's convertible preferred stock is classified outside of stockholders' deficit on the consolidated balance sheets because the holders of such shares have liquidation rights in the event of a deemed liquidation that, in certain situations, are not solely within the control of the Company and would require the redemption of the then-outstanding convertible preferred stock. The convertible preferred stock is not redeemable, except in the event of a deemed liquidation (see Note 9). Because the occurrence of a deemed liquidation event is not currently probable, the carrying values of the convertible preferred stock are not being accreted to their redemption values. Subsequent adjustments to the carrying values of the convertible preferred stock would be made only when a deemed liquidation event becomes probable.

***Preferred stock purchase right liabilities***

The Company has entered into convertible preferred stock financings where, in addition to the initial closing, investors agree to buy, and the Company agrees to sell, additional shares of that convertible preferred stock at

a fixed price in the event that certain conditions are met or agreed upon milestones are achieved. The Company evaluates this purchase right and assesses whether it meets the definition of a freestanding instrument and, if so, determines the fair value of the purchase right liability and records it on the balance sheet with the remainder of the proceeds raised allocated to convertible preferred stock. The preferred stock purchase right liability is revalued at each reporting period with changes in the fair value of the liability recorded as change in fair value of preferred stock purchase right liability in the consolidated statements of operations and comprehensive loss. The preferred stock purchase right liability is revalued at settlement and the resultant fair value, if any, is then reclassified to convertible preferred stock at that time.

***Income taxes***

The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the Company's consolidated financial statements or tax returns. Under this method, deferred tax assets and liabilities are determined based on differences between the financial statement carrying amounts and the tax bases of the assets and liabilities using the enacted tax rates in effect in the years in which the differences are expected to reverse. A valuation allowance against deferred tax assets is recorded if, based on the weight of the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

The Company accounts for uncertainty in income taxes recognized in the consolidated financial statements by applying a two-step process to determine the amount of tax benefit to be recognized. First, the tax position must be evaluated to determine the likelihood that it will be sustained upon external examination by the taxing authorities. If the tax position is deemed more-likely-than-not to be sustained, the tax position is then assessed to determine the amount of benefit to recognize in the consolidated financial statements. The amount of the benefit that may be recognized is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement. The provision for income taxes includes the effects of any resulting tax reserves, or unrecognized tax benefits, that are considered appropriate as well as the related net interest and penalties. As of December 31, 2020, the Company's tax years since inception are subject to examination by taxing authorities due to the Company's unutilized net operating losses and tax credits.

***Comprehensive income (loss)***

The Company reports all components of comprehensive income (loss), including net loss, in the consolidated financial statements in the period in which they are recognized. Comprehensive income (loss) is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources, including unrealized gains and losses on investments. Other comprehensive income includes unrealized gains and losses on investments, which was the only difference between net loss and comprehensive loss for the applicable periods.

***Net loss per share***

The Company's net loss is equivalent to net loss attributable to common stockholders for all periods presented. Basic net loss per share is calculated by dividing the net loss by the weighted-average number of common shares outstanding during the period, without consideration of potentially dilutive securities. Diluted net loss per share is computed by dividing the net loss by the weighted-average number of common shares and potentially dilutive securities outstanding for the period. For purposes of the diluted net loss per share calculation, the convertible preferred stock, options to purchase common stock and common stock subject to repurchase related to unvested restricted stock and options early exercised are considered to be potentially dilutive securities. Basic and diluted net loss per share is presented in conformity with the two-class method

required for participating securities as the convertible preferred stock is considered a participating security because it participates in dividends with common stock. The Company also considers the shares issued upon the early exercise of stock options subject to repurchase to be participating securities because holders of such shares have non-forfeitable dividend rights in the event a dividend is paid on common stock. The Company's participating securities do not have a contractual obligation to share in the Company's losses. As such, the net loss was attributed entirely to common stockholders. As the Company has reported a net loss for all periods presented, diluted net loss per common share is the same as basic net loss per common share for those periods, since dilutive common shares are not assumed to have been issued if their effect is anti-dilutive.

***Segments***

The Company has determined that its chief executive officer is the chief operating decision maker (CODM). The Company operates and manages the business as one reporting and one operating segment, which is the business of discovering and developing precision medicines for the benefit of patients with cancer. The Company's CODM reviews financial information on an aggregate basis for purposes of allocating resources and evaluating financial performance. All of the Company's assets are located in the United States.

***Recently adopted accounting pronouncements***

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)* (ASU 2016-02), as subsequently amended which requires an entity to recognize assets and liabilities arising from a lease for both financing (formerly referred to as capital) and operating leases (ASC 842). ASU 2016-02 also requires new qualitative and quantitative disclosures to help investors and other financial statement users better understand the amount, timing, and uncertainty of cash flows arising from leases. ASU 2016-02 was effective for the Company in its annual reporting period beginning after December 15, 2021, with early adoption permitted. The Company adopted this ASU as of January 1, 2019 using the modified retrospective approach. In addition, the standard allows for certain practical expedients in transition to ASC 842, including the package of practical expedients. The Company elected to utilize the package of practical expedients which allowed the Company to not reassess the following: (i) whether any expired or existing contracts contained leases; (ii) the lease classification for any expired or existing leases; and (iii) the treatment of initial direct costs for any existing leases. Additionally, the Company elected the hindsight practical expedient for transition under which conclusions around lease term and impairment were not reassessed. ASU 2018-01, *Land Easement Practical Expedient for Transition to Topic 840* (ASU 2018-01) is effective for the Company upon adopting ASC 842. The Company adopted this ASU as of January 1, 2019 and will not reassess whether any land easements not previously accounted for as leases under Topic 840 meet the definition of a lease.

The adoption of this standard resulted in the recognition of operating lease liabilities and right-of-use assets of $2.5 million and $1.9 million, respectively, and the derecognition of a non-current liability of $695,000 and a current asset of $122,000, on the Company's consolidated balance sheet at adoption as of January 1, 2019.

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows, Restricted Cash* (ASU 2016-18). This ASU requires changes in restricted cash during the period to be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. If cash, cash equivalents and restricted cash are presented in more than one line item on the balance sheet, the new guidance requires a reconciliation of the total in the statement of cash flows to the related captions in the balance sheet. The Company elected to adopt ASU 2016-18 on January 1, 2019 and has reflected the adoption in its consolidated financial statements. A reconciliation of the cash, cash equivalents, and restricted cash

reported within the consolidated balance sheets that sum to the total of the same amounts shown in the statement of cash flows is as follows (in thousands):

| | December 31, | | March 31, | |
|---|---|---|---|---|
| | 2019 | 2020 | 2020 | 2021 |
| | | | (unaudited) | |
| Cash and cash equivalents | $29,583 | $65,376 | $25,455 | $169,989 |
| Restricted cash | — | 312 | — | 408 |
| Total cash, cash equivalents and restricted cash as shown on the consolidated statements of cash flows | $29,583 | $65,688 | $25,455 | $170,397 |

In August 2018, the FASB issued ASU 2018-13, *Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*. The primary focus of the standard is to improve the effectiveness of the disclosure requirements for fair value measurements. The Company adopted this guidance on January 1, 2020, with no material impact on its consolidated financial statements or related disclosures.

In December 2019, the FASB issued ASU 2019-12*, Income Taxes (Topic 740)* (ASU 2019-12), which is intended to simplify the accounting for income taxes. The most significant impact of ASU 2019-12 is its removal of the exception to the incremental approach for intraperiod tax allocation when there is a loss from continuing operations. As a result of this change, the Company expects to experience a reduction in income statement volatility primarily due to the implications of this guidance on the accounting for unrealized gains and losses on investment securities classified as available-for-sale. The guidance is effective for annual periods beginning after December 15, 2020. Early adoption is permitted. Effective January 1, 2019, the Company adopted ASU 2019-12 and the adoption had an immaterial impact on its consolidated financial statements and related disclosures.

In August 2018, the FASB issued ASU 2018-15, Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract (ASU 2018-15). The new standard will align the requirements for capitalizing implementation costs for hosting arrangements (services) with costs for internal-use software (assets). As a result, certain implementation costs incurred in hosting arrangements will be deferred and amortized. The Company adopted ASU 2018-15 on January 1, 2021, and the adoption had an immaterial impact on its consolidated financial statements and related disclosures.

***Recently issued accounting pronouncements not yet adopted***

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies that the Company adopts as of the specified effective date. The Company qualifies as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012 and has elected not to "opt out" of the extended transition related to complying with new or revised accounting standards, which means that when a standard is issued or revised and it has different application dates for public and nonpublic companies, the Company can adopt the new or revised standard at the time nonpublic companies adopt the new or revised standard and can do so until such time that the Company either (i) irrevocably elects to "opt out" of such extended transition period or (ii) no longer qualifies as an emerging growth company.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* (ASU 2016-13) and also issued subsequent amendments to the initial guidance: ASU 2018-19, ASU 2019-04, ASU 2019-05, and ASU 2019-11. The standard requires that credit losses be reported using an expected losses model rather than the incurred losses model that is currently used, and it establishes additional disclosure requirements related to credit risks. For available-for-sale debt securities with

expected credit losses, this standard now requires allowances to be recorded instead of reducing the amortized cost of the investment. This guidance was originally effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, and early adoption was permitted. In November 2019, the FASB subsequently issued ASU 2019-10, *Financial Instruments—Credit Losses (Topic 326), Derivatives and Hedging (Topic 815), and Leases (Topic 842): Effective Dates*, whereby the effective date of this standard for smaller reporting companies was deferred to fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, and early adoption is still permitted. The Company is currently evaluating the potential impact ASU 2016-13, and related updates, will have on its consolidated financial statements and related disclosures upon adoption.

In August 2020, the FASB issued ASU 2020-06, *Debt: Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40)* (ASU 2020-06), which simplifies the accounting for convertible instruments and contracts in an entity's own equity. This guidance is effective for the Company in its annual reporting period beginning after December 15, 2023, including interim periods within that reporting period, with early adoption permitted only as of annual reporting periods beginning after December 15, 2020. The Company is currently assessing the impact this standard will have on its consolidated financial statements and related disclosures upon adoption.

## 3. Fair value measurements

The following tables summarize the Company's financial assets and liabilities measured at fair value on a recurring basis and their respective input levels based on the fair value hierarchy (in thousands):

| | | Fair value measurements as of December 31, 2019 using | | |
|---|---|---|---|---|
| | December 31, 2019 | Quoted prices in active markets for identical assets (level 1) | Significant other observable inputs (level 2) | Significant unobservable inputs (level 3) |
| **Assets:** | | | | |
| Money market funds[1] | $ 28,478 | $ 28,478 | $ — | $ — |
| Corporate debt securities[1] | 700 | — | 700 | — |
| US treasury securities[2] | 5,248 | 5,248 | — | — |
| Corporate debt securities[2] | 12,348 | — | 12,348 | — |
| Commercial paper[2] | 3,190 | — | 3,190 | — |
| Total fair value of assets | $ 49,964 | $ 33,726 | $ 16,238 | $ — |

(1) Included as cash and cash equivalents on the consolidated balance sheets.

(2) Included as short-term investments on the consolidated balance sheets.

As of December 31, 2019, there were no financial liabilities measured at fair value on a recurring basis.

| | December 31, 2020 | Fair value measurements as of December 31, 2020 using: Quoted prices in active markets for identical assets (level 1) | Significant other observable inputs (level 2) | Significant unobservable inputs (level 3) |
|---|---|---|---|---|
| **Assets:** | | | | |
| Money market funds[1] | $ 57,238 | $ 57,238 | $ — | $ — |
| Commercial paper[1] | 900 | — | 900 | — |
| US treasury securities[2] | 38,492 | 38,492 | — | — |
| Corporate debt securities[2] | 3,793 | — | 3,793 | — |
| Commercial paper[2] | 11,040 | — | 11,040 | — |
| Total fair value of assets | $ 111,463 | $ 95,730 | $ 15,733 | $ — |
| **Liabilities:** | | | | |
| Preferred stock purchase right liability | 1,615 | — | — | 1,615 |
| Total fair value of liabilities | $ 1,615 | $ — | $ — | $ 1,615 |

(1) Included as cash and cash equivalents on the consolidated balance sheets.

(2) Included as short-term investments on the consolidated balance sheets.

| | March 31, 2021 | Fair value measurements as of March 31, 2021 using: Quoted prices in active markets for identical assets (level 1) | Significant other observable inputs (level 2) | Significant unobservable inputs (level 3) |
|---|---|---|---|---|
| | | (unaudited) | | |
| **Assets:** | | | | |
| Money market funds[1] | $ 160,127 | $ 160,127 | $ — | $ — |
| US treasury securities[2] | 15,000 | 15,000 | — | — |
| US government securities[2] | 5,075 | — | 5,075 | — |
| Corporate debt securities[2] | 2,872 | — | 2,872 | — |
| Commercial paper[2] | 17,881 | — | 17,881 | — |
| Supranational debt securities[2] | 1,523 | — | 1,523 | — |
| US government securities[3] | 5,000 | — | 5,000 | — |
| Total fair value of assets | $ 207,478 | $ 175,127 | $ 32,351 | $ — |

(1) Included as cash and cash equivalents on the consolidated balance sheets.

(2) Included as short-term investments on the consolidated balance sheets.

(3) Included as long-term investments on the consolidated balance sheets.

As of March 31, 2021 (unaudited), there were no financial liabilities measured at fair value on a recurring basis.

The carrying amounts of the Company's financial instruments, including cash, prepaid and other current assets, accounts payable, and accrued expenses and other current liabilities, approximate fair value due to their short maturities. None of the Company's non-financial assets or liabilities are recorded at fair value on a non-recurring basis. No transfers between levels have occurred during the periods presented. There are uncertainties on the fair value measurement of the instrument classified under Level 3 due to the use of unobservable inputs and interrelationships between these unobservable inputs, which could result in higher or lower fair value measurements.

Cash equivalents consist of money market funds, commercial paper and corporate debt securities, short-term investments consist of US treasury and government securities, corporate debt securities, commercial paper and supranational debt securities, and long-term investments consist of US government securities. The Company obtains pricing information from its investment manager and generally determines the fair value of investment securities using standard observable inputs, including reported trades, broker/dealer quotes, and bid and/or offers.

***Preferred stock purchase right liability***

As of December 31, 2020, the quantitative elements associated with the Company's Level 3 inputs impacting the fair value measurement of the preferred stock purchase right liability include the fair value per share of the underlying Series B-1 Preferred Stock, the expected term of the purchase right liability, risk-free interest rate, expected dividend yield and expected volatility of the price of the underlying preferred stock. The most significant assumption in the Black-Scholes option-pricing model impacting the fair value of the preferred stock purchase right liability was the fair value of the Company's convertible preferred stock as of each measurement date. The Company determined the fair value per share of the underlying preferred stock by taking into consideration its most recent sales of its convertible preferred stock as well as additional factors that the Company deemed relevant. The Company lacks company-specific historical and implied volatility information of its stock. Therefore, it estimated its expected preferred stock volatility based on the historical volatility of publicly traded peer companies for a term equal to the expected term of the purchase right liability. The risk-free interest rate was determined by reference to the US Treasury yield curve for time periods approximately equal to the expected term of the purchase right liability. The Company estimated a 0% dividend yield based on the expected dividend yield and the fact that the Company never paid or declared dividends. The change in fair value of the purchase right liability was a gain of $7.4 million for the year ended December 31, 2020, included in other income (expense) within the consolidated statements of operations and comprehensive loss. Upon the issuance of the shares of the Company's Series B-2 convertible preferred stock in January 2021, the purchase right liability was revalued with the gain of $1.6 million recorded in change in fair value of the purchase right liability for the three months ended March 31, 2021 (unaudited) within the consolidated statements of operations and comprehensive loss. Significant changes in the assumptions could have a material impact on the value of the preferred stock purchase right liability. The assumptions used in the Black-Scholes option pricing model to determine the fair value of the preferred stock purchase right liability at December 31, 2020 and settlement date were as follows:

| | December 31, 2020 | Settlement Date (unaudited) |
|---|---|---|
| Fair value of underlying preferred stock | $ 6.11 | $ 6.11 |
| Risk-free interest rate | 0.08% | 0.07% |
| Expected volatility | 71.8% | 74.4% |
| Expected term (in years) | 0.08 | 0.00 |
| Expected dividend yield | —% | —% |

The following table summarizes the activity of the financial instrument valued using Level 3 inputs (in thousands):

| | |
|---|---|
| Balance as of January 1, 2020 | $ — |
| Issuance of preferred stock purchase right liability | 8,973 |
| Change in fair value | (7,358) |
| Balance as of December 31, 2020 | $ 1,615 |
| Change in fair value (unaudited) | (1,615) |
| Balance as of March 31, 2021 (unaudited) | $ — |

## 4. Investments

The following tables summarize the Company's investments accounted for as available-for-sale securities (in thousands, except years):

| | | | | | December 31, 2019 |
|---|---|---|---|---|---|
| | Maturity (in years) | Amortized cost | Unrealized losses | Unrealized gains | Estimated fair value |
| US treasury securities | 1 or less | $ 5,239 | $ — | $ 9 | $ 5,248 |
| Corporate debt securities | 1 or less | 12,349 | (4) | 3 | 12,348 |
| Commercial paper | 1 or less | 3,187 | — | 3 | 3,190 |
| Total | | $ 20,775 | $ (4) | $ 15 | $ 20,786 |

| | | | | | December 31, 2020 |
|---|---|---|---|---|---|
| | Maturity (in years) | Amortized cost | Unrealized losses | Unrealized gains | Estimated fair value |
| US treasury securities | 1 or less | $ 38,489 | $ — | $ 3 | $ 38,492 |
| Corporate debt securities | 1 or less | 3,794 | (1) | — | 3,793 |
| Commercial paper | 1 or less | 11,040 | — | — | 11,040 |
| Total | | $ 53,323 | $ (1) | $ 3 | $ 53,325 |

| | | | | | March 31, 2021 |
|---|---|---|---|---|---|
| | Maturity (in years) | Amortized cost | Unrealized losses | Unrealized gains | Estimated fair value |
| | | | (unaudited) | | |
| US treasury securities | 1 or less | $ 14,997 | $ — | $ 3 | $ 15,000 |
| US government securities | 1 or less | 5,075 | — | — | 5,075 |
| Corporate debt securities | 1 or less | 2,873 | (1) | — | 2,872 |
| Commercial paper | 1 or less | 17,881 | — | — | 17,881 |
| Supranational debt securities | 1 or less | 1,523 | — | — | 1,523 |
| US government securities | 1-2 | 5,001 | (1) | — | 5,000 |
| Total | | $ 47,350 | $ (2) | $ 3 | $ 47,351 |

As of December 31, 2019, there were ten available-for-sale securities with an estimated fair value of $9.0 million in gross unrealized loss positions, compared to six available-for-sale securities with an estimated fair value of $15.8 million which were in gross unrealized loss positions as of December 31, 2020. As of March 31, 2021 (unaudited), there were five available-for-sale securities with an estimated fair value of $12.9 million in gross unrealized loss positions. None had been in such position for greater than 12 months. Based on the

Company's review of its investments, the Company believes that the unrealized losses were not other-than-temporary as of December 31, 2019 and 2020 and March 31, 2021 (unaudited).

## 5. Property and equipment, net

Property and equipment, net consisted of the following (in thousands):

| | December 31, | | March 31, |
|---|---|---|---|
| | 2019 | 2020 | 2021 |
| | | | (unaudited) |
| Construction in process | $ 169 | $ — | $ — |
| Leasehold improvements | 510 | 795 | 795 |
| Laboratory equipment | 784 | 1,380 | 1,417 |
| Furniture and fixtures | 130 | 165 | 165 |
| Office equipment | 29 | 61 | 61 |
| Software | — | 70 | 70 |
| Computer equipment | 251 | 278 | 289 |
| Property and equipment | 1,873 | 2,749 | 2,797 |
| Less accumulated depreciation and amortization | (371) | (902) | (1,051) |
| Property and equipment, net | $1,502 | $1,847 | $ 1,746 |

Depreciation and amortization expense related to property and equipment was $310,000, $540,000, $121,000 and $149,000 for the years ended December 31, 2019 and 2020 and for the three months ended March 31, 2020 and 2021 (unaudited), respectively.

## 6. Accrued expenses and other current liabilities

Accrued expenses and other current liabilities consisted of the following (in thousands):

| | December 31, | | March 31, |
|---|---|---|---|
| | 2019 | 2020 | 2021 |
| | | | (unaudited) |
| Accrued research and development expenses | $380 | $ 6,649 | $ 3,423 |
| Accrued compensation | 196 | 2,416 | 1,581 |
| Unvested early exercised stock option liability | — | 2,526 | 3,402 |
| Accrued legal | 20 | 194 | 511 |
| Other accruals | 47 | 140 | 357 |
| Total | $643 | $11,925 | $ 9,274 |

## 7. Asset acquisitions

The following purchased assets were accounted for as asset acquisitions as substantially all of the fair value of the assets acquired were concentrated in a group of similar assets, and the acquired assets did not have outputs or employees. Because the assets had not yet received regulatory approval, the fair value attributable to these assets was recorded as in-process research and development expenses in the Company's consolidated statements of operations and comprehensive loss for the year ended December 31, 2020, and for the three months ended March 31, 2021.

***Asana BioSciences, LLC***

In November 2020, the Company entered into an agreement and plan of merger with Asana and ASN Product Development, Inc. (the Asana Merger Agreement), pursuant to which ASN became its wholly-owned subsidiary. Asana and ASN had previously entered into a license agreement, which was amended and restated prior to the closing of the merger transaction (the Asana License Agreement, and collectively with the Asana Merger Agreement, the Asana Agreements), pursuant to which ASN acquired an exclusive, worldwide license to certain intellectual property rights relating to inhibitors of ERK1 and ERK2 owned or controlled by Asana to develop and commercialize ERAS-007 and certain other related compounds for all applications. The Company has the right to sublicense (through multiple tiers) the licensed rights under the Asana Agreements, subject to certain conditions. The foregoing license is subject to Asana's non-exclusive right to practice the licensed rights to research and conduct preclinical pharmacology activities with a specified combination of compounds, subject to certain specified conditions. Pursuant to the Asana License Agreement, neither Asana nor ASN can directly or indirectly exploit certain classes of competing products, subject to specified exceptions. In addition, the Company is required to use commercially reasonable efforts to develop and obtain regulatory approval for ERAS-007 in the United States, at least one major market country in Europe, and either China or Japan.

Under the Asana Merger Agreement, the Company made an upfront payment of $20.0 million and issued 4,000,000 shares of its Series B-2 convertible preferred stock to Asana at a value of $7.50 per share or a total fair value of $30.0 million. The Company is obligated to make future development and regulatory milestone cash payments for a licensed product in an amount of up to $90.0 million. Additionally, upon achieving a development milestone related to demonstration of successful proof-of-concept in a clinical trial, the Company will also be required to issue 4,666,667 shares of its common stock to Asana. The Company is not obligated to pay royalties on the net sales of licensed products. The Company recorded IPR&D expense of $50.0 million in connection with the asset acquisition. As of December 31, 2020 and March 31, 2021 (unaudited), no milestones had been accrued as the underlying contingencies had not yet been resolved.

Upon the Company's payment to Asana of all merger consideration, including upfront cash and equity payments, the equity payment related to the proof-of-concept development milestone, and all other development milestone payments, with the exception of a specific milestone that does not need to be achieved at such time and will remain subject to payment in the event that such milestone is achieved at a later time, all licensed rights will become fully paid-up, perpetual, and irrevocable. The Asana License Agreement may be terminated by either Asana or the Company in the event of an uncured material breach by the other party. Asana also has the right to terminate the Asana License Agreement if the Company fails to engage in material activities in support of clinical development and commercialization of ERAS-007 for a period of 12 consecutive months, excluding reasons outside of its reasonable control and subject to certain limitations. However, Asana's right to terminate the Asana License Agreement for any reason ends once the Company has paid to Asana all merger consideration, or if Asana's equity interest in the Company becomes publicly traded and exceeds a certain threshold value. The Company may terminate the Asana License Agreement at any time upon the provision of prior written notice to Asana.

***Emerge Life Sciences, Pte. Ltd. (unaudited)***

In March 2021, the Company entered into an asset purchase agreement (ELS Purchase Agreement) with Emerge Life Sciences, Pte. Ltd. (ELS) wherein it purchased all rights, title, and interest (including all patent and other intellectual property rights) to EGFR antibodies directed against the EGFR domain II (EGFR-D2) and domain III (EGFR-D3) as well as a bispecific antibody where one arm is directed against EGFR-D2 and the other is directed against EGFR-D3 (the Antibodies). Under the terms of the ELS Purchase Agreement, the Company made an upfront payment of $2.0 million and issued to ELS 600,000 shares of the Company's common stock at a value

of $2.80 per share or a total fair value of $1.7 million. Under the ELS Purchase Agreement, ELS is committed to performing certain studies on the applicable antibodies to assist in development activities, the costs of which shall be mutually agreed upon and for which the Company will be responsible. The Company recorded IPR&D expense of $3.7 million in connection with the asset acquisition.

Pursuant to the ELS Purchase Agreement, at any time between 12 months and 36 months after the effective date of the ELS Purchase Agreement, if the Company reasonably determines that none of the Antibodies should be taken into human clinical trials due to safety, efficacy or CMC issues, then the Company has the option to select another antibody developed and solely owned by ELS that is not the subject of a license, collaboration, or option to a third party (the Option). If the Company elects to exercise the Option, then ELS will provide to the Company a list of all available antibodies that meet the aforementioned requirements, and the Company has the right to select one antibody from the list. Upon the Company's selection of an antibody, ELS will assign it all rights, title and interest to such antibody (including patent and other intellectual property rights) subject to any pre-existing obligations or restrictions. In the event that the Company wishes to have ELS conduct any studies on such optioned antibody, then after mutual agreement as to the scope of the studies, the Company will be responsible for the cost for such studies.

## 8. License agreements

***NiKang Therapeutics, Inc.***

In February 2020, the Company entered into a license agreement (the NiKang Agreement) with NiKang Therapeutics, Inc. (NiKang) under which the Company was granted an exclusive, worldwide license to certain intellectual property rights owned or controlled by NiKang related to certain SHP2 inhibitors to develop and commercialize ERAS-601 and certain other related compounds for all applications. The Company has the right to sublicense (through multiple tiers) its rights under the NiKang Agreement, subject to certain conditions, and is required to use commercially reasonable efforts to develop and commercialize licensed products. The parties are obligated to negotiate in good faith for a certain period of time to grant NiKang the exclusive commercial distribution rights in greater China once a licensed product reaches a certain development stage.

Under the NiKang Agreement, the Company made an upfront payment of $5.0 million to NiKang and reimbursed NiKang $0.4 million for certain initial manufacturing costs. In addition, the Company paid $7.0 million in April 2020 related to the publication of a US patent application that covered the composition of matter of ERAS-601. The Company is also obligated to pay (i) development and regulatory milestone payments in an aggregate amount of up to $16.0 million for the first licensed product and $12.0 million for a second licensed product, and (ii) commercial milestone payments in an aggregate amount of up to $157.0 million for the first licensed product and $151.0 million for a second licensed product. The Company is also obligated to: (i) pay tiered royalties on net sales of all licensed products in the mid-single digit percentages, subject to certain reductions; and (ii) equally split all net sublicensing revenues earned under sublicense agreements that the Company enters into with any third party before commencement of the first Phase I clinical trial for a licensed product. As of December 31, 2020, the Company had accrued $4.0 million related to a development milestone. The Company recorded IPR&D expense of $16.0 million during the year ended December 31, 2020 related to the upfront payment and milestones. The Company recorded $12.0 million and $0 during the three months ended March 31, 2020 and 2021 (unaudited), respectively, related to the upfront payment and milestones.

The NiKang Agreement will expire upon the last to expire royalty term, which is determined on a licensed product-by-licensed product and country-by-country basis, and is the later of (i) ten years from the date of first commercial sale, (ii) the last to expire valid claim within the licensed patent rights covering such licensed product, or (iii) the expiration of all regulatory exclusivity for the licensed product in such country. Upon

expiration of the NiKang Agreement, on a licensed product-by-licensed product and country-by-country basis, the Company will have a fully paid-up, non-exclusive license to conduct research and to develop and commercialize the licensed products.

The NiKang Agreement may be terminated in its entirety by NiKang in the event of the Company's uncured material breach, which includes its failure to use commercially reasonable efforts to satisfy certain specified clinical development diligence milestones. In addition, NiKang may terminate if the Company, directly or indirectly, commences a legal action challenging the validity or enforceability of any licensed patents. Further, if the Company acquires more than 50% of the equity or assets of a company that owns a competing small molecule that is designed to prevent the same target as set forth in the NiKang Agreement from switching to an enzymatically active state, then the Company must either divest such competing product or terminate the NiKang Agreement. The Company may terminate the NiKang Agreement at any time upon the provision of prior written notice to NiKang. Upon termination of the NiKang Agreement for any reason, all rights and licenses granted to the Company, as well as any sublicenses that the Company granted thereunder, will terminate. In addition, upon any termination (but not expiration) of the NiKang Agreement and upon NiKang's request, the parties are obligated to meet and negotiate in good faith the terms of a license from the Company to NiKang to allow NiKang's continued development, manufacture, and commercialization of the licensed products.

***Katmai Pharmaceuticals, Inc.***

In March 2020, the Company entered into a license agreement (the Katmai Agreement) with Katmai Pharmaceuticals, Inc. (Katmai) under which the Company was granted an exclusive, worldwide, royalty-bearing license to certain patent rights and know-how controlled by Katmai related to the development of small molecule therapeutic and diagnostic products that modulate EGFR and enable the identification, diagnosis, selection, treatment, and/or monitoring of patients for neuro-oncological applications to develop, manufacture, use, and commercialize ERAS-801 and certain other related compounds in all fields of use. The Company has the right to sublicense (through multiple tiers) its rights under the Katmai Agreement, subject to certain limitations and conditions, and is required to use commercially reasonable efforts to develop, manufacture, and commercialize licensed products and to meet certain specified development and launch milestones by certain dates. The Company is obligated to use commercially reasonable efforts to develop the licensed products first for use within the neuro-oncology field before expanding its development efforts to include other indications in the oncology field. Following the first achievement of a clinical proof-of-concept for any indication, the Company has the right to submit a non-binding offer to Katmai for (i) the purchase of all licensed patent rights, know-how, and other assets owned by Katmai that are necessary or useful for the exploitation of the licensed products or (ii) for the purchase of Katmai. Pursuant to the Katmai Agreement, neither Katmai nor the Company can directly or indirectly exploit certain specified classes of competing products.

The license granted under the Katmai Agreement is subject to The Regents of the University of California's reserved right to (i) use the licensed patent rights and know-how for educational and non-commercial research purposes, and to publish results arising therefrom, and (ii) grant licenses to the licensed know-how to third parties without notice because the licensed know-how is non-exclusively licensed to Katmai by The Regents of the University of California. Further, the license granted under the Katmai Agreement is subject to the rights of the United States government under the Bayh-Dole Act, including (i) a non-exclusive, non-transferable, irrevocable, paid-up license to practice or have practiced the invention claimed by the licensed patent rights throughout the world and (ii) the obligation that any licensed products used or sold in the United States be manufactured substantially in the United States.

Under the Katmai Agreement, the Company made an upfront payment of $5.7 million and Katmai agreed to purchase shares of the Company's Series B-1 convertible preferred stock and Series B-2 convertible preferred

stock having an aggregate value of $2.7 million. In April 2020, Katmai purchased 356,000 shares of the Company's Series B-1 convertible preferred stock for $1.8 million, and in January 2021, Katmai purchased 118,666 shares of the Company's Series B-2 convertible preferred stock for $0.9 million. The Company is obligated to make future development and regulatory milestone payments of up to $26.0 million and commercial milestone payments of up to $101.0 million. The Company is also obligated to pay tiered royalties on net sales of each licensed product, at rates ranging from the mid- to high-single digit percentages, subject to a minimum annual royalty payment in the low six figures and certain permitted deductions. The Company recorded IPR&D expense of $5.7 million in connection with the upfront payment made during the year ended December 31, 2020 and the three months ended March 31, 2020 (unaudited). No IPR&D expense was recorded for the three months ended March 31, 2021 (unaudited).

The Company's royalty obligations and the Katmai Agreement will expire, on a licensed product-by-licensed product and country-by-country basis, on the earlier of (i) the ten-year anniversary of the expiration of all valid claims included in the licensed patents covering the composition of matter or method of use of such licensed product in such country or (ii) the twentieth anniversary of the first commercial sale of such licensed product in such country. Upon the expiration of the Katmai Agreement, the Company will have a fully paid-up and irrevocable license.

The Katmai Agreement may be terminated in its entirety by either party (i) in the event of an uncured material breach by the other party or (ii) in the event the other party becomes subject to specified bankruptcy, insolvency, or similar circumstances. Provided that the Company is in full compliance with the Katmai Agreement, the Company may terminate the Katmai Agreement upon written notice to Katmai. Upon termination of the Katmai Agreement for any reason, all rights and licenses granted to the Company thereunder will terminate. Upon termination of the Katmai Agreement, the Company is obligated, among other things, to (i) grant an exclusive license to Katmai under all of the Company's right, title and interest in all inventions and know-how developed under the Katmai Agreement existing at the time of termination that are specific to the licensed compounds or products, including without limitation all data and results related to Katmai's exploitation and (ii) transfer to Katmai ownership and possession of all regulatory filings related to the licensed compounds and products. Unless the Katmai Agreement is terminated for the Company's material breach, the parties will negotiate in good faith the financial terms pursuant to which the foregoing actions will be conducted, provided that the Company's performance of such actions may not be conditioned upon the conduct or completion of such negotiations. If the parties are unable to agree upon such terms within the specified time period, then the parties will submit all unresolved matters for resolution by arbitration.

***LifeArc***

In April 2020, the Company entered into a license agreement with LifeArc (the LifeArc Agreement) under which the Company was granted an exclusive, worldwide license to certain materials, know-how, and intellectual property rights owned or controlled by LifeArc to develop, manufacture, use, and commercialize certain ULK inhibitors for all applications. The Company also has the right to sublicense (through multiple tiers) its rights under the LifeArc Agreement, subject to certain conditions. The foregoing license is subject to LifeArc's retained non-exclusive, irrevocable, worldwide, sublicensable (to its academic collaborators), royalty-free right to use the licensed intellectual property rights within all fields of use for LifeArc's own non-commercial, non-clinical academic research. Notwithstanding its retained rights, LifeArc will not seek to develop or undertake any other ULK1/2 therapeutic development programs either in-house or via third parties until April 2025. The Company is required to use diligent efforts to achieve certain development and regulatory milestones with respect to submission of an IND, initiation of clinical trials, submission of an NDA, and commencement of commercial sales.

Under the LifeArc Agreement, the Company was granted the license at no upfront cost and a period of three months after the effective date to conduct experiments on LifeArc's compounds. Upon completion of this initial testing period, the Company had the option to continue the license and make a one-time license payment of $75,000 to LifeArc, which payment was subsequently made. The Company is obligated to make future development milestone payments for a licensed product of up to $11.0 million and sales milestone payments of up to $50.0 million. The Company is also obligated to pay royalties on net sales of all licensed products, in the low-single digit percentages, subject to certain reductions. The Company recorded IPR&D expense of $75,000 in connection with the license fee during the year ended December 31, 2020. No IPR&D expense was recorded during the three months ended March 31, 2020 and 2021 (unaudited).

The Company's royalty obligations and the LifeArc Agreement will expire, on a licensed product-by-licensed product and country-by-country basis, on the later of (i) ten years from the date of first commercial sale, (ii) when there is no longer a valid patent claim covering such licensed product, or (iii) expiration of regulatory exclusivity for the licensed product in such country. Upon expiration of the LifeArc Agreement, all rights and licenses granted to the Company and under the LifeArc Agreement will continue on a fully paid-up basis.

The LifeArc Agreement may be terminated in its entirety by either LifeArc or the Company in (i) the event of an uncured material breach by the other party or (ii) in the event the other party becomes subject to an order by a court of competent jurisdiction for winding-up or dissolution or similar circumstances. Further, LifeArc may terminate the LifeArc Agreement by giving written notice to the Company if (i) the Company fails to comply with its diligence obligations and fails to take remedial actions, (ii) the Company fails to agree on a mechanism to cure a persistent breach, or (iii) the Company fails to provide proof of the insurance coverage as required under the LifeArc Agreement. The Company may terminate the agreement at any time upon the provision of written notice to LifeArc.

Upon termination of the LifeArc Agreement for any reason, all rights and licenses granted to the Company, as well as any sublicenses the Company granted thereunder, will terminate. In addition, upon termination of the LifeArc Agreement for any reason other than its natural expiration or termination by the Company for LifeArc's material breach, LifeArc has an option to negotiate an exclusive, worldwide, sublicensable license to commercialize any patent rights, technical and clinical data, and any development results relating to the licensed products that are owned or controlled by the Company for the purpose of developing, manufacturing and commercializing the licensed products on terms to be negotiated between the parties.

***University of California, San Francisco***

In December 2018, the Company entered into a license agreement, as amended (the UCSF Agreement), with The Regents of the University of California, San Francisco (the Regents), under which the Company was granted an exclusive, worldwide, royalty-bearing license under certain patent rights claiming novel covalent inhibitors of GTP- and GDP-bound RAS for the development and commercialization of products covered by such patent rights for the prevention, treatment and amelioration of human cancers and other diseases and conditions. The UCSF Agreement was amended in May 2021. The Company has the right to sublicense (through multiple tiers) its rights under the UCSF Agreement, subject to certain conditions. The foregoing license is subject to various retained rights and restrictions, including (i) the Regents' reserved right to make, use and practice the licensed patent rights and any technology relating thereto for educational and research purposes, (ii) Howard Hughes Medical Institute's non-exclusive, fully paid-up, irrevocable worldwide license to use the licensed patent rights for research purposes, (iii) Howard Hughes Medical Institute's statement of policy on research tools, and (iv) the obligations to the US government under the Bayh-Dole Act, including the obligation to report on the utilization of the invention covered by the licensed patent rights and a non-exclusive, non-transferable, irrevocable, paid-up license to practice or have practiced such invention throughout the world. The Company is required to

use diligent efforts to proceed with the development and commercialization of licensed products including by achieving certain milestone events within the specified time periods.

Under the UCSF Agreement, the Company made upfront payments of $50,000 to the Regents and pays the Regents an annual license maintenance fee during the term of the license, but such fee will not be due on any anniversary if, on that date, the Company is making royalty payments to the Regents. The Company is obligated to make future development and regulatory milestone payments of up to $6.4 million and a sales milestone payment of $2.0 million for either of the first two licensed products. The Company is also obligated to pay royalties on net sales of all licensed products in the low-single digit percentages, subject to a minimum annual royalty payment in the low six figures, commencing on the year of the first sale of a licensed product and continuing, on a licensed product-by-licensed product and country-by-country basis, until there are no valid claims of the licensed patent rights covering the licensed product in such country. Additionally, the Company is obligated to pay tiered sublicensing fees ranging from low double digit percentages up to 30% on certain fees the Company receives from any sublicense that the Company grants, depending on the stage of development of a licensed product when such sublicense is granted. Prior to the execution of the amendment, the Company was obligated to make a cash payment to the Regents in the event of the Company's initial public offering, a change of control transaction or a reverse merger (the Corporate Milestone). In the amendment, the amount of the cash payment payable upon the Company's achievement of a Corporate Milestone was reduced and the Company agreed to issue the Regents 1,133,935 shares of the Company's common stock, which issuance is not contingent upon the achievement of a Corporate Milestone and occurred in May 2021. Under this agreement, the Company has recorded research and development expense of $623,000 and $98,000 during the years ended December 31, 2019 and 2020, respectively, and $32,000 and $29,000 during the three months ended March 31, 2020 and 2021 (unaudited), respectively.

The UCSF Agreement will expire upon the expiration of the last of the licensed patent rights. The UCSF Agreement may be terminated in its entirety by the Regents (i) for the Company's uncured breach; (ii) for the Company's bankruptcy; or (iii) if the Company challenges, directly or indirectly, the validity or enforceability of any licensed patents. Further, if the Company fails to satisfy any diligence milestones, the Regents has the right and option to either terminate the UCSF Agreement or modify the exclusive license granted thereunder to a non-exclusive license. The Company may terminate the UCSF Agreement in its entirety or on a country-by-country basis at any time upon the provision of written notice to the Regents. Upon termination of the UCSF Agreement for any reason, all rights and licenses granted to the Company thereunder will terminate.

## 9. Stockholders' deficit

Under its Amended and Restated Articles of Incorporation dated April 15, 2020, the Company is authorized to issue 147,027,681 shares of its common stock, par value of $0.0001 per share. In February 2021, the Company's Board of Directors increased the authorized number of shares of its common stock to 156,000,000 shares. The Company is authorized to issue 97,622,409 shares of its convertible preferred stock, par value of $0.0001 per share, of which 38,103,681 shares are designated as Series A convertible preferred stock, 28,741,400 shares are designated as Series B-1 convertible preferred stock and 30,777,328 shares are designated as Series B-2 convertible preferred stock.

***Convertible preferred stock***

In 2018, the Company issued 27,953,681 shares of its Series A convertible preferred stock at $1.667 per share. The Company received proceeds of approximately $46.5 million, net of issuance costs.

In 2019, the Company issued 10,150,000 shares of its Series A convertible preferred stock at $1.667 per share. The Company received proceeds of approximately $16.9 million, net of issuance costs.

In April 2020, the Company entered into a Series B convertible preferred stock purchase agreement (the Series B Agreement) under which it issued 27,481,001 shares of its Series B-1 convertible preferred stock at various closing

dates in 2020, for cash, at a price of $5.00 per share, for net proceeds of $137.0 million (the Series B-1 Closing). The Series B Agreement contained provisions that potentially obligates the Company to issue 13,175,191 shares of Series B-2 convertible preferred stock at $7.50 per share in an additional closing to certain Series B-1 Closing purchasers, upon the achievement of certain milestones as defined in the Series B Agreement, which purchase right terminates on September 30, 2022 or at certain specified events, including an initial public offering of the Company, if any (the Series B-2 Closing). In the event that a Series B-1 Closing purchaser fails to purchase all of its required shares in the subsequent Series B-2 Closing, each of the Series B-1 convertible preferred shares held by such purchaser will automatically be converted into one-tenth of a share of the Company's common stock.

The Company determined its obligation to issue additional shares of the its Series B-2 convertible preferred stock in the Series B-1 Closing represented a freestanding financial instrument that required liability accounting. This freestanding preferred stock purchase right liability for the Series B-2 Closing was recorded at fair value and is remeasured at each reporting period. As of the Series B-1 Closing, the estimated fair value of the preferred stock purchase right liability was $9.0 million. The Company records any changes in the fair value of the Series B-2 convertible preferred stock purchase right liability as changes in the fair value of convertible preferred stock purchase right liability in the accompanying consolidated statements of operations and comprehensive loss, and recorded a gain of $7.4 million for the year ended December 31, 2020. To satisfy its obligation, in January 2021, the Company sold 13,175,191 shares of its Series B-2 convertible preferred stock and an additional 2,756,581 shares of its Series B-2 convertible preferred stock at a price of $7.50 per share and received aggregate net proceeds of $119.4 million.

Also in 2020, the Company issued 4,000,000 shares of its Series B-2 convertible preferred stock at $7.50 per share in connection with an asset acquisition (see Note 7).

Convertible preferred stock consisted of the following (in thousands, except share data):

| | | | December 31, 2019 | | |
|---|---|---|---|---|---|
| | Preferred shares authorized | Preferred shares issued and outstanding | Carrying value | Liquidation preference | Common stock issuable upon conversion |
| Series A preferred stock | 45,135,500 | 38,103,681 | $63,403 | $ 63,519 | 38,103,681 |
| Total | 45,135,500 | 38,103,681 | $63,403 | $ 63,519 | 38,103,681 |

| | | | December 31, 2020 | | |
|---|---|---|---|---|---|
| | Preferred shares authorized | Preferred shares issued and outstanding | Carrying value | Liquidation preference | Common stock issuable upon conversion |
| Series A preferred stock | 38,103,681 | 38,103,681 | $ 63,403 | $ 63,519 | 38,103,681 |
| Series B-1 preferred stock | 28,741,400 | 27,481,001 | 128,002 | 137,405 | 27,481,001 |
| Series B-2 preferred stock | 30,777,328 | 4,000,000 | 30,000 | 30,000 | 4,000,000 |
| Total | 97,622,409 | 69,584,682 | $221,405 | $ 230,924 | 69,584,682 |

| | | | March 31, 2021 | | |
|---|---|---|---|---|---|
| | Preferred shares authorized | Preferred shares issued and outstanding | Carrying value | Liquidation preference | Common stock issuable upon conversion |
| | | | (unaudited) | | |
| Series A preferred stock | 38,103,681 | 38,103,681 | $ 63,403 | $ 63,519 | 38,103,681 |
| Series B-1 preferred stock | 28,741,000 | 27,481,001 | 128,002 | 137,405 | 27,481,001 |
| Series B-2 preferred stock | 30,777,328 | 19,931,772 | 149,393 | 149,488 | 19,931,772 |
| Total | 97,622,409 | 85,516,454 | $340,798 | $ 350,412 | 85,516,454 |

The holders of the Company's Series A, Series B-1, and Series B-2 convertible preferred stock (collectively, Preferred Stock) have the following rights, preferences and privileges:

*Dividends:* Holders of Preferred Stock are not entitled to receive any dividends except to the extent that dividends are paid on the Company's common stock. If dividends are paid on shares of common stock, holders of Preferred Stock are entitled to participate in such dividends on an as-converted basis.

*Liquidation:* Upon the liquidation, dissolution, or winding up of the Company, each holder of Preferred Stock is entitled to receive, prior and in preference to holders of common stock, on a pro rata basis an amount equal to the original issue price plus any declared and unpaid dividends. If the assets and funds to be distributed among the holders of Preferred Stock are insufficient to permit the payment to such holders, the entire assets and funds of the Company legally available for distribution will be distributed ratably among those holders. After payment to the holders of the Preferred Stock, the remaining legally available assets and funds of the Company will be distributed ratably to the holders of the common stock. Each holder of Preferred Stock shall be deemed to have converted such holder's shares of Preferred Stock to shares of common stock immediately prior to a liquidation event if as a result of such conversion, such holder would receive in the aggregate an amount greater than the amount that would be distributed if holder did not convert.

*Voting:* The holders of Preferred Stock are entitled to the number of votes equal to the number of shares of common stock into which such shares of Preferred Stock are then convertible (rounded up to the nearest whole share). The holders of Preferred Stock vote together with the holders of common stock and not as a separate class or series.

*Protective Provisions:* The holders of Preferred Stock have certain protective provisions whereby the Company cannot, without the consent of the majority of the Series A, Series B-1 or Series B-2 convertible preferred stock holders, increase or decrease the total respective authorized shares of Series A, Series B-1 or Series B-2 convertible preferred stock or authorize, create or issue any shares senior to the respective Series A, Series B-1 or Series B-2 convertible preferred stock.

*Conversion:* Each share of Preferred Stock is convertible, at the option of the holder, at any time into common stock, except for no share of Series B-1 convertible preferred stock is convertible into shares of common stock prior to the earlier of the (i) the consummation of the Series B-2 Closing and (ii) October 31, 2022, without the prior written consent of the holders of a majority of the outstanding shares of Series B-1 convertible preferred stock. Each share of Preferred Stock will automatically convert upon the earlier of the closing of the sale of shares of common stock in a public offering resulting in gross proceeds of at least $40.0 million (a Qualified IPO) or the consent of the majority of the outstanding shares of Preferred Stock, voting as a single class on an as converted basis. The Preferred Stock is convertible into common stock on a one-to-one basis, subject to adjustment for stock splits, stock dividends and the like. If the Company sells or issues additional shares of common stock for consideration per share less than the then existing conversion price, then the then existing conversion price shall be reduced to a price determined in accordance with the Amended and Restated Articles of Incorporation.

*Redemption:* The holders of the Company's Preferred Stock have no voluntary rights to redeem shares, except in a deemed liquidation event (sale, lease, transfer, exclusive license or other disposition of substantially all of the assets of the Company) if the Company does not effect a dissolution of the Company with the General Corporation Law of the State of Delaware within 90 days after such deemed liquidation event. In such an event, the holders of the Preferred Stock have the right to require the redemption of the Preferred Stock if the majority of the Preferred Stock holders so request. The Company then will be required to use the consideration from the deemed liquidation event to redeem all outstanding shares of Preferred Stock at an amount equal to the original issue price plus any declared but unpaid dividends.

***Common stock***

The Company had 80,000,000 and 147,027,681 shares of its common stock authorized as of December 31, 2019 and 2020, respectively. The Company had 156,000,000 shares of its common stock authorized as of March 31, 2021 (unaudited). The Company had 27,155,000 and 30,227,626 shares of its common stock issued and 24,618,854 and 26,307,835 shares of common stock outstanding as of December 31, 2019 and 2020, respectively. The Company had 31,355,165 and 27,450,062 shares of its common stock issued and outstanding as of March 31, 2021 (unaudited), respectively. As of December 31, 2019 and 2020, the fair value of common stock was $0.56 and $2.80, respectively. As of March 31, 2021 (unaudited), the fair value of common stock was $4.84.

The holder of each outstanding share of common stock is entitled to one vote on all matters submitted to a vote of the holders of common stock. Subject to the rights of the holders of any class of the Company's capital stock having any preference or priority over common stock, the holders of common stock are entitled to receive dividends that are declared by the Company's board of directors out of legally available funds. In the event of a liquidation, dissolution or winding-up, the holders of common stock are entitled to share ratably in the net assets remaining after payment of liabilities and the liquidation value of the Preferred Stock then outstanding. The common stock has no preemptive rights, conversion rights, redemption rights or sinking fund provisions, and there are no dividends in arrears or default. All shares of common stock have equal distribution, liquidation and voting rights, and have no preferences or exchange rights.

***Shares of common stock subject to repurchase***

During 2018, the Company issued 1,750,000 shares of restricted stock for cash at a price of $0.0001 per share. The restricted stock vests 25% one year from the vesting commencement date and monthly thereafter over a three-year period and is subject to repurchase by the Company in the event of any voluntary or involuntary termination of services to the Company prior to vesting. Any shares subject to repurchase by the Company are not deemed, for accounting purposes, to be outstanding until those shares vest. As of December 31, 2019 and 2020, 1,130,208 shares and 692,708 shares of common stock, respectively, were subject to repurchase by the Company. As of March 31, 2021 (unaudited), 583,333 shares of common stock were subject to repurchase by the Company. The unvested stock liability related to these awards is immaterial for all periods presented. For the years ended December 31, 2019 and 2020, 619,792 and 437,500 shares vested, respectively. For each of the three months ended March 31, 2020 and 2021 (unaudited), 109,375 shares vested.

## 10. Stock-based compensation

In July 2018, the Company adopted the 2018 Equity Incentive Plan (the Plan), which expires ten years from its effective date. The Plan provides for the grant of incentive stock options, non-statutory stock options, restricted stock awards, restricted stock unit awards, and other stock awards to employees, consultants and directors of the Company. As of December 31, 2019 and 2020, a total of 11,000,000 and 15,855,014 shares of common stock, respectively, were authorized for issuance under the Plan. As of March 31, 2021 (unaudited), a total of 25,855,014 shares of common stock were authorized for issuance under the Plan.

Options granted under the Plan are exercisable at various dates as determined upon grant and will expire no more than ten years from their date of grant. Stock options generally vest over a four-year term. The exercise price of each option shall be determined by the Company's Board of Directors based on the estimated fair value of the Company's stock on the date of the option grant. The exercise price shall not be less than 100% of the fair market value of the Company's common stock at the time the option is granted. For holders of more than 10% of the Company's total combined voting power of all classes of stock, incentive stock options may not be

granted at less than 110% of the fair market value of the Company's common stock on the date of grant and for a term that exceeds five years. Early exercise is permitted for certain grants.

***Stock options***

A summary of the Company's stock option activity under the Plan is as follows (in thousands, except share and per share data and years):

| | Shares | Weighted-average exercise price | Weighted-average remaining contractual term (in years) | Aggregate intrinsic value |
|---|---|---|---|---|
| Outstanding at December 31, 2019 | 4,674,120 | $ 0.56 | 9.72 | $ — |
| Granted | 7,544,116 | 1.02 | | |
| Exercised | (4,250,544) | 0.91 | | 141 |
| Forfeited | (117,945) | 0.56 | | |
| Outstanding at December 31, 2020 | 7,849,747 | $ 0.82 | 9.23 | $ 15,571 |
| Granted (unaudited) | 4,714,652 | 2.80 | | |
| Exercised (unaudited) | (527,539) | 2.17 | | 424 |
| Outstanding at March 31, 2021 (unaudited) | 12,036,860 | $ 1.53 | 9.31 | $ 39,793 |
| Options exercisable at December 31, 2020 | 1,354,648 | $ 0.72 | 9.02 | $ 2,818 |
| Options exercisable at March 31, 2021 (unaudited) | 1,537,901 | $ 0.94 | 8.83 | $ 5,995 |

The weighted-average grant date fair value of options granted for the years ended December 31, 2019 and 2020 and the three months ended March 31, 2020 and 2021 (unaudited) was $0.38, $0.68, $0.37 and $1.97, respectively. As of December 31, 2020, the unrecognized compensation cost related to unvested stock option grants was $5.2 million and is expected to be recognized as expense over approximately 3.56 years. As of March 31, 2021 (unaudited), the unrecognized compensation cost related to unvested stock option grants was $13.9 million and is expected to be recognized as expense over approximately 3.66 years. The aggregate fair value of stock options that vested for the years ended December 31, 2019 and 2020 and the three months ended March 31, 2020 and 2021 (unaudited) was $0, $0.7 million, $20,000 and $0.4 million, respectively.

Certain individuals were granted the ability to early exercise their stock options. The shares of common stock issued from the early exercise of unvested stock options are restricted and continue to vest in accordance with the original vesting schedule. The Company has the option to repurchase any unvested shares at the original purchase price upon any voluntary or involuntary termination. The shares purchased by the employees and non-employees pursuant to the early exercise of stock options are not deemed, for accounting purposes, to be outstanding until those shares vest. The cash received in exchange for exercised and unvested shares related to stock options granted is recorded as a liability for the early exercise of stock options on the accompanying consolidated balance sheets and will be transferred into common stock and additional paid-in capital as the shares vest. As of December 31, 2019 and 2020, there were no shares and 2,557,812 shares subject to repurchase by the Company, respectively. As of March 31, 2021 (unaudited), there were 2,755,937 shares subject to repurchase by the Company. As of December 31, 2019 and 2020 and March 31, 2021 (unaudited), the Company recorded $0, $2.5 million and $3.4 million of liabilities associated with shares issued with repurchase rights, respectively, which is recorded in accrued expenses and other current liabilities. During the years ended December 31, 2019 and 2020, the Company repurchased 0 and 969,584 unvested shares from the early

exercise of stock options for $0 and $840,000. During the three months ended March 31, 2020 and 2021 (unaudited), the Company repurchased 0 unvested shares.

In January 2019, the Company granted 300,000 options that vest based on a performance milestone. As of December 31, 2020, the milestone for the performance-based options was not probable of achievement, and therefore, no compensation expense for performance-based options has been recognized. For the three months ended March 31, 2021 (unaudited), the Company recognized $94,000 of stock-based compensation associated with the performance-based options as the performance milestone was determined to be probable as of March 31, 2021.

The assumptions used in the Black-Scholes option pricing model to determine the fair value of the employee and nonemployee stock option grants were as follows:

| | Year ended December 31, | | Three months ended March 31, | |
|---|---|---|---|---|
| | 2019 | 2020 | 2020 | 2021 |
| | | | (unaudited) | |
| Risk-free interest rate | 1.51-1.81% | 0.37-1.22% | 1.22% | 0.59-1.01% |
| Expected volatility | 73.75-75.51% | 74.72-77.81% | 74.7% | 83.4-83.9% |
| Expected term (in years) | 6.25 | 6.02-6.25 | 6.25 | 6.08 |
| Expected dividend yield | —% | —% | —% | —% |

***Restricted stock***

The Company granted 2,155,000 shares of its restricted stock in 2018, which vest 25% one year from the vesting commencement date and monthly thereafter over a three-year period. The weighted-average grant date fair value of restricted stock granted in 2018 was $0. No shares of restricted stock were granted during the years ended December 31, 2019 and 2020 and the three months ended March 31, 2020 and 2021 (unaudited). The restricted stock shares are subject to forfeiture upon the stockholders' termination of employment or service to the Company. Any shares subject to forfeiture are not deemed, for accounting purposes, to be outstanding until those shares vest. As such, the Company recognizes the measurement date fair value of the restricted stock over the vesting period as compensation expense. As of December 31, 2019 and 2020, 1,405,938 shares and 669,271 shares of common stock, respectively, were subject to forfeiture. As of March 31, 2021 (unaudited), 565,833 shares of common stock were subject to forfeiture.

The summary of the Company's restricted stock activity during the year ended December 31, 2020 and the three months ended March 31, 2021 (unaudited) is as follows:

| | Number of restricted stock shares outstanding | Weighted-average grant date fair value |
|---|---|---|
| Nonvested at December 31, 2019 | 1,405,938 | $ 0.001 |
| Vested | (528,333) | 0.001 |
| Forfeited | (208,334) | 0.001 |
| Nonvested at December 31, 2020 | 669,271 | $ 0.001 |
| Vested (unaudited) | (103,438) | $ 0.001 |
| Nonvested at March 31, 2021 (unaudited) | 565,833 | $ 0.001 |

At December 31, 2020 and March 31, 2021 (unaudited), the total unrecognized compensation related to unvested restricted stock awards granted was $0.

***Stock-based compensation expense***

The allocation of stock-based compensation for all stock awards was as follows (in thousands):

| | Year ended December 31, | | Three months ended March 31 | |
|---|---|---|---|---|
| | 2019 | 2020 | 2020 | 2021 |
| | | | | (unaudited) |
| Research and development expense | $ 53 | $ 348 | $ 69 | $ 491 |
| General and administrative expense | 69 | 449 | 36 | 304 |
| Total | $ 122 | $ 797 | $ 105 | $ 795 |

***Common stock reserved for future issuance***

Common stock reserved for future issuance consisted of the following as of December 31, 2019 and 2020 and March 31, 2021 (unaudited):

| | December 31, | | March 31, |
|---|---|---|---|
| | 2019 | 2020 | 2021 |
| | | | (unaudited) |
| Conversion of preferred stock outstanding | 38,103,681 | 69,584,682 | 85,516,454 |
| Conversion of preferred stock in future issuance (B-2) | — | 13,175,191 | — |
| Stock options issued and outstanding | 4,674,120 | 7,849,747 | 12,036,860 |
| Awards available for future grant | 4,170,880 | 2,777,641 | 8,062,989 |
| Total | 46,948,681 | 93,387,261 | 105,616,303 |

## 11. Leases

***Operating leases***

The Company has facility leases for office space under non-cancellable and cancelable operating leases with various expiration dates through 2032 and equipment under a non-cancellable operating lease with a term expiring in 2022. Operating lease cost was approximately $1.0 million and $1.3 million, including variable lease costs of $267,000 and $355,000, and short-term lease costs of $74,000 and $96,000 during the years ended December 31, 2019 and 2020, respectively. Operating lease cost was approximately $339,000 and $361,000, including variable lease costs of $98,000 and $105,000, and short-term lease costs of $19,000 and $29,000 during the three months ended March 31, 2020 and 2021 (unaudited), respectively. The Company paid $581,000 and $989,000 in cash for operating leases that were included in the operating activities section of the consolidated statements of cash flows for the years ended December 31, 2019 and 2020, respectively. The Company paid $213,000 and $268,000 in cash for operating leases that were included in the operating activities section of the consolidated statements of cash flows for the three months ended March 31, 2020 and 2021 (unaudited), respectively.

The Company has recorded an operating lease asset of $2.8 million and $2.2 million and a lease liability of $3.7 million and $3.0 million in the consolidated balance sheets as of December 31, 2019 and 2020, respectively. The weighted-average remaining lease term and the weighted-average discount rate of the Company's operating leases was 4.13 years and 7.8% at December 31, 2019 and 3.16 years and 7.8% at December 31, 2020, respectively. The weighted-average remaining lease term and the weighted-average discount rate of the Company's operating leases was 2.94 years and 7.8% at March 31, 2021 (unaudited). The weighted-average remaining lease term does not include any renewal options at the election of the Company.

The Company's lease agreements do not contain any material residual value guarantees or material restrictive covenants.

***Facility leases***

In 2018, the Company entered into a lease agreement for approximately 11,000 square feet of office space in San Diego, California which was subsequently amended resulting in a total of approximately 16,153 square feet of office space leased. The amended space is accounted for as a separate lease. The non-cancellable operating leases expire in May 2024. The Company's lease payments consist primarily of fixed rental payments for the right to use the underlying leased assets over the lease terms. The Company is responsible for operating expenses over base operating expenses as defined in the original lease agreement.

In September 2020, the Company entered into a lease agreement for 59,407 square feet of laboratory and office space in San Diego, California (2020 Lease), which represented a portion of a new facility that is under construction. The construction and design of the asset is the primary responsibility of the lessor. The Company is involved in certain aspects of construction and design for certain interior features and leasehold improvements that will be beneficial to the Company to better suit its business needs and intended purpose of the space. The lease will be accounted for as an operating lease and has a target commencement date of August 2021. The lease has an initial term of 10.5 years and includes aggregate monthly payments to the lessor of approximately $39.5 million beginning in January 2023 with a rent escalation clause, and a tenant improvement allowance of approximately $13.4 million. The lease is cancellable at the Company's request after the 84$^{th}$ month with 12 months written notice and a lump-sum cancellation payment of $1.9 million. As discussed in Note 2, the Company provided a letter of credit to the lessor for $312,000, which expires October 31, 2031.

In March 2021, the Company entered into the first amendment to the 2020 Lease to expand the rented premises by 18,421 square feet for additional consideration of $96,000 per month starting in January 2023 and to receive an additional $3.4 million tenant improvement allowance. The payment associated with the option to cancel the lease after the 84$^{th}$ month was increased to $2.5 million, and the letter of credit provided to the lessor was increased to $408,000.

Future minimum lease payments under non-cancelable operating leases with initial lease terms in excess of one year as of December 31, 2020 are as follows (in thousands):

| | |
|---|---|
| Year ending December 31, | |
| 2021 | $1,073 |
| 2022 | 969 |
| 2023 | 937 |
| 2024 | 401 |
| Total lease payments | 3,380 |
| Less: Amount representing interest | (394) |
| Lease liabilities | $2,986 |

As of December 31, 2020, the Company had commitments of $39.5 million for a cancelable operating lease of a new real estate facility that has not yet commenced, and therefore are not included in the operating lease assets or liabilities. This operating lease is expected to commence in 2021 with a lease term of 10.5 years.

## 12. Commitments and contingencies

***Litigation***

As of December 31, 2019 and 2020, and March 31, 2021 (unaudited), there was no litigation against the Company.

## 13. Income taxes

No provision for federal, state or foreign income taxes has been recorded for the years ended December 31, 2019 and 2020 other than $2,000 and $1,000, respectively, for the annual tax for C corporations paid to the state of California, and $1,000 for foreign taxes in the year ended December 31, 2020. No provision for federal, state or foreign income taxes has been recorded for the three months ended March 31, 2020 and 2021 (unaudited), other than $1,000 for the annual tax for C corporations due to the state of California in the three months ended March 31, 2020 (unaudited).

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities as of December 31, 2019 and 2020 were as follows (in thousands):

| | December 31, | |
|---|---|---|
| | 2019 | 2020 |
| Deferred tax assets: | | |
| Net operating loss carryforwards | $ 3,622 | $ 11,365 |
| Intangible assets | 54 | 17,678 |
| Research and development credits | 209 | 657 |
| Operating lease liabilities | 1,032 | 745 |
| Other, net | 77 | 646 |
| Total deferred tax assets | 4,994 | 31,091 |
| Deferred tax liabilities: | | |
| Property and equipment | (182) | (293) |
| Operating lease assets | (793) | (555) |
| Total deferred tax liabilities | (975) | (848) |
| Valuation allowance | (4,019) | (30,243) |
| Net deferred tax assets | $ — | $ — |

The Company has established a valuation allowance against net deferred tax assets due to the uncertainty that such assets will be realized. The Company periodically evaluates the recoverability of the deferred tax assets. At such time as it is determined that it is more likely than not that deferred tax assets will be realizable, the valuation allowance will be reduced. The Company has recorded a full valuation allowance of $30.2 million as of December 31, 2020, as it does not believe it is more likely than not that the deferred tax assets will be realized primarily due to the generation of pre-tax book losses, the lack of feasible tax-planning strategies, the limited existing taxable temporary differences, and the subjective nature of forecasting future taxable income into the future. The Company increased its valuation allowance by $26.2 million during the year ended December 31, 2020.

A reconciliation of the federal statutory income tax rate and the Company's effective income tax rate is as follows:

| | Year ended December 31, | |
|---|---|---|
| | 2019 | 2020 |
| Federal statutory income tax rate | 21.0% | 21.0% |
| State income taxes, net of federal benefit | 8.3 | 3.3 |
| Change in valuation allowance | (29.3) | (25.8) |
| Fair value of purchase right liability | — | 1.5 |
| Other permanent differences | (0.1) | (0.1) |
| Other | 0.1 | 0.1 |
| Effective income tax rate | — % | — % |

At December 31, 2020, the Company had federal, California and other state net operating loss (NOL) carryforwards of $49.1 million, $13.0 million and $2.4 million, respectively. The federal NOL carryforwards will carryforward indefinitely and can offset 80% of future taxable income each year, and the state NOL carryforwards begin to expire in 2038.

At December 31, 2020, the Company also had federal and California research tax credit carryforwards of approximately $312,000 and $658,000, respectively. The federal research tax credit carryforwards begin to expire in 2038, and the California research tax credit carryforward does not expire and can be carried forward indefinitely until utilized.

The above NOL carryforward and the research tax credit carryforwards are subject to an annual limitation under Section 382 and 383 of the Internal Revenue Code of 1986, as amended (IRC), and similar state provisions due to ownership change limitations that have occurred which will limit the amount of NOL and tax credit carryforwards that can be utilized to offset future taxable income and tax, respectively. In general, an ownership change, as defined by Section 382 and 383, results from transactions increasing ownership of certain stockholders or public groups in the stock of the corporation by more than 50 percentage points over a three-year period. The Company has not completed an IRC Section 382/383 analysis regarding the limitation of net operating loss and research and development credit carryforwards. If a change in ownership were to have occurred, additional NOL and tax credit carryforwards could be eliminated or restricted. If eliminated, the related asset would be removed from the deferred tax asset schedule with a corresponding reduction in the valuation allowance. Due to the existence of the valuation allowance, limitations created by future ownership changes, if any, related to the Company's operations in the United States will not impact the Company's effective tax rate.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) was enacted in response to the COVID-19 pandemic. The CARES Act, among other things, permits NOL carryovers and carrybacks to offset 100% of taxable income for taxable years beginning before 2021. In addition, the CARES Act allows NOLs incurred in 2018, 2019, and 2020 to be carried back to each of the five preceding taxable years to generate a refund of previously paid income taxes. Due to the Company's history of net operating losses, the CARES Act did not have a material impact on the Company's income tax provision for the years ended December 31, 2019 and 2020.

The Company recognizes a tax benefit from an uncertain tax position when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on the technical merits. Income tax positions must meet a more likely than not recognition at the effective date to be recognized.

A reconciliation of the beginning and ending amount of unrecognized tax benefits for 2019 and 2020, excluding interest and penalties, is as follows (in thousands):

| | Year ended December 31, | |
|---|---|---|
| | 2019 | 2020 |
| Balance at the beginning of the year | $ — | $ — |
| Increase (decrease) related to prior year positions | — | — |
| Increase related to current year positions | — | 191 |
| Balance at the end of the year | $ — | $ 191 |

Included in the balance of unrecognized tax benefits as of December 31, 2020 is $175,000 that, if recognized, would reduce the Company's annual effective tax rate, subject to valuation allowance. The Company does not anticipate any significant changes to unrecognized tax benefits over the next 12 months.

The Company files income tax returns in the United States, California and Massachusetts. The Company is not currently under examination in any of these jurisdictions, and all of the Company's tax years remain effectively open in all jurisdictions to examination due to net operating loss carryforwards. The Company's policy is to recognize interest expense and penalties related to income tax matters as tax expense. For the years ended December 31, 2019 and 2020, the Company has not recognized any interest or penalties related to income taxes.

## 14. Net loss per share

The following table summarizes the computation of basic and diluted net loss per share of the Company (in thousands, except share and per share data):

| | Year ended December 31, | | Three months ended March 31, | |
|---|---|---|---|---|
| | 2019 | 2020 | 2020 | 2021 |
| | | | (unaudited) | |
| Net loss | $ (12,040) | $ (101,660) | $ (23,658) | $ (18,017) |
| Weighted-average shares of common stock used in computing net loss per share, basic and diluted | 23,795,645 | 25,247,998 | 24,760,841 | 26,684,702 |
| Net loss per share, basic and diluted | $ (0.51) | $ (4.03) | $ (0.96) | $ (0.68) |

The Company's potentially dilutive securities, which include its convertible preferred stock, options to purchase common stock and common stock subject to repurchase related to unvested restricted stock and options early exercised, have been excluded from the computation of diluted net loss per share as the effect would be to reduce the net loss per share. Therefore, the weighted-average number of common shares outstanding used to calculate both basic and diluted net loss per share is the same. The Company excluded the following potential common shares, presented based on amounts outstanding at each period end, from the computation of diluted net loss per share for the periods indicated because including them would have had an anti-dilutive effect:

| | December 31, | | Three months ended March 31, | |
|---|---|---|---|---|
| | 2019 | 2020 | 2020 | 2021 |
| | | | (unaudited) | |
| Convertible preferred stock issued | 38,103,681 | 69,584,682 | 38,103,681 | 85,516,454 |
| Conversion of convertible preferred stock in future issuance (B-2) | — | 13,175,191 | — | — |
| Options to purchase common stock | 4,674,120 | 7,849,747 | 4,069,120 | 12,036,860 |
| Restricted stock subject to future vesting | 2,536,146 | 1,361,979 | 2,292,083 | 1,149,166 |
| Options early exercised subject to future vesting | — | 2,557,812 | 875,000 | 2,755,937 |
| Total potentially dilutive shares | 45,313,947 | 94,529,411 | 45,339,884 | 101,458,417 |

## 15. Retirement plan

The Company sponsors an employee savings plan that qualifies as a deferred salary arrangement under Section 401(k) of the IRC. Participating employees may defer up to the Internal Revenue Service annual contribution limit. The Company has not made any contributions for the years ended December 31, 2019 and 2020. Beginning in 2021, the Company provides a safe harbor contribution of 3.0% of the employee's compensation, not to exceed eligible limits. For the three months ended March 31, 2021 (unaudited), the Company incurred $127,000 in expenses related to the safe harbor contribution.

## 16. COVID-19 pandemic

The current COVID-19 pandemic, which is impacting worldwide economic activity, poses the risk that the Company or its employees, contractors, suppliers, and other partners may be prevented from conducting business activities for an indefinite period of time, including due to shutdowns that may be requested or mandated by governmental authorities. During the year ended December 31, 2020, and the three months ended March 31, 2021 (unaudited), the Company has not experienced significant impact from the pandemic. The extent to which the COVID-19 pandemic will impact the Company's business will depend on future developments that are highly uncertain and cannot be predicted at this time.

## 17. Subsequent events

Subsequent events have been evaluated through June 9, 2021, which is the date the consolidated financial statements were issued.

***UCSF Agreement amendment***

In connection with the UCSF Agreement amendment, on May 25, 2021 (unaudited), the Company issued 1,133,935 shares of the Company's common stock to the Regents.

***2021 Stock option grants***

From April 1, 2021 through May 17, 2021 (unaudited), the Company granted options to purchase an aggregate 3,495,000 shares of its common stock to employees, members of the Board of Directors and a member of the Company's scientific advisory board at an exercise price of $4.84.

***Erasca Foundation***

In May 2021 (unaudited), the Company established a wholly-owned subsidiary, Erasca Foundation. The Erasca Foundation will provide support such as direct research grants, hardship grants, patient advocacy, patient education in underserved populations, and funding for other initiatives to positively impact society.

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***shares***

***Common stock***

# Prospectus

| | | | | |
|---|---|---|---|---|
| **J.P. Morgan** | **Morgan Stanley** | **BofA Securities** | **Evercore ISI** | **Guggenheim Securities** |

, 2021

# Part II
# Information not required in prospectus

## Item 13. Other expenses of issuance and distribution.

The following table indicates the expenses to be incurred in connection with the offering described in this registration statement, other than underwriting discounts and commissions, all of which will be paid by us. All amounts are estimated except the SEC registration fee, the Financial Industry Regulatory Authority, Inc., or FINRA, filing fee and the Nasdaq Global Select Market listing fee.

| | Amount paid or to be paid |
|---|---|
| SEC registration fee | $ * |
| FINRA filing fee | * |
| Nasdaq Global Select Market listing fee | * |
| Accountants' fees and expenses | * |
| Legal fees and expenses | * |
| Transfer Agent's fees and expenses | * |
| Printing and engraving expenses | * |
| Miscellaneous | * |
| Total expenses | $ * |

* To be provided by amendment.

## Item 14. Indemnification of directors and officers.

Section 102 of the General Corporation Law of the State of Delaware permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our certificate of incorporation provides that no director of the Registrant shall be personally liable to it or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the General Corporation Law of the State of Delaware prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the General Corporation Law of the State of Delaware provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he was or is a party or is threatened to be made a party to any threatened, ending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of

all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Our amended and restated certificate of incorporation, which will become effective immediately prior to the closing of this offering, provides that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of us) by reason of the fact that he or she is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. Our amended and restated certificate of incorporation provides that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements may require us, among other things, to indemnify our directors and officers for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of our directors or officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

In any underwriting agreement we enter into in connection with the sale of common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act, against certain liabilities.

## Item 15. Recent sales of unregistered securities.

Set forth below is information regarding unregistered securities issued by us since our inception in July 2018. Also included is the consideration received by us for such securities and information relating to the section of the Securities Act, or rule of the SEC, under which exemption from registration was claimed.

(a) Issuances of Securities

1. In October and December 2018 and January, February and March 2019 we issued an aggregate of 38,103,681 shares of Series A convertible preferred stock to investors at a purchase price of $1.667 per share, for aggregate consideration of approximately $63.5 million.

2. In April 2020 and August 2020 we issued an aggregate of 27,481,001 shares of Series B-1 convertible preferred stock to investors at a purchase price of $5.00 per share, for aggregate consideration of approximately $137.4 million.

3. In December 2020, we issued 4,000,000 shares of B-2 convertible preferred stock to Asana BioSciences, LLC as consideration pursuant to a merger agreement.

4. In January 2021 we issued an aggregate of 15,931,772 shares of B-2 convertible preferred stock to investors at a purchase price of $7.50 per share, for aggregate consideration of approximately $119.5 million.

No underwriters were involved in the foregoing issuances of securities. The securities described in this section (a) of Item 15 were issued to investors in reliance upon the exemption from the registration requirements of the Securities Act, as set forth in Section 4(a)(2) under the Securities Act and Regulation D promulgated thereunder relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required. All holders of securities described above represented to us in connection with their purchase or issuance that they were accredited investors and were acquiring the securities for their own account for investment purposes only and not with a view to, or for sale in connection with, any distribution thereof and that they could bear the risks of the investment and could hold the securities for an indefinite period of time. The holders received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration statement or an available exemption from such registration.

(b) Grants of Stock Options

1. From January 2019 through May 31, 2021, we granted stock options to purchase an aggregate of 20,427,888 shares of our common stock at a weighted-average exercise price of $1.98 per share, to certain of our employees, consultants and directors in connection with services provided to us by such persons. 4,936,418 of these options have been exercised and 117,945 have been cancelled through May 31, 2021.

The stock options and common stock issuable upon exercise of such options as described in this section (b) of Item 15 were issued pursuant to written compensatory plans or arrangements with our employees and directors, in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 701 promulgated under the Securities Act or the exemption set forth in Section 4(a)(2) under the Securities Act and Regulation D promulgated thereunder relative to transactions by an issuer not involving any public offering. All recipients either received adequate information about us or had access, through employment or other relationships, to such information.

All of the foregoing securities are deemed restricted securities for purposes of the Securities Act. All certificates representing the issued shares of capital stock described in this Item 15 included appropriate legends setting forth that the securities had not been registered and the applicable restrictions on transfer.

### Item 16. Exhibits and financial statement schedules.

(c) **Exhibits.** See Exhibit Index attached to this registration statement, which is incorporated by reference herein.

(d) **Consolidated Financial Statement Schedules.** Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the consolidated financial statements or notes thereto.

### Item 17. Undertakings.

The undersigned registrant hereby undertakes to provide to the underwriter, at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned hereby undertakes that:

(a) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(b) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

# Exhibit index

| Exhibit number | Description of exhibit |
|---|---|
| 1.1* | Form of Underwriting Agreement |
| 3.1** | Amended and Restated Certificate of Incorporation, as amended (currently in effect) |
| 3.2** | Bylaws (currently in effect) |
| 3.3* | Form of Amended and Restated Certificate of Incorporation (to be effective immediately prior to the closing of this offering) |
| 3.4* | Form of Amended and Restated Bylaws (to be effective immediately prior to the closing of this offering) |

| Exhibit number | Description of exhibit |
|---|---|
| 4.1* | Specimen stock certificate evidencing the shares of common stock |
| 4.2** | Amended and Restated Stockholders Agreement, dated April 15, 2020, by and among the Registrant and certain of its stockholders |
| 5.1* | Opinion of Latham & Watkins LLP |
| 10.1#** | Erasca, Inc. 2018 Equity Incentive Plan, as amended, including form of stock option agreement thereunder |
| 10.2#* | Erasca, Inc. 2021 Incentive Award Plan and form of stock option agreement thereunder |
| 10.3#* | Erasca, Inc. 2021 Employee Stock Purchase Plan |
| 10.4#* | Non-Employee Director Compensation Policy |
| 10.5#** | Employment Letter Agreement, dated February 27, 2020, by and between Jonathan E. Lim, M.D. and the Registrant |
| 10.6#** | Employment Letter Agreement, dated February 5, 2020, by and between David M. Chacko, M.D. and the Registrant |
| 10.7#** | Release Agreement, dated December 15, 2020, by and between Gary Yeung and the Registrant |
| 10.8#** | Employment Letter Agreement, dated August 18, 2020, by and between Michael D. Varney, Ph.D. and the Registrant |
| 10.9#** | Scientific Advisory Board Agreement, dated August 15, 2020, by and between Michael D. Varney, Ph.D. and the Registrant |
| 10.10#** | Employment Letter Agreement, dated November 5, 2020, by and between Wei Lin, M.D. and the Registrant |
| 10.11#** | Employment Letter Agreement, dated March 27, 2021, by and between Ebun S. Garner and the Registrant |
| 10.12#* | Form of Indemnification Agreement for Directors and Officers |
| 10.13†** | Lease Agreement, dated September 29, 2020 by and between ARE-SD Region No. 23, LLC and the Registrant, as amended |
| 10.14†** | Lease, dated July 27, 2018, by and between BMR-Road to the Cure LP and the Registrant, as amended |
| 10.15†** | Exclusive License Agreement, dated December 21, 2018, by and between The Regents of the University of California and the Registrant, as amended |
| 10.16†** | License Agreement, dated February 18, 2020, by and between NiKang Therapeutics, Inc. and the Registrant |
| 10.17† | Exclusive License Agreement, dated March 12, 2020, by and between Katmai Pharmaceuticals, Inc. and the Registrant |
| 10.18†** | License Agreement, dated April 16, 2020, by and between LifeArc and the Registrant |
| 10.19†** | Agreement and Plan of Merger, dated November 23, 2020, by and among the Registrant and its wholly-owned subsidiaries, ASN Product Development, Inc. and Asana BioSciences, LLC |
| 10.20†** | Amended and Restated License Agreement, dated November 23, 2020, by and among the Registrant's wholly-owned subsidiaries, ASN Product Development, Inc. and Asana BioSciences, LLC |

| Exhibit number | Description of exhibit |
|---|---|
| 10.21†** | Asset Purchase Agreement, dated March 12, 2021, by and between Emerge Life Sciences, PTE, LTD. and the Registrant |
| 23.1* | Consent of KPMG LLP, independent registered public accounting firm |
| 23.2* | Consent of Latham & Watkins LLP (included in Exhibit 5.1) |
| 24.1* | Power of Attorney (included on signature page) |

* To be filed by amendment.

** Previously submitted.

# Indicates management contract or compensatory plan.

† Portions of this exhibit have been omitted for confidentiality purposes.

# Signatures

Pursuant to the requirements of the Securities Act, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on this day of , 2021.

ERASCA, INC.

By: _____
Jonathan E. Lim, M.D.
Chairman, Chief Executive Officer and Co-Founder

# Signatures and power of attorney

We, the undersigned officers and directors of Erasca, Inc., hereby severally constitute and appoint Jonathan E. Lim, M.D. and David M. Chacko, M.D., and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement (or any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities held on the dates indicated.

| Signature | Title | Date |
|---|---|---|
| _____<br>Jonathan E. Lim, M.D. | Chairman, Chief Executive Officer and Co-Founder<br>(principal executive officer) | , 2021 |
| _____<br>David M. Chacko, M.D. | Chief Financial Officer<br>(principal financial and accounting officer) | , 2021 |
| _____<br>James A. Bristol, Ph.D. | Director | , 2021 |
| _____<br>Alexander W. Casdin | Director | , 2021 |
| _____<br>Bihua Chen | Director | , 2021 |
| _____<br>Julie Hambleton, M.D. | Director | , 2021 |
| _____<br>Valerie Harding-Start, Ph.D. | Director | , 2021 |

| Signature | Title | Date |
|---|---|---|
| Pratik S. Multani, M.D. | Director | , 2021 |
| Michael D. Varney, Ph.D. | Director and Chairman of Research and Development | , 2021 |

**Exhibit 10.17**

**CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT IS BOTH (I) NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED.**

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# EXCLUSIVE LICENSE AGREEMENT

**BY AND BETWEEN**

**KATMAI PHARMACEUTICALS, INC.**

**AND**

**ERASCA, INC.**

**DATED AS OF MARCH 12, 2020**

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**Exhibit List**

Exhibit A: Licensed Know-How
Exhibit B: Licensed Patents
Exhibit C: JCN068 Structure
Exhibit D: UC License Agreement

**CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT IS BOTH (I) NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED.**

# EXCLUSIVE LICENSE AGREEMENT

This EXCLUSIVE LICENSE AGREEMENT (this "**Agreement**") is entered into as of March 12, 2020 (the "**Effective Date**") by and between Katmai Pharmaceuticals, Inc., a Delaware corporation having an address at 1126 Goldenrod Ave., Corona Del Mar, CA 92625 ("**Katmai**"), and Erasca, Inc., a Delaware corporation having an address at 10835 Road to the Cure #140, San Diego, CA 92121 ("**Erasca**"). Erasca and Katmai are sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**".

## RECITALS

**WHEREAS,** Katmai is a company engaged in the development of small molecule therapeutic and diagnostic products that modulate epidermal growth factor receptors and enable the identification, diagnosis, selection, treatment and/or monitoring of patients for neuro-oncological applications;

**WHEREAS,** Erasca desires to obtain an exclusive, worldwide license from Katmai to develop, manufacture, commercialize and otherwise exploit certain such products; and

**WHEREAS,** Katmai desires to grant such a license to Erasca on the terms and subject to the conditions set forth in this Agreement;

**NOW, THEREFORE,** in consideration of the premises and the mutual promises and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

## 1. DEFINITIONS

All references to particular Exhibits, Articles or Sections shall mean the Exhibits to, and Articles and Sections of, this Agreement, unless otherwise specified. For the purposes of this Agreement and the Exhibits hereto, the following words and phrases shall have the following meanings:

"**Accelerated Regulatory Approval**" means a Regulatory Approval by the FDA pursuant to 21 C.F.R. Subpart H, "Accelerated Approval of New Drugs for Serious or Life-Threatening Illnesses," as set forth in 21 C.F.R. §500 et al.

"**Affiliate**" means, with respect to any Person, any other Person that, directly or indirectly through one or more intermediaries, controls, is controlled by or is under common control with such Person, for as long as such control exists. For purposes of the definition of "Affiliate," "control" means the direct or indirect ownership of fifty percent (50%) or more of the voting or economic interest of a Person, or the power, whether pursuant to contract, ownership of securities or otherwise, to direct the management and policies of a Person. For clarity, once a Person ceases to be an Affiliate of a Party, then, without any further action, such Person shall cease to have any rights, including license and sublicense rights, under this Agreement by reason of being an Affiliate of such Party.

"**Agreement**" has the meaning set forth in the Preamble.

"**Audited Party**" has the meaning set forth in Section 3.6 (*Records and Audits*).

"**Back-up Compounds**" means compounds (i) Covered by the Existing Licensed Patent Rights other than JCN068, and (ii) having as their primary mechanism of action [***].

**"Clinical Proof of Concept"** means [***]
.

"**Clinical Study**" means a Phase 1 Study, Phase 1/2 Study, Phase 2 Study, Phase 2/3 Study or a Phase 3 Study, or other study (including a non-interventional study) in humans to obtain information regarding a product, including information relating to the safety, tolerability, pharmacological activity, pharmacokinetics, dose ranging or efficacy of the product.

"**Combination Product**" means a product that contains or uses a Licensed Compound and at least one other drug, device or biologically active pharmaceutical compound that is not a Licensed Compound (a "**Combination Product Component**") that satisfies all of the following conditions: (i) [***], (ii) [***], (iii) [***], and (iv). [***] If a Party (or in the case of Erasca, its Sublicensee) believes that a Licensed Product containing or using another drug, device or biologically active pharmaceutical compound that is not a Licensed Compound should qualify as a Combination Product under both this Agreement and the UC License Agreement, despite the fact that it does not meet one or more of the conditions set forth in subsections (i) through (iv) of this Agreement or the definition of such term in the UC License Agreement, such Party may request that the other Party reasonably cooperate with it to seek a waiver from UC to allow such Licensed Product to be treated as a Combination Product for purposes of the UC License Agreement. If such waiver is obtained from UC, then such Licensed Product shall be treated as a Combination Product consistent with the conditions of such waiver and pursuant to this Agreement.

"**Commercially Reasonable Efforts**" means those efforts and resources commensurate with those efforts commonly used, in accordance with applicable Laws in the biotechnology industry by a company of comparable resources and capabilities in connection with the development or commercialization of pharmaceutical products that are of similar status, including, with respect to commercial potential, the proprietary position of the product, the regulatory status and approval process, the probable profitability of the applicable product and other relevant factors such as technical, legal, scientific or medical factors. Notwithstanding the foregoing, with respect to the exercise of any rights in the Licensed Patents and Licensed Know-How Controlled by Katmai pursuant to the UC License Agreement and sublicensed to Erasca hereunder, "Commercially Reasonable Efforts" shall include at least the corresponding diligence efforts required under the UC License Agreement.

"**Confidential Information**" has the meaning set forth in Section 8.1(a) (*Confidential Information*).

"**Control**" or "**Controlled**" means, with respect to any Know-How, material, Patent Right, or other intellectual property right, the possession (whether by ownership or license) by a Party or its Affiliate of the ability to grant to the other Party a license, sublicense or access as provided herein to such Know-How, material, Patent Right, or other intellectual property right, without violating the terms of any agreement or other arrangement with any Third Party, or being obligated to pay any royalties or other consideration therefor, in existence as of the time such Party or its Affiliates would first be required hereunder to grant the other Party such license, sublicense or access.

"**Covered**" by a Patent Right means that a Valid Claim (absent a license thereunder or ownership thereof) would be Infringed by the Exploitation of the Licensed Product; provided that for any claim that is in an application and pending, then such pending claim shall be treated as if it were issued as then pending for the purposes of determining Infringement at the time coverage is assessed. Cognates of the word "**Cover**" shall have correlative meanings.

"**Defending Party**" has the meaning set forth in Section 4.5 (*Defense of Third Party Claims*).

"**Disclosing Party**" has the meaning set forth in Section 8.1(a) (*Confidential Information*).

"**Effective Date**" has the meaning set forth in the Preamble.

"**Enforcing Party**" has the meaning set forth in Section 4.4(b) (*Cooperation with Respect to Enforcement*).

"**Erasca Indemnified Parties**" has the meaning set forth in Section 7.1(a) (*By Katmai*).

"**Existing Licensed Patent Rights**" means any Licensed Patents existing as of the Effective Date, which are set forth on Exhibit B.

"**Exploit**" means to develop, make, use, offer for sale, sell, and import a product. Cognates of the word "Exploit" shall have correlative meanings.

"**FDA**" means the United States Food and Drug Administration or any successor entity thereto.

"**First Commercial Sale**" means, with respect to the Licensed Product in any country, the first sale for end use or consumption of the Licensed Product in such country after Regulatory Approval has been granted in such country.

"**GAAP**" means then current generally accepted accounting principles in the United States as established by the Financial Accounting Standards Board or any successor entity or other entity generally recognized as having the right to establish such principles in the United States, in each case consistently applied. Unless otherwise defined or stated herein, financial terms shall be calculated under GAAP.

"**Governmental Authority**" means any court, agency, department, authority or other instrumentality of any national, state, county, city or other political subdivision.

"**Indication**" means with respect to a product, a prophylactic or therapeutic use for a particular disease or condition with respect to which use at least one human clinical trial is required to support the inclusion of such disease or condition in the indication statement of a package insert approved by a Regulatory Authority for such Licensed Product and for which an application for Regulatory Approval (or a supplement, extension or amendment thereto) must be filed to obtain such approval by such Regulatory Authority; provided however that, the use of a Licensed Product for a disease or condition for a patient population that is a subset of the patient population for an Indication for which such Licensed Product has already received Regulatory Approval shall be deemed not to be a separate Indication from such already approved Indication.

"**Infringe**" or "**Infringement**" means any infringement as determined by Law, including, without limitation, direct infringement, contributory infringement or any inducement to infringe.

"**Initiation**" means, with respect to a human Clinical Study, the first dosing in the first patient in such Clinical Study.

"**Invention**" means any discovery or invention, whether or not patentable, conceived or otherwise made by either Party, or by both Parties, in exercising its rights or performing its obligations under this Agreement.

"**Investigator**" means either of [***] or [***].

"**Issuing Party**" has the meaning set forth in Section 8.2(b) (*Review*).

"**JCN068**" means the compound having the structure set forth in Exhibit C.

"**Katmai**" has the meaning set forth in the Preamble.

"**Katmai Acquiree**" shall have the meaning set forth in Section 10.8 (*Sale Transaction or Katmai Acquisition*).

"**Katmai Acquisition**" shall have the meaning set forth in Section 10.8 (*Sale Transaction or Katmai Acquisition*).

"**Katmai Indemnified Parties**" has the meaning set forth in Section 7.1(b) (*By Erasca*).

"**Know-How**" means techniques, technology, trade secrets, inventions, methods, know-how, data, materials (whether biological, chemical or physical) and results (including pharmacological, toxicological and clinical data and results), analytical and quality control data and results, regulatory documents and filings, and other information.

"**Law**" means, individually and collectively, any and all laws, ordinances, rules, directives, administrative circulars and regulations of any kind whatsoever of any Governmental Authority within the applicable jurisdiction.

"**Lead Licensed Compound**" means initially, JCN068, or any Back-up Compound that is developed instead of JCN068 or its replacement Back-up Compound, and all prodrugs, metabolites, stereoisomers, diastereomers, enantiomers, tautomers, solvates, hydrate forms, homologs, salt forms, labeled forms (e.g., deuterated, $^{13}C$ enriched, etc.), esters, crystalline forms (e.g., polymorphs), semi-crystalline forms, and amorphous forms, of such compound.

"**Licensed Compounds**" means (i) JCN068, (ii) any Back-up Compounds, and (iii) all prodrugs, metabolites, stereoisomers, diastereomers, enantiomers, tautomers, solvates, hydrate forms, homologs, salt forms, labeled forms (e.g., deuterated, $^{13}C$ enriched, etc.), esters, crystalline forms (e.g., polymorphs), semi-crystalline forms, and amorphous forms, of any of the foregoing compounds.

"**Licensed Field**" means any and all fields of use.

"**Licensed Know-How**" means all Know-How that both (a) is Controlled by Katmai or its Affiliates as of the Effective Date or at any time during the Term and (b) is necessary or useful for the discovery, development, manufacture, or commercialization of Licensed Compounds or Licensed Products, including such Know-How as set forth on Exhibit A.

"**Licensed Materials**" means those physical, biological or tangible materials within the Licensed Know-How set forth on Exhibit A.

"**Licensed Patents**" means the Patent Rights Controlled by Katmai or its Affiliates as of the Effective Date or at any time during the Term that claim inventions necessary or useful for the discovery, development, manufacture or commercialization of Licensed Compounds or Licensed Products.

"**Licensed Product**" means a product containing or comprising a Licensed Compound, in any form or formulation.

"**Losses**" has the meaning set forth in Section 7.1(a) (*By Katmai*).

"**Milestone Events**" shall have the meaning set forth in Section 3.1(b) (*Milestone Payments*).

"**Milestone Payments**" shall have the meaning set forth in Section 3.1(b) (*Milestone Payments*).

"**Net Sales**" means, with respect to the Licensed Product, the total amount received (including fair market value of any non-cash consideration) by Erasca or its Sublicensee (a "**Selling Party**") on account of the sale, lease, provision, transfer, or other disposition of a Licensed Product to a customer, after deduction of the following in accordance with GAAP to the extent separately itemized in the applicable invoice, and not otherwise reimbursed, and allowed: (a) cash, trade or quantity discounts, rebates (including rebates similar to Medicare or other government rebates), and reimbursements, (b) any shipping costs, (c) allowances or credits because of rejected or returned products, (d) sales or use taxes, tariffs, import/export duties or other excise taxes imposed on particular sales, and value added taxes, and (e) allowances for uncollectible amounts; provided that no particular deduction may be accounted for more than once in the calculation of Net Sales. For clarity, with respect to Licensed Products sold that are submitted for payment to an insurance company, Medicare, Medicaid or any other governmental

or nongovernmental body for which less than 100% of the charged amount is actually paid to Erasca or its Sublicensees, any royalties payable under this Agreement shall be applied to the amount reimbursed less any applicable exclusions provided above. If Erasca or its Sublicensee makes any sales to any Third Party in a transaction in a given country that is not in an arms'-length transaction, or is transferred to a Third Party without charge or at a discount, then Net Sales means the gross amount normally charged to other customers in arm's length transactions less the allowable deductions set forth above. The sale, provision, transfer, or other disposition of a Licensed Product between Erasca and its Sublicensees when such Licensed Products are intended for subsequent sale to a customer shall not constitute Net Sales unless such Licensed Product is for end use by Erasca or such Sublicensee. In the case of transfers of Licensed Products between any of Erasca or its Sublicensees for subsequent sale, lease or other transfer, then Net Sales will be the greater of [***] (including [***]) (i) [***], or (ii) [***].

If a Licensed Product is sold (or Licensed Product service provided) in the form of a Combination Product, then the Net Sales of such Combination Product shall be determined as follows: Net Sales of such Combination Product shall be multiplied by the fraction A/(A+B), where A is the average list price of the Licensed Compound component over the last [***] ([***]) year period (or, solely prior to the date on which such [***] ([***]) year average list price is available, during the preceding shorter time period during which such list price information is available) when sold separately as a Licensed Product in the country of sale of the Combination Product, and B is the average list price of the Combination Product Component(s) over the last [***] ([***]) year period (or, solely prior to the date on which such [***] ([***]) year average list price is available, during the preceding shorter time period during which such list price information is available) in the same country. If the Licensed Compound component is not sold separately, and the Combination Product Component is sold separately, or if neither such Licensed Compound component, nor the Combination Product Component of the Combination Product, is sold separately in the country of sale of the Combination Product, the adjustment to Net Sales shall be determined by the Parties in good faith prior to the date Erasca or a Sublicensee commences sale of such Combination Product. Notwithstanding the foregoing, in no event will the proration factor set forth above be less than [***] ([***]); provided, however, that if the relative importance or value of the Licensed Compound component to the Combination Product is less than[***] ([***]), Katmai agrees to negotiate in good faith with Erasca with respect to a lower proration factor. In no event may Erasca apply any anti-royalty stacking provision to the Net Sales of a Licensed Product wherein the royalty owed to the Third Party with respect to such Licensed Product is in relation to the Combination Product Component of the Licensed Product.

"[***] **Field**" means [***].

"**Other Claimed Compounds**" means all compounds Covered by the Existing Licensed Patent Rights, other than Back-up Compounds and JCN068.

"**Party**" has the meaning set forth in the Preamble.

"**Patent Action**" has the meaning set forth in Section 4.2 (*Prosecution and Maintenance*).

"**Patent Rights**" means the rights and interests in and to all (a) patents, including, without limitation, granted patents, certificates of invention, registrations, reissues, extensions, substitutions, confirmations, renewals, re-registrations, re-examinations, revalidations, patents of additions or like filing thereof; (b) patent applications, including, without limitation, provisionals, converted provisionals, non-provisionals, continued prosecution applications, continuations, divisionals or continuations-in-part thereof, any patents issuing therefrom, and any substitution, extension, registration, confirmation, reissue, re-examination, renewal or like filing thereof, and (c) counterparts of the foregoing in any jurisdiction throughout the world.

"**Person**" means any corporation, limited or general partnership, limited liability company, joint venture, trust, unincorporated association, governmental body, authority, bureau or agency, any other entity or body, or an individual.

**"Phase 1 Study"** means a human clinical trial of a compound or product, the principal purpose of which is a preliminary determination of safety in the target patient population.

**"Phase 1/2 Study"** means a human clinical trial of a compound, the initial principal purpose of which is to determine preliminary safety in a target patient population followed by a Phase 2 Study component, the principal purpose of which is to determine both efficacy and safety in the target patient population.

**"Phase 2 Study"** means a human clinical trial of a compound or product for an Indication, the principal purpose of which is a determination of safety and efficacy for such Indication in the target patient population.

**"Phase 2/3 Study"** means a human clinical trial of a compound or product for an Indication, the principal purpose of which is a further determination of efficacy for such Indication and safety, in the target patient population, at the intended clinical dose or doses or range of doses, on a sufficient number of subjects and for a sufficient period of time to confirm the optimal manner of use of such compound or product (dose and dose regimen) for such Indication prior to Initiation of the pivotal Phase 3 Study for such Indication, and which itself provides sufficient evidence of safety and efficacy for such Indication that may be used directly to support the filing of a New Drug Application, without a Phase 3 Study, or to be included as a Phase 3 Study in filings with Regulatory Authorities.

**"Phase 3 Study"** means a human clinical trial of a compound or product for an Indication on a sufficient number of subjects that is designed to establish that the compound or product is safe and efficacious for its intended use, and to determine warnings, precautions, and adverse reactions that are associated with the compound or product in the dosage range to be prescribed, and to support Regulatory Approval of the compound or product for such Indication or label expansion of the compound or product.

"**Pricing Approval**" means any approval, agreement, determination, or decision establishing prices that can be charged to consumers for a pharmaceutical or diagnostic product or that shall be reimbursed by Governmental Authorities for a pharmaceutical or diagnostic product, in each case, in a country where Governmental Authorities approve or determine pricing for pharmaceutical or diagnostic products for reimbursement or otherwise.

"**Receiving Party**" has the meaning set forth in Section 8.1(a) (*Confidential Information*).

"**Regulatory Approval**" means, with respect to a Licensed Product in any country or jurisdiction, all approvals (including where required in order to market the Licensed Product, any Pricing Approval), registrations, licenses or authorizations from a Regulatory Authority in a country or other jurisdiction that are necessary to manufacture, use, store, import, distribute, market, and sell such Licensed Product in such country or jurisdiction.

"**Regulatory Authority**" means any Governmental Authority or other authority responsible for granting Regulatory Approvals for the Licensed Product, including the FDA and any corresponding national or regional regulatory authorities.

"**Regulatory Cause**" means a delay in the completion of a regulatory stage Development Milestone that is directly caused by the FDA or another Regulatory Authority either (a) putting a clinical hold on a Clinical Study involving a Licensed Product that Erasca or a Sublicensee is developing pursuant to this Agreement, or (b) requiring additional data relating to a Licensed Product that Erasca or a Sublicensee is developing pursuant to this Agreement was outside that agreed upon with the Regulatory Authority in any meeting with such Regulatory Authority in anticipation of such Clinical Study in a material or significant respect and is based on Regulatory Authority guidelines or regulations and such guidelines or regulations were only implemented after Initiation of a human Clinical Study for such Licensed Product, ***provided, however***, that with respect to (a)-(b), (i) such delay came to exist despite Erasca's (or a Sublicensee's) use of Commercially Reasonable Efforts to avoid such delay, (ii) such delay is not due in any material respect to Erasca's (or a Sublicensee's) actions or inactions that were counter to the guidance provided to Erasca (or a Sublicensee) or otherwise published by the Regulatory Authority, and (iii) such delay is not due in any material respect to Erasca's (or a Sublicensee's) failure to provide data to the Regulatory Authority in a form, amount and quality commonly used by companies of comparable resources and capabilities in the biotechnology industry or to undertake preclinical and clinical development in a form and of a quality that would be commonly used in the pharmaceutical industry.

"**Regulatory Exclusivity**" means, with respect to the Licensed Product, any exclusive marketing rights or data exclusivity rights conferred by the applicable Regulatory Authority with respect to the Licensed Product (that would satisfy the requirements of 21 CFR § 316.31, 21 USC § 355a, 42 USC § 262(k)(7) or its non-U.S. equivalents) other than a Patent Right.

"**Regulatory Filing**" means any (a) submissions, non-administrative correspondence, notifications, registrations, licenses, authorizations, applications and other filings with any Governmental Authority with respect to the research, clinical investigation, development, manufacture, distribution, pricing, reimbursement, marketing or sale of the Licensed Product and (b) Regulatory Approvals for the Licensed Product.

"**Release**" has the meaning set forth in Section 8.2(b) (*Review*).

"**Reviewing Party**" has the meaning set forth in Section 8.2(b) (*Review*).

"**Royalty Term**" has the meaning set forth in Section 3.1(d)(ii) (*Royalty Rate; Royalty Term*).

"**Sale Transaction**" has the meaning set forth in Section 10.7 (*Successors and Assigns*).

"**Selling Party**" has the meaning set forth in the definition of "Net Sales."

"**Subsequent Financing**" means a closing of the issuance and sale by Erasca of shares of its equity (preferred or common stock) in its first financing transaction in which Erasca receives cash proceeds in excess of[***] dollars ($[***]) following the Effective Date for purposes of the up-front payment in Section 3.1(a) and following the applicable Milestone Event for purposes of the investment right in Section 3.1(c).

"**Sublicensee(s)**" means any Person (whether an Affiliate of Erasca or a Third Party) to which Erasca has granted a sublicense under this Agreement.

"[***] **Candidate**" has the meaning set forth in Section 5.5 (*Exclusivity*).

"**Term**" has the meaning set forth in Section 9.1 (*Term*).

"**Territory**" means the entire world.

"**Third Party**" means a Person other than (a) Katmai or any of its Affiliates and (b) Erasca or any of its Affiliates.

"**Third Party Acquirer**" shall have the meaning set forth in Section 10.8 (*Sale Transaction or Katmai Acquisition*).

**"UC License Agreement"** means that certain Exclusive License Agreement between Katmai and The Regents of the University of California (the "**UC**") dated March 11, 2020 and attached as Exhibit D.

"**Valid Claim**" means (a) any issued claim in the Patent Rights that has not irrevocably: (i) expired; (ii) been disclaimed, cancelled or superseded, or if cancelled or superseded, has not been reinstated; and (iii) been revoked, held invalid, or otherwise declared unenforceable or not allowable by a tribunal or patent authority of competent jurisdiction over such claim in such country, in all cases from which no further appeal has or may be taken, and (b) any claim of a pending patent application in the Patent Rights that has not been irrevocably abandoned or finally rejected without the possibility of appeal or re-filing, provided that a claim within a patent application that has been pending for more than five (5) years from the date of issuance of the first substantive office action (e.g., a restriction requirement will not be deemed substantive) received with respect to such claim on a per country basis shall no longer be a Valid Claim unless and until such claim becomes an issued claim of an issued patent, in which case such claim will be deemed a Valid Claim for the purposes of this Agreement retroactively from the date it ceased being a Valid Claim.

## 2. LICENSE GRANT

**2.1 Grant**. Subject to the terms and conditions of this Agreement, Katmai hereby grants to Erasca an exclusive, royalty bearing license, with the right to grant sublicenses through multiple tiers in accordance with Section 2.2 (*Sublicenses*), under the Licensed Patents and the Licensed Know-How, in each case, to Exploit Licensed Compounds and Licensed Products in the Licensed Field in the Territory during the Term.

**2.2 Sublicenses**.

(a) Erasca shall be entitled, without the prior consent of Katmai, to grant one or more sublicenses, in full or in part, by a written agreement to Erasca's Affiliates and to Third Parties ([***]), ***provided, however,*** that: (a) any such permitted sublicense shall be consistent with and subject to the terms and conditions of this Agreement; (b) a copy of such sublicense with any such Sublicensee shall be delivered to Katmai within [***] ([***]) days of its execution and Katmai shall have the right to disclose such sublicense to the UC; (c) Erasca will continue to be responsible for full performance of Erasca's obligations under the Agreement and will be responsible for all actions of such Sublicensee as if such Sublicensee were Erasca hereunder; and (d) any such Sublicensee shall agree in writing to be bound by terms consistent with the obligations of Erasca hereunder that are relevant to the rights sublicensed to Erasca to Sublicensee under such sublicense agreement, including with respect[***]. For clarity, and subject to the provisions of the UC License Agreement, a sublicense granted to an Affiliate of Erasca, or to independent contractors acting on behalf of Erasca or its Sublicensees[***],.

(b) If this Agreement is terminated for any reason, at the request of any Sublicensee (and subject to any necessary approval of UC required under the UC License Agreement), the sublicense granted to such Sublicensee shall continue in full force and effect, provided that such Sublicensee neither is in default of its obligations under the relevant sublicense nor has caused Katmai to be in default of its obligations under the UC License Agreement, and will be assigned by Erasca to Katmai. Prior to any such assignment such Sublicensee shall furnish to Katmai written acknowledgment of its direct obligation to Katmai and contact information for purposes of notices under such sublicense agreement. The assigned sublicenses will remain in full force and effect with Katmai as the licensor or sublicensor instead of Erasca, but the duties of Katmai under the assigned sublicenses will not be greater than the duties of Katmai under this Agreement, and the rights of Katmai under the assigned sublicenses will not be less than the rights of Katmai under this Agreement, including all financial consideration and other rights of Katmai. Upon request by Katmai each such Sublicensee shall negotiate in good faith with Katmai any reasonable amendments to the relevant sublicense as necessary to conform such sublicense to this Agreement.

**2.3 Transfer of Licensed Know-How and Licensed Materials.**

(a) Katmai shall transfer to Erasca copies or samples of the Licensed Know-How, including the Licensed Materials, listed on Exhibit A, in accordance with a schedule to be mutually agreed by the Parties. Such transfer must be completed within three (3) months after the Effective Date. Katmai shall notify Erasca promptly following the completion of its transfer of such Licensed Know-How as set forth herein. Following such notification, Erasca shall promptly either (i) confirm to Katmai that such transfer is complete or (ii) notify Katmai, with reasonable specificity, of any Licensed Know-How on Exhibit A that have not yet been transferred, and, in the case of clause (ii) above, promptly following Erasca's notification, the Parties shall in good faith discuss and attempt to resolve such dispute.

(b) Following completion of the technology transfer contemplated in Section 2.3(a), Katmai shall provide, at Erasca's expense and on financial terms consistent with biotechnology industry standards (or such terms as Erasca may otherwise negotiate directly with the Investigators), consulting support consistent with the scope of the engagement, or make Commercially Reasonable Efforts to facilitate the Investigators to provide consulting support, in connection with the further Exploitation of the Licensed Product in the Territory as reasonably requested by Erasca.

(c) Erasca acknowledges that any materials transferred by Katmai to Erasca under this Agreement are experimental in nature and may have unknown characteristics and therefore agrees to use prudence and reasonable care in the use, handling, storage, transportation and disposition and containment of any such materials. Accordingly, no such materials shall be used in any human application, including any clinical trial.

**2.4 License Conditions and Retained Rights of the UC**.

(a) Erasca acknowledges that the license rights granted herein under the Licensed Patents and Licensed Know-How that are Controlled by Katmai pursuant to the UC License Agreement are so granted subject to the terms and conditions of the UC License Agreement, including that (i) the UC expressly reserves the right for itself and other nonprofit and academic research institutions to use such Licensed Patents and Licensed Know-How for (x) educational and non-commercial research purposes (including clinical research and research sponsored by commercial entities), and (y) to publish results arising therefrom; (ii) the UC's grant to the U.S. Government of a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the invention claimed by such Licensed Patents throughout the world; and (iii) such Licensed Know-How is licensed non-exclusively to Katmai by the UC and the UC retains the right to license such Licensed Know-How to Third Parties without notice.

(b) Erasca agrees (and will require all Sublicensees to agree in writing) that, unless a valid waiver is obtained from the applicable funding agency at Erasca's (or Katmai's) written request, Erasca's exclusive right to use or sell any Licensed Products in the United States is subject to the obligation that any Licensed Products will be manufactured substantially in the United States, to the extent required by 35 U.S.C. § 204 and applicable regulations of Chapter 37 of the Code of Federal Regulations.

(c) Nothing in this Agreement shall require Katmai to take or foreswear any action the result of which would reasonably result in the breach of the UC License Agreement. This Agreement shall be subject to the terms of the UC License Agreement, including the following provisions of the UC License Agreement in its Articles [***], and in the event of a conflict between the terms of this Agreement and those of the UC License Agreement, the terms of the UC License Agreement shall control.

**2.5 Right of First Negotiation**.

(a) For a period of [***] years from the Effective Date (the "**ROFN Period**"), Erasca shall have an exclusive first right to negotiate with Katmai to enter into a definitive agreement governing the research, development and commercialization of products (x) whose principal mode of action is inhibition of epidermal growth factor receptor(s), other than Licensed Products, (y) that are Covered by Existing Licensed Patent Rights or that are Covered by other Patent Rights acquired by Katmai from the [***] after the Effective Date, and (z) that may be suitable as a basis for therapeutic or diagnostic products or services in the Neuro-oncology Field (the "**ROFN Products**"), including without limitation rights for ROFN Products Katmai obtains pursuant to any license agreement (a "**ROFN Product Agreement**") between Katmai and the [***] as follows:

(b) During the ROFN Period, Katmai shall notify Erasca in writing upon the earlier of (x) Katmai's election to pursue development of an ROFN Product or (y) thirty (30) days (or as the Parties otherwise agree) after Katmai's entry into a ROFN Product Agreement, and provide to Erasca a summary of the ROFN Product Agreement and the related Patent Rights and ROFN Product. Katmai shall not grant to any Third Party any right to develop and commercialize a ROFN Product, or engage in any negotiations with any Third Party the terms of any agreement pursuant to which such Third Party would obtain such a license or other right to develop and commercialize the ROFN Product, until the applicable Release Date (as defined below), whereupon Erasca shall have no further rights under this Section 2.5 with respect to the applicable ROFN Products and ROFN Product Agreement. Erasca shall not use information included in any disclosure by Katmai related to a ROFN Product Agreement or ROFN Product to enter into discussions with the [***] or the Investigators or for any other purpose, other than exercising its rights of first negotiation under this Section 2.5. If within sixty (60) days after receiving such written notice from Katmai, Erasca delivers to Katmai a written notice that Erasca desires to negotiate with Katmai the terms of an agreement pursuant to which Erasca would obtain rights to develop and commercialize such ROFN Products, then until the Release Date, Katmai and Erasca will negotiate in good faith the terms of such agreement. The "**Release Date**" shall mean the date that is the first to occur of the date upon which Erasca notifies Katmai in writing that it is no longer interested in negotiating the terms of an agreement pursuant to which it would obtain the rights to develop and commercialize the relevant ROFN Products or the date that is sixty (60) days after Katmai delivers to Erasca notice in writing of (x) or (y) above. Erasca's rights under this Section 2.5 shall apply on a ROFN Product Agreement-by-ROFN Product Agreement basis.

**2.6 Initial Focus; Back-up Compounds.**

(a) Erasca shall use Commercially Reasonable Efforts to develop Licensed Products first for use within the **[***]**Field for treatment of primary cancers originating in the brain (e.g., gliomas) before expanding development efforts to include other Indications in the oncology field.

(b) Furthermore, subject to the remainder of this Section 2.6, the Parties have agreed that Erasca shall have the right to commercialize Licensed Products containing, **[***]** and not Licensed Products that contain more than **[***]** (**[***]**) **[***]**, whether such multiple Licensed Compounds are contained in the same or different Licensed Products. Erasca shall have the right during the Term prior to the first Regulatory Approval of any Licensed Product to conduct research and development activities to select Back-up Compounds to replace potentially the then-existing Lead Licensed Compound due to concerns regarding the safety, efficacy, or competitiveness of such Lead Licensed Compound, or other scientific, medical or intellectual property matters relating to such Lead Licensed Compound. Any replacement of a Lead Licensed Compound with

a Back-up Compound shall be effective upon Erasca's delivery of written notice that Erasca is replacing such Lead Licensed Compound with a Back-up Compound to Katmai, in which case the prior Lead Licensed Compound shall immediately be deemed a Back-up Compound and the selected Back-up Compound shall become the Lead Licensed Compound. If in performing activities with respect to Back-up Compounds as permitted in this Section 2.6, Erasca determines that it desires to, and develops plans to, commercialize Licensed Products containing the then-existing Lead Licensed Compound as well as Licensed Products containing one or more other Licensed Compounds, Erasca shall so notify the PAC, in which case the Parties shall negotiate an agreement to enable Erasca to do so pursuant to the procedures set in Section 2.6(d).

(c) As set forth in subsection (b), Erasca shall have the right to research and develop, but not commercialize, Back-up Compounds, for the purposes of determining the characteristics and properties of Back-up Compounds for potential replacement of a then-existing Lead Licensed Compound. Upon the reasonable request of Erasca, Katmai shall share information relevant to the potential safety and efficacy of Back-up Compounds identified by Erasca for treatment within the **[***]** Field.

(d) If Erasca desires to develop and/or commercialize concurrently multiple products containing different Licensed Compounds (and for clarity, this will not apply where Erasca wishes to engage in development of a Back-up Compound instead of and as a replacement for a Lead Licensed Compound then being developed as described in subsections (b) and (c)), such activity shall be the subject of a separate license agreement to be negotiated by the Parties in their discretion. If Erasca notifies Katmai in writing specifying the additional Licensed Compound(s) Erasca wishes to develop concurrently with the Lead Licensed Compound then being developed, the Parties shall negotiate in good faith the terms of a separate license agreement for sixty (60) days and if the Parties are not able to reach agreement within such sixty (60) day period (subject to extension by mutual agreement) Katmai shall have no further obligations to enter into an additional license agreement with respect to such other Licensed Compounds. Erasca shall not develop or commercialize any such additional Licensed Compounds unless and until the Parties agree on the terms of and enter into an applicable license agreement in addition to this Agreement. For clarity, one Licensed Compound shall be the same as another Licensed Compound for purposes of this Section 2.6(d) if the other Licensed Compound is a prodrug, metabolite, stereoisomer, diastereomer, enantiomer, tautomer, solvate, hydrate form, homolog, salt form, labeled form (e.g., deuterated, $^{13}C$ enriched, etc.), ester, crystalline form (e.g., a polymorph), semi-crystalline form, and amorphous form, of the first Licensed Compound.

**2.7 Other Claimed Compounds**. Neither Party shall develop an Other Claimed Compound except as permitted in this Section 2.7. Katmai grants Erasca during the Term a license, co-exclusive with Katmai, under the Licensed Patents to research and perform non-clinical development on, but not otherwise Exploit, Other Claimed Compounds for the purpose of characterizing such Other Claimed Compounds and determining Erasca's interest in developing such Other Claimed Compound. In the event that either Party desires to develop an Other Claimed Compound, such Party shall give notice of such interest to the other Party and the Parties shall discuss in good faith a potential research and development collaboration for such Other Claimed Compound in which the requesting Party expresses an interest. Development of Other Claimed Compounds shall proceed only pursuant to such a mutually agreed research and development collaboration between the Parties.

## 3. FEES, ROYALTIES AND PAYMENTS

**3.1 Upfront Payment, Milestone Payments and Royalties**.

(a) **Upfront Payment**.

(i) **Cash Consideration**. Within thirty (30) days following the Effective Date, Erasca shall make a non-refundable cash payment to Katmai in the amount of five million, six hundred seventy thousand dollars ($5,670,000).

(ii) **Equity Consideration**. In further consideration of the licenses and rights granted to Erasca hereunder, Katmai shall participate in Erasca's Subsequent Financing and purchase a number of shares of stock of Erasca having an aggregate value of $[***], at a price per share which is *pari passu* to all other investors who participate in the Subsequent Financing. Katmai's shares shall have the rights and obligations set forth in the then-effective Certificate of Incorporation of Erasca, together with the financing documents entered into by the other investors in the Subsequent Financing. At least ten (10) days prior to the closing of the proposed Subsequent Financing, Erasca shall provide written notice of the proposed financial terms of the Subsequent Financing to Katmai. Katmai shall execute the relevant purchase agreement and all other financing documents on terms consistent with the other investors in the Subsequent Financing. Notwithstanding the foregoing, the obligation under this subsection (ii) shall terminate upon and not apply to an initial public offering by Erasca or the earlier Sale Transaction.

(b) **Milestone Payments**. Erasca shall pay to Katmai certain one-time milestone payments ("**Milestone Payments**") following the first occurrence of specific milestone events, as set forth in Section 3.1(c) (*Milestone Event/Payment Table*) (the "**Milestone Events**"). Erasca shall pay to Katmai the applicable Milestone Payment within twenty-five (25) days after the first achievement of an applicable Milestone Event with respect to a Licensed Product by Erasca or its Sublicensees. For clarity, (a) each Milestone Payment is payable only once and (b) no Milestone Payment shall be payable for subsequent or repeated achievements of such Milestone Event with respect to one or more of the same or different Licensed Products. Each of the Milestone Payments shall be non-refundable and non-creditable.

(c) **Milestone Event/Payment Table**. The Milestone Events and Milestone Payments to be made pursuant to Section 3.1(b) (*Milestone Payments*) shall be as follows:

| Milestone Event | Milestone Payment (USD) |
|---|---|
| [***] | $ [***] |
| [***] | $ [***] |
| [***] | $ [***] |
| [***] | $ [***] |

| Milestone Event | Milestone Payment (USD) | |
|---|---|---|
| [***] | $ | [***] |
| [***] | $ | [***] |
| [***] | $ | [***] |
| [***] | $ | [***] |
| First calendar year in which annual Net Sales of Licensed Product exceeds $[***] | $ | [***] |

At Katmai's election, the [***] dollar ($]) payment for [***] may be paid entirely in cash or as a [***] ($[***]) cash payment and Katmai's right to invest [***] dollars ($[***]) in Erasca's next Subsequent Financing at a price per share which is *pari passu* to all other investors who participate in the Subsequent Financing. Katmai's shares shall have the rights and obligations set forth in the then-effective Certificate of Incorporation of Erasca, together with the financing documents entered into by the other investors in the Subsequent Financing. At least ten (10) days prior to the closing of the proposed Subsequent Financing, Erasca shall provide written notice of the proposed financial terms of the Subsequent Financing to Katmai. If Katmai fails to provide notice of its election to participate in the Subsequent Financing within such ten (10) day period, the right under this paragraph shall terminate. Notwithstanding the foregoing, the right under this paragraph shall terminate upon and not apply to an initial public offering by Erasca or earlier Sale Transaction.

(d) **Royalty Rate; Royalty Term**.

(i) Subject to the provisions of Section 3.1(e)(iii) (*Minimum Annual Royalty*), Erasca shall pay to Katmai a royalty on a Licensed Product-by-Licensed Product and country-by-country basis on annual Net Sales of Licensed Product sold by all Selling Parties during the applicable Royalty Term for Licensed Product in the Territory as follows, provided that if the composition of matter or method of use of a Licensed Products is not Covered by a Valid Claim of a Licensed Patent in the country in which it is sold at the time of sale, then the applicable royalty rate for Net Sales of such Licensed Product in such country shall be reduced by [***]percent [***] (%) from the amount set forth in the below table:

| Net Sales | Royalty Rate |
|---|---|
| (i) The portion of Net Sales in the Territory in each Calendar Year up to and including the first [***] dollars ($[***]) in Net Sales for such Calendar Year | [***]% |
| (ii) The portion of Net Sales in the Territory in each Calendar Year exceeding [***] dollars ($[***]) up to and including [***] dollars ($[***]) in Net Sales for such Calendar Year | [***]% |

| Net Sales | Royalty Rate |
|---|---|
| (iii) The portion of Net Sales in the Territory in each Calendar Year exceeding [***] dollars ($[***]), plus an additional royalty as provided in (iv) | [***]% |
| (iv) Only after Regulatory Approval for a second Indication has been achieved in the United States, the portion of Net Sales in each Calendar Year exceeding [***] dollars ($[***]) in Net Sales for such Calendar Year shall be subject to a royalty in addition to that set forth in (iii) above | [***]% |

(ii) Royalties will be payable on a quarterly basis; any such payments shall be made within thirty (30) days after the end of the calendar quarter during which the applicable Net Sales occurred. Erasca's obligation to pay royalties with respect to a Licensed Product in a particular country shall commence upon the First Commercial Sale of such Licensed Product in such country and shall expire on a Licensed Product-by-Licensed Product and country-by-country basis on the earlier of (a) the tenth (10th) anniversary of the expiration of all Valid Claims included in the Licensed Patents Covering the composition of matter or method of use of such Licensed Product in such country, or (b) the twentieth (20th) anniversary of the First Commercial Sale of such Licensed Product in such country (each such period, a "**Royalty Term**").

(iii) **Minimum Annual Royalty**. Commencing with the calendar year after the calendar year in which the First Commercial Sale of Licensed Product occurs, Erasca shall pay for each such calendar year during the Term during the Royalty Term a minimum annual royalty of [***] dollars ($[***]) no later than January 31st of such year, provided such minimum annual royalty shall be creditable against royalties accruing in the applicable calendar year.

(iv) **Validity Challenges**. If Erasca or a Sublicensee, itself or through a Third Party, institutes any proceeding that contests the validity of any Licensed Patent during the Term, Erasca agrees to pay to Katmai, directly and not into any escrow or other account, all royalties and other amounts due in view of Erasca's and its Sublicensees' activities under this Agreement during the period of challenge, and Katmai's and the UC's attorneys' fees in defending such action, with such fees payable on a monthly basis. Should the outcome of such contest determine that any challenged patent claim is valid, Erasca will thereafter, and for the remainder of the Royalty Term, pay an increased royalty rate equal to [***] ([***]) times the otherwise applicable royalty rate and the entirety of Katmai's and the UC's legal (including attorney) fees and costs incurred during such proceeding. Breach of this Section 3.1(d)(iv) shall be a material breach of the Agreement. If a Sublicensee challenges the validity of a Licensed Patent, so long as Erasca did not directly or indirectly induce, encourage, or otherwise assist such Sublicensee in its challenge of the Patent Rights, then the royalty rate payable with respect to Net Sales by Erasca or its Affiliates, as opposed to Net Sales by the relevant Sublicensees, will not be [***] pursuant to the preceding sentence; provided, further, Erasca shall promptly terminate the sublicense agreement(s) pursuant to which such Sublicensee has been granted rights under such Licensed Patents if such Sublicensee fails to pay, within forty-five (45) days after receiving an invoice from Katmai or UC detailing such fees and costs, the applicable increased royalty rate and the entirety of Katmai's and the UC's legal (including attorney) fees and costs incurred during such proceeding.

(e) **Third Party Payments and Royalty Minimum**.

(i) In the event that Patent Rights Controlled by a Third Party are necessary to exercise the rights licensed hereunder in the Licensed Patents with respect to the Exploitation of a Licensed Products in the Licensed Field in a country within the Territory under this Agreement, in a given calendar quarter, Erasca shall have the right to deduct from any payments payable to Katmai with respect to Net Sales of such Licensed Product in such country as set forth in Section 3.1(d) (*Royalty Rate; Royalty Term*) [***] percent ([***]%) of all royalties paid with respect to Net Sales of such Licensed Product in such country during such calendar quarter by or on behalf of Erasca to such Third Party for a license under such Patent Rights in connection with the Exploitation of Licensed Product in such calendar quarter subject to the royalty minimum set forth in Section 3.1(e)(iii) (*Royalty Minimum*) below. Notwithstanding the foregoing, Erasca shall confer with Katmai and provide Katmai with a reasonable opportunity to comment prior to Erasca's undertaking any commitment to make payments to a Third Party that would give rise to a right to make deductions with respect to royalty payments to Katmai under this Agreement. Katmai shall provide comments to Erasca regarding such arrangements within ten (10) days of notice of the applicable commitment, which Erasca will consider in good faith.

(ii) Notwithstanding anything to the contrary in this Agreement, Katmai shall remain solely responsible for the payment of all royalty, milestone, and other payment obligations, if any, due to Third Parties in connection with any Third Party license that Katmai sublicenses to Erasca under this Agreement, including, but not limited to, the UC License Agreement (the "**Katmai Third Party Obligations**"), provided that Katmai shall have no obligation to Erasca to fulfill any such Katmai Third Party Obligations (x) that are dependent upon Erasca's fulfilling its obligations under this Agreement, or (y) where Katmai's ability to perform such Katmai Third Party Obligation is impaired by Erasca's non-fulfillment of any of its obligations under this Agreement, (*e.g.*, Erasca's payment obligations) in the event that Erasca is not in full compliance with the relevant obligations under this Agreement.

(iii) **Royalty Minimum**. Notwithstanding anything else herein to the contrary, on a country-by-country basis and Licensed Product-by-Licensed Product basis, in no event will the applicable royalty otherwise due to Katmai in a calendar quarter be less than, or reduced to, an effective royalty rate that is less than [***] ([***] %) percentage points greater than the corresponding effective rate payable for such Net Sales in such country in such calendar quarter by Katmai to the UC under the UC License Agreement.

**3.2 Buyout Option**. Erasca will notify Katmai within thirty (30) days after the first achievement of Clinical Proof of Concept for any Indication (the "**POC Notice**"). Erasca shall have the right, exercisable by written notice to Katmai within [***] ([***]) days after Erasca provides the POC Notice, to submit to Katmai a non-binding offer, including purchase price and other material terms, for (a) the purchase of all Licensed Patents, Licensed Know-How and other assets owned by Katmai that are necessary or useful for Exploitation of Licensed Products in the Licensed Field in the Territory or (b) for the purchase of Katmai. Within [***] ([***]) days following receipt of Erasca's purchase proposal, Katmai may either decline, accept or counter

Erasca's offer with its own proposed purchase terms. If Katmai accepts or counters Erasca's offer within such [***] ([***]) day period, then for an additional [***] ([***]) days after Erasca's receipt of such acceptance or counter from Katmai (the "**Negotiation Period**"), the Parties shall negotiate in good faith the terms of an agreement pursuant to which Erasca may purchase such assets or Katmai.

If the Parties do not enter into an agreement governing Erasca's purchase of such assets or Katmai within the Negotiation Period, then upon mutual agreement of the Parties, an independent, third-party investment bank or investment advisory firm (a "**Firm**") with expertise in the pharmaceutical field shall be engaged by the Parties at the expense of the Party that initiated the discussion regarding the purchase of Katmai or Katmai's assets within the following[***] ([***]) days to (i) review each Party's respective valuations of the relevant assets or Katmai, (ii) conduct its own independent valuation analysis of such assets or Katmai, and (iii) deliver and review with the Parties the Firm's own independent valuation assessment of such assets or Katmai. Neither Katmai or Erasca shall be obligated to accept any proposed terms, whether made by Erasca or Katmai or the Firm.

After the Firm provides the assessment described in subsection (iii), the Parties may by mutual agreement continue to negotiate the terms of such purchase of such assets or Katmai in their sole discretion. Unless and until the Parties in their sole discretion enter into an agreement pursuant to which Erasca acquires such assets or Katmai, Katmai's rights to receive all milestone, royalty, and other payments payable to it pursuant to this Agreement shall continue in full force and effect as provided herein.

**3.3 Method of Payment**. Unless otherwise agreed by the Parties, all payments due from Erasca to Katmai under this Agreement shall be paid in U.S. Dollars by wire transfer or electronic funds transfer of immediately available funds to an account as Katmai may direct from time to time by written notice to Erasca. Katmai shall provide instructions for wire transfer to Erasca within twenty (20) days of the Effective Date.

After the First Commercial Sale of the first Licensed Product and until expiration of the last Royalty Term, Erasca shall prepare and deliver to Katmai royalty reports of the sale of the Licensed Product by the Selling Parties for each calendar quarter within thirty (30) days of the end of each such calendar quarter specifying in the aggregate and on a Selling Party-by-Selling Party, Licensed Product-by-Licensed Product, and country-by-country basis: (a) total units of Licensed Products sold, unit selling price for Licensed Product, and gross amounts for the Licensed Product sold or otherwise disposed of by a Selling Party; (b) amounts deducted by category in accordance with the definition of "Net Sales" in Article 1 (*Definitions*) from gross amounts to calculate Net Sales; (c) Net Sales; (d) deductions to royalties for payments to Third Parties pursuant to Section 3.1(e) (*Third Party Payments*) and the bases for the calculation of such deductions; and (e) royalties payable.

**3.4 Currency Conversion**. In the case of sales outside the United States, payments received by Erasca will be expressed in the U.S. Dollar equivalent calculated on a quarterly basis in the currency of the country of sale and converted to their U.S. Dollar equivalent using the average rate of exchange over the last thirty days of the applicable calendar quarter to which the sales relate, in accordance with GAAP and the then current standard methods of Erasca or the

applicable Sublicensee, to the extent reasonable and consistently applied; ***provided, however,*** that if, at such time, Erasca or such Sublicensee does not use a rate for converting into U.S. Dollar equivalents that is maintained in accordance with GAAP, then Erasca or such Sublicensee shall use the average rate of exchange over the last thirty days of the applicable quarter with reference to the rate of exchange for such currency reported in *The Wall Street Journal*, Internet U.S. Edition at www.wsj.com, during such portion of the applicable reporting period. Erasca will inform Katmai as to the specific exchange rate translation methodology used for a particular country or countries and cause any Sublicensees to comply with the terms of this Section 3.4.

**3.5 Late Payments**. In the event that any payment due hereunder is not made when due, the payment shall accrue interest beginning on the day following the due date thereof, calculated at the annual rate of the sum of (a) [***]percent ([***]%) plus (b) the prime interest rate quoted by *The Wall Street Journal*, Internet U.S. Edition at www.wsj.com on the date said payment is due, the interest being compounded on the last day of each calendar quarter; ***provided, however,*** that in no event shall said annual interest rate exceed the maximum rate permitted by Law. Each such payment when made shall be accompanied by all interest so accrued.

**3.6 Records and Audits.**

(a) Erasca will keep, and will require its Sublicensees to keep, complete and accurate records of the underlying revenue, expense and other data relating to the calculations of Net Sales generated in the then current calendar year and payments required under this Agreement, and during the preceding six (6) calendar years. Erasca will require its Sublicensees to provide to Erasca all information necessary to calculate the royalties payable to Katmai with respect to Net Sales of such Sublicensees, so that Katmai may exercise its rights under this Section 3.6 with respect to such information in Erasca's possession. Each of Katmai and the UC will have the right, once annually at its own expense, to have a nationally recognized, independent, certified public accounting firm, selected by it and subject to Erasca's prior written consent (which shall not be unreasonably withheld, conditioned or delayed), review any such records in the possession of Erasca and its Affiliates and Sublicensees (the "**Audited Party**") in the location(s) where such records are maintained by the Audited Party upon reasonable written notice (which shall be no less than thirty (30) days' prior written notice) and during regular business hours and under obligations of confidentiality, for the sole purpose of verifying the basis and accuracy of payments made under Article 3 (*Fees, Royalties and Payments*) within the seventy-two (72) month period preceding the date of the request for review. Erasca will receive a copy of each such report concurrently with receipt by Katmai. Should such inspection lead to the discovery of a discrepancy to Katmai's detriment, Erasca will, within thirty (30) days after receipt of such report from the accounting firm, pay the amount of the discrepancy together with interest at the rate set forth in Section 3.5 (*Late Payments*). Katmai will pay the full cost of the review unless the underpayment of amounts due to Katmai is greater than [***]percent ([***]%) of the amount due for any calendar year in the period being examined, in which case Erasca will pay the cost charged by such accounting firm for such review. Should the audit lead to the discovery of a discrepancy to Erasca's detriment, Erasca may credit the amount of the discrepancy, without interest, against future payments payable to Katmai under this Agreement, and if there are no such payments payable, then Katmai shall pay to Erasca the amount of the discrepancy, without interest, within forty-five (45) days of Katmai's receipt of the report.

**3.7 Taxes**.

(a) **Sales Tax**. Erasca is responsible for the payment of any state or local, sales or use, or similar fees or taxes arising as a result of the transfer of Licensed Materials by Katmai to Erasca pursuant to Section 2.3 (*Transfer of Licensed Know-How and Licensed Materials*), and Erasca will remit such fees or taxes to Katmai, as the collection agent, upon invoice.

(b) **Withholding**. In the event that any Law requires Erasca to withhold taxes with respect to any payment to be made by Erasca pursuant to this Agreement, Erasca will notify Katmai of such withholding requirement prior to making the payment to Katmai and provide such assistance to Katmai, including the provision of such standard documentation as may be required by a tax authority, as may be reasonably necessary in Katmai's efforts to claim an exemption from or reduction of such taxes. Erasca will, in accordance with such Law withhold taxes from the amount due, remit such taxes to the appropriate tax authority, and furnish Katmai with proof of payment of such taxes within thirty (30) days following the payment. If taxes are paid to a tax authority, Erasca shall provide reasonable assistance to Katmai to obtain a refund of taxes withheld, or obtain a credit with respect to taxes paid.

## 4. OWNERSHIP; PATENT PROSECUTION, MAINTENANCE AND INFRINGEMENT

**4.1 Ownership**.

(a) Erasca shall solely own Patent Rights Covering any Inventions made solely by or on behalf of Erasca, its Affiliates, or its Sublicensees.

(b) Katmai shall solely own Patent Rights Covering any Inventions made solely by or on behalf of Katmai and its Affiliates.

(c) All Patent Rights Covering any Inventions made jointly by or on behalf of both Katmai (or its Affiliates) and Erasca (or its Affiliates or Sublicensees) ("**Joint IP**") shall be jointly owned by both Katmai and Erasca.

**4.2 Prosecution and Maintenance**.

As between the Parties, Katmai shall control the filing, prosecution and maintenance (including through the conduct of interferences, oppositions, inter partes proceedings, post-grant proceedings, nullity actions and the like) of all Licensed Patents using outside counsel of its choice. Katmai will use good faith efforts to ensure that Erasca receives copies of all correspondence filed with and received from the applicable patent office during the Term and will consider any comments or suggestions by Erasca with respect thereto. While Katmai will control all Patent Actions and all decisions with respect to Patent Actions, it will consider any comments or suggestions by Erasca with respect thereto. Erasca has the right to request Patent Actions via a written request to Katmai [***] ([***]) days prior to the deadline set by the patent office in the territory such Patent Action is to take place. Katmai shall use all reasonable efforts to amend any patent application to include claims reasonably requested by Erasca to protect the Licensed Products contemplated to be sold under this Agreement and to file and prosecute patents in foreign

countries indicated by and paid for by Erasca. For purposes of this Section 4.2, a "**Patent Action**" means, with respect to the Licensed Patents, the preparation, filing, prosecution and maintenance of patent applications and patents in the Licensed Patents, including reexaminations, interferences, oppositions, inventorship related matters, and any other ex parte or inter partes matters (e.g., inter partes review petitions) originating or conducted in a patent office. [***]. Erasca acknowledges that (x) its rights with respect to the filing, prosecution, and maintenance of the Licensed Patents is subject to the terms and conditions of the UC License Agreement; and (y).[***]

**4.3 Joint IP**. The Parties shall confer in good faith regarding any decision to file, prosecute or maintain any Joint IP, and neither Party shall assign, license, or Exploit any Joint IP without the consent of the other Party except as otherwise permitted under this Agreement. For clarity, to the extent any Joint IP constitutes any Licensed Patents or Licensed Know-How, such Licensed Patents and Licensed Know-How will be subject to the license granted to Erasca pursuant to Section 2.1 (*Grant*).

**4.4 Enforcement**.

(a) **Erasca Enforcement**. Each Party will notify the other promptly in writing when any Infringement of a Licensed Patent by a Third Party with respect to a Licensed Compound or Licensed Product is discovered or reasonably suspected. Erasca will not notify such infringer regarding such potential Infringement until receiving Katmai's written permission, which permission will be subject to the terms and conditions of the UC License Agreement and otherwise will not be unreasonably withheld. If Erasca breaches the foregoing restriction and a declaratory judgment action is filed by such infringer against the UC, then Erasca will reimburse Katmai for the UC's out of pocket costs in defending the Licensed Patents as a result of such declaratory judgment. Katmai, Erasca, and, where applicable, the UC will use their diligent efforts to cooperate with each other to [***]. Subject to any rights of the UC with respect to the Licensed Patents under the UC License Agreement, (i) if such an Infringement of potential commercial significance has not been abated within thirty (30) days of notice of such Infringement, Erasca shall have the first right to enforce any patent within the Licensed Patents against any such Infringement or alleged Infringement thereof, with respect to a Licensed Compound or Licensed Product and shall at all times keep Katmai informed as to the status thereof; (ii) Erasca may not join the UC as a party in a suit initiated by Erasca without the UC's prior written consent; (iii) if the UC joins a suit initiated by Erasca, then Erasca [***]; and (iv) Erasca may, at its own expense (including an obligation to reimburse the UC with respect to any legal fees of counsel incurred by the UC in connection with the UC's joinder of such suit), institute suit against any such infringer or alleged infringer and control and defend and settle such suit in a manner consistent with the terms and provisions hereof and recover any damages, awards or settlements resulting therefrom, subject to Section 4.6 (*Recovery*); (v) Katmai or the UC may initiate suit against any such infringer or alleged infringer, at its own expense, if within ninety (90) days of notice of such Infringement, such Infringement has not abated and Erasca has not initiated suit against such infringer or alleged infringer; and (vi) each of Erasca and Katmai shall reasonably cooperate with the other Party, on such other Party's request, in any such litigation (including joining or being named a necessary party thereto) at the Enforcing Party's expense. Erasca shall not enter into any settlement of any action described in this Section 4.4(a) that admits to the invalidity or unenforceability of the Licensed Patents, incurs any financial liability on the part of Katmai or the UC or requires an

admission of liability, wrongdoing or fault on the part of Katmai or the UC, without Katmai's prior written consent, in each case, such consent not to be unreasonably withheld. Erasca shall not grant any rights in Licensed Patents in connection with any settlement of any action inconsistent with the requirements of Article 2 as they relate to the grant of sublicenses. Without limiting any rights to enforce the Licensed Patents held by UC, Katmai hereby agrees that it will not enforce the Existing Licensed Patent Rights, or Patent Rights claiming priority therefrom, or constituting international counterparts thereof, against any Infringement that is not with respect to a Licensed Compound or Licensed Product.

(b) **Cooperation with Respect to Enforcement**. Irrespective of which Party controls an action pursuant to this Section 4.4, the Parties will cooperate in such enforcement action and the Enforcing Party will consider in good faith the comments of the other Party with respect to strategic decisions and their implementation with respect to such action. In furtherance of the foregoing, the Party initiating or defending any such enforcement action (the "**Enforcing Party**") shall keep the other Party reasonably informed of the progress of any such enforcement action, and such other Party shall have the individual right to participate with counsel of its own choice at its own expense.

**4.5 Defense of Third Party Claims**. If either (a) any Licensed Product Exploited by or under authority of Erasca becomes the subject of a Third Party's claim or assertion of Infringement of a patent relating to the Exploitation of such Licensed Product in the Licensed Field in the Territory, or (b) a declaratory judgment action is brought naming either Party as a defendant and alleging invalidity or unenforceability of any of the Licensed Patents, the Party first having notice of the claim or assertion shall promptly notify the other Party, and the Parties shall promptly confer to consider the claim or assertion and the appropriate course of action. Subject to Article 7 (*Indemnification*), unless the Parties otherwise agree in writing, each Party shall have the right to defend itself against a suit that names it as a defendant (the "**Defending Party**"). Neither Party shall enter into any settlement of any claim described in this Section 4.5 that admits to the invalidity, narrowing of scope or unenforceability of the Licensed Patents or this Agreement, incurs any financial liability on the part of the other Party, or requires an admission of liability, wrongdoing or fault on the part of the other Party, without such other Party's prior written consent, in each case, such consent not to be unreasonably withheld, conditioned or delayed. In any event, the other Party shall reasonably assist the Defending Party and cooperate in any such litigation at the Defending Party's request and the Defending Party shall reimburse the other Party's reasonable out-of-pocket costs associated therewith.

**4.6 Recovery**. Except as otherwise provided, the costs and expenses of the Party bringing suit under Section 4.4 (*Enforcement*) shall be borne by such Party, and any damages, settlements or other monetary awards recovered shall be shared as follows: (a) the amount of such recovery actually received by the Party controlling such action shall first be applied to the out-of-pocket costs of each Party and the UC in connection with such action; and then (b) the remainder of the recovery shall be shared as follows:

(a) If Erasca is the Enforcing Party, [***] percent ([***]%) to Erasca and twenty-five percent (25%) to Katmai (and the UC, if applicable); and

(b) (i) If the UC is the Enforcing Party, [***] percent ([***]%) to Katmai, or (ii) if Katmai is the Enforcing Party, [***]percent ([***]%) to Erasca, and [***]percent ([***]%) to Katmai, but if Katmai or the UC requests that Erasca join such action (or if Erasca is involuntarily joined in such action, then [***]percent ([***]%) to Katmai and fifteen percent (15%) to Erasca).

**4.7 Patent Term Extensions and Filings for Regulatory Exclusivity Periods.**

(a) Erasca will advise Katmai if it desires to pursue any patent term extension or supplementary protection certificates or their equivalent for the Licensed Patents.

(b) Erasca will apply for an extension of the term of any patent included within the Licensed Patents, if appropriate, under the [***]; ***provided, however***, that such requirement shall not apply if Erasca, acting reasonably and in good faith, determines that seeking an extension of the term for another patent owned or licensed by Erasca would provide a materially longer patent protection coverage for the applicable Licensed Product. If Erasca or its Sublicensee proposes instead to seek an extension of the term for another Patent Right owned or controlled by Erasca, its Affiliate, or its Sublicensee that provides more comprehensive patent protection coverage for the applicable Licensed Product, the Parties will cooperate to request that UC waive any restrictions in the UC License Agreement that would preclude seeking such extension for such other Patent Right, and upon obtaining such waiver from UC, Erasca, or its Affiliate or Sublicensee shall have the right to seek such extension of such Patent Right. Erasca will prepare all documents and Katmai agrees to execute (or request that the UC execute, if applicable) the documents and to take additional action as Erasca reasonably requests in connection therewith. [***] If either Party receives notice pertaining to the Infringement or potential Infringement of any issued patent included with Licensed Patents under the [***] then that Party will within ten (10) days after receipt of such notice of Infringement so notify the other Party.

**4.8 Patent Marking**. Erasca will mark, and will cause all other Selling Parties to mark, the Licensed Product with all Licensed Patents in accordance with applicable Law, which marking obligation will continue for as long as (and only for as long as) required under applicable Law.

## 5. OBLIGATIONS OF THE PARTIES

**5.1 Responsibility**. Following the Effective Date and at all times during the Term (except as expressly stated otherwise herein), Erasca shall be responsible for, and [***], the research, development and commercialization of the Licensed Products in the Territory, including regulatory, manufacturing, distribution, marketing and sales activities. Subject to the terms and conditions of this Agreement, all decisions concerning the development, marketing and sales of Licensed Product including the clinical and regulatory strategy, design, sale, price and promotion of Licensed Product under this Agreement shall be within the sole discretion of Erasca.

**5.2 Diligence**. Erasca shall use, and shall cause its Sublicensees to use, Commercially Reasonable Efforts to (a) diligently proceed with the development of, and obtaining of Regulatory Approval for, Licensed Products in the [***] Field in the Territory; and (b) after obtaining applicable Regulatory Approval in countries within the Territory, manufacture, supply, market, and sell the Licensed Products in quantities sufficient to meet the market demands therefor in such countries. On or before the dates indicated below, Erasca will achieve each of the following development milestones with respect to a Licensed Product ("**Development Milestones**"):

A. Submit to the FDA an Investigational New Drug application for a Licensed Product by [***].

B. [***]

C. [***]

D. [***]

E. [***]

F. [***]

Notwithstanding the foregoing, if Erasca elects to develop a Back-up Compound pursuant to Section 2.6 (*Initial Focus; Back-up Compounds*), the Parties will cooperate in requesting that the UC agree to extend the deadlines in the UC License Agreement corresponding to the dates specified above for any unmet Development Milestones by a time period as necessary to reflect the time reasonably necessary to allow the Development of the Back-up Compound to the point where such Development Milestone event would be achieved assuming Erasca or its Sublicensees used Commercially Reasonable Efforts to develop such Back-up Compound, and the dates specified above for the Development Milestones shall then be adjusted to match the revised deadlines of the UC License Agreement. Furthermore, if a given milestone set out above is not achieved before a subsequent milestone is achieved, upon achievement of the subsequent milestone all preceding milestones shall be deemed to have been achieved.

Failure to achieve a Development Milestone by the deadline set forth above, as extended pursuant to this Section 5.2, if applicable, shall be a material breach of this Agreement. If the completion of any of the Development Milestones above is delayed beyond the corresponding deadline solely because of the existence of a Regulatory Cause, then Erasca, upon a written request by Erasca to Katmai setting forth the basis for the delay and providing copies to Katmai of documents and correspondence from the FDA that set forth the basis for Erasca's assertion that the Regulatory Cause exists, may request that Katmai in good faith consider amending this Agreement to extend such Development Milestone once for a maximum of a [***] month period, or so long as such Regulatory Cause exists, whichever is shorter. Notwithstanding the foregoing, however, if Erasca provides Katmai with a written representation from its legal counsel that such Regulatory Cause would similarly prevent any other potential licensee of the Licensed Patents from further developing Licensed Products, then so long as Erasca is in good standing with respect to its obligations owed hereunder and, in good faith, requests an extension, Katmai agrees to extend such cap to a total of [***] ([***]) months, which may be (upon request from Erasca) further extended by Katmai in its sole discretion.

If Erasca is unable to meet a due Development Milestone for any reason other than Regulatory Cause, Erasca may extend the Development Milestones deadlines set forth above in [***] month increments, but not more than [***] ([***]) months in total across all Development Milestones, by making a [***] dollar ($[***]) payment to Katmai for the first [***] month Development Milestones deadline extension, and [***] ($[***]) payments for the second and third extensions each, with the third extension being the last allowable extension. In the event of any extension, the deadlines for meeting any later occurring Development Milestones will be similarly extended.

**5.3 Project Advisory Committee**. Promptly after the Effective Date, the Parties shall jointly form a Project Advisory Committee ("**PAC**") mutually determined to comprise not fewer than four (4) or more than eight (8) members with an equal number of members nominated by each Party, provided such members shall be senior management or scientific founders of a Party with requisite expertise to participate in the PAC. The PAC shall review and comment on the plans for development of Licensed Compounds and Licensed Products, review progress and results of such development and coordinate the activities of the Parties (and any Sublicensees, if applicable) with respect to such development. The PAC shall meet at least quarterly with at least one in-person meeting per year. Each Party shall report to the PAC regarding the drug development plan for Licensed Compounds, amendments to such plans and corresponding outcomes, including key goals, strategies, responsibilities, timelines and resource allocations, and the PAC shall provide a forum for each Party to provide comments on such plans and outcomes, to discuss any decisions by Erasca to take a license under Third Party Patent Rights that would be offset pursuant to Section 3.1(e) (*Third Party Payments*) against royalties payable to Katmai and to explore other areas of potential collaboration between the Parties. The PAC shall not have the authority to amend this Agreement or alter the rights and obligations of the Parties thereunder.

**5.4 Katmai Funding**. From time to time prior to achievement of the first milestone in Section 3.1(c) (*Milestone Event/Payment Table*), the Parties shall discuss the terms pursuant to which Katmai may provide funding, including, without limitation, by means of applying government grant or non-profit organization awards or gifts, to support development of the Licensed Product at Katmai or the UC. If the Parties agree in writing upon Katmai's provision of such funding for such purpose, then every year that such Katmai funding is provided, upon the earlier of the end of the calendar year or the completion of grant-funded activities, Erasca will reimburse to Katmai all amounts provided by Katmai to support such development activities, not to exceed a total of [***] dollars ($[***]), so long as Erasca is engaged in an active program for the development of Licensed Product at such time or the first milestone in Section 3.1(c) (*Milestone Event/Payment Table*) has been achieved.

**5.5 Exclusivity**. During the Term, neither Party nor any of its Affiliates shall directly or indirectly develop or Exploit [***] for the prevention or treatment of any Indication within the [***] Field (nor license, permit, encourage, or facilitate any Third Party to do so), except with respect to Licensed Products as permitted under this Agreement. For clarity, neither Party shall pursue the development or other Exploitation of any compound competitive with JCN068 or a Back-up Compound within the[***] Field; ***provided***, ***however***, nothing in this Section 5.5 shall restrict the right of either Party to research, develop and otherwise Exploit other compounds outside the scope of this Agreement that are effective as a[***] in the [***]Field, and which are intended primarily for the clinical treatment of [***] cancers (a "[***] **Candidate**"). Notwithstanding the foregoing, Erasca will not file for regulatory approval of any [***] Candidate for any indication in the[***] Field if (i) regulatory approval of such [***] Candidate for such

indication in the [***] Field would limit the commercial revenue potential of JCN068 or a Back-up Compound for such indication in the[***] Field, and (ii) JCN068 or a Back-up Compound has demonstrated, or is likely to demonstrate based on clinical and/or non-clinical data, clinical utility, sufficient to warrant continued clinical development for the purpose of obtaining Regulatory Approval in the [***] Field. For clarity, nothing in this Section 5.5 will restrict Erasca's ability to develop and commercialize any [***] outside of the [***]Field.

**5.6 Reports**. On an annual basis, Erasca shall submit to Katmai a detailed report providing the status of Erasca's and its Sublicensees' activities related to the Exploitation of the Licensed Product during the preceding twelve (12)-month period, and future activities related to the Exploitation of the Licensed Product it then-currently expects to be conducted during the following thirty-six (36) month period.

**5.7 Licensed Product Supply**. As between the Parties, Erasca shall be responsible for, and shall bear the cost of, obtaining (whether by manufacturing or causing to be manufactured) clinical and commercial supplies of the Licensed Product.

**5.8 Regulatory Filings**. During the Term, as between Katmai and Erasca, Erasca (or its designee) shall have the sole right to file and hold title to Regulatory Filings relating to the Licensed Product.

## 6. REPRESENTATIONS

**6.1 Mutual Warranties**. Each of Katmai and Erasca represent and warrant to the other Party that, as of the Effective Date:

(a) it is duly organized and validly existing under the Law of the jurisdiction of its incorporation, and has full corporate power and authority to enter into this Agreement and to carry out the provisions hereof;

(b) it is duly authorized to execute and deliver this Agreement and to perform its obligations hereunder, and the individual executing this Agreement on its behalf has been duly authorized to do so by all requisite corporate action;

(c) it shall comply with all applicable Law (including applicable Law relating to data protection and privacy) in connection with the performance of its rights, duties and obligations under this Agreement;

(d) this Agreement is legally binding upon it and enforceable in accordance with its terms; and

(e) the execution, delivery and performance of this Agreement by it does not conflict with any agreement, instrument or understanding, oral or written, to which it is a party or by which it may be bound, nor violate any material applicable Law.

**6.2 Additional Katmai Warranties**. Katmai represents and warrants to Erasca that, as of the Effective Date:

(a) Subject to the UC License Agreement, Katmai controls the patent applications and patents listed on Exhibit B as is necessary to grant to Erasca a license thereunder with respect to Licensed Compounds and Licensed Products pursuant to this Agreement;

(b) Katmai does not own or have a license to any patent applications or patents that Cover any Licensed Compounds or Licensed Products as of the Effective Date that are not set forth on Exhibit B;

(c) Katmai has not granted to any Third Party any rights or licenses under the Licensed Patents or Licensed Know-How that would conflict with the licenses granted to Erasca hereunder;

(d) To Katmai's knowledge, no patent application or registration within the Licensed Patents is the subject of any pending interference, opposition, cancellation or patent protest pursuant to 37 C.F.R. §1.291;

(e) Katmai has no actual knowledge (for clarity, without any obligation to perform any special search) that the manufacture, use, sale, offer for sale, or importation of a Licensed Product containing JCN068 in the Licensed Field does or will infringe or misappropriate Patent Rights or other intellectual property rights of any Third Party;

(f) To Katmai's actual knowledge (for clarity, without any obligation to perform any special search), there is no prior art that has not been disclosed to any patent authority, or any failure to comply with applicable rules of a patent authority in filing or prosecuting the Licensed Patents, that would reasonably result in the invalidity or unenforceability of the Licensed Patents;

(g) Katmai has no knowledge of any claim or litigation that has been brought or threatened in writing by any Third Party alleging that (i) the Licensed Patents are invalid or unenforceable or (ii) the manufacture, use, sale, offer for sale, or importation of the Licensed Product in the Licensed Field Infringes or misappropriates or would Infringe or misappropriate any right of any Third Party; and

(h) Neither Katmai nor its independent contractors or employees engaged in activities relating to Licensed Compounds or Licensed Products have been debarred, excluded or the subject of debarment or exclusion proceedings by any Governmental Authority**.**

**6.3 Disclaimer**. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS ARTICLE 6 (*REPRESENTATIONS*), NEITHER PARTY MAKES ANY REPRESENTATIONS OR EXTENDS ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR VALIDITY OF PATENT CLAIMS. NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENTATION MADE OR WARRANTY GIVEN BY EITHER PARTY THAT EITHER PARTY WILL BE SUCCESSFUL IN OBTAINING ANY PATENT RIGHTS, OR THAT ANY PATENTS WILL ISSUE BASED ON A PENDING APPLICATION. WITHOUT LIMITING THE RESPECTIVE RIGHTS AND OBLIGATIONS OF THE PARTIES EXPRESSLY SET FORTH HEREIN, EACH PARTY SPECIFICALLY DISCLAIMS ANY GUARANTEE THAT THE PRODUCTS WILL BE SUCCESSFUL, IN WHOLE OR IN PART.

**6.4 Katmai Representations, Warranties and Covenants**. Katmai covenants to Erasca that:

(a) Katmai has maintained and, so long as Erasca is in compliance terms of this Agreement that are necessary to enable Katmai to comply with, or otherwise directly related to Katmai's ability to comply with, the UC License Agreement, including timely payment to Katmai of all monies owed by Erasca to Katmai, will maintain and keep in full force and effect the UC License Agreement, including by making all payments due under the UC License Agreement in a timely fashion. As of the Effective Date, Katmai is in compliance in all material respects with the UC License Agreement, and has performed all material obligations required to be performed by Katmai to date under the UC License Agreement and, to Katmai's knowledge, the UC is not in breach or default in any respect of the UC License Agreement.

(b) If Katmai receives a notice or other communication alleging it is in breach (including a notice or other communication threatening termination) of the UC License Agreement, Katmai shall promptly provide Erasca with a copy of such notice, and such notice shall be provided in advance of any due date for curing the alleged breach. Without limiting any other right or remedy of Erasca under this Agreement and in order to prevent, ameliorate, mitigate, or cure a breach of the UC License Agreement, Erasca may elect to pay any amounts owed to UC under the UC License Agreement (after providing Katmai a reasonable opportunity to do so first), provided that Erasca shall not make any payment to UC prior to the date that is ten (10) days before the end of Katmai's cure period under the UC License Agreement with respect to such alleged breach. If Erasca makes any such payments to UC, Erasca may offset such payments against any future payments otherwise owed by Erasca to Katmai under this Agreement. This Agreement sets forth the obligations of the Parties, and nothing in this Agreement (including any standard of effort set forth herein) shall limit or modify the obligations of Katmai under the UC License Agreement.

(c) So long as Erasca is in compliance with those terms of this Agreement that are necessary to enable Katmai to comply with, or otherwise directly related to Katmai's ability to comply with, the UC License Agreement, including timely payment to Katmai of all monies owed by Erasca to Katmai, Katmai shall not agree or consent to any amendment, supplement, or other modification (including termination) to the UC License Agreement that materially affects Erasca's rights under this Agreement without Erasca's prior written consent, to be given on a case-by-case basis in Erasca's discretion.

## 7. INDEMNIFICATION

**7.1 Indemnity**.

(a) **By Katmai**. Katmai agrees to defend Erasca and its (and its Affiliates') directors, officers, employees and agents (the "**Erasca Indemnified Parties**") at Katmai's cost and expense, and will indemnify and hold Erasca and the other Erasca Indemnified Parties harmless from and against any claims, losses, costs, damages, fees or expenses (including legal fees and expenses) (collectively, "**Losses**") to the extent resulting from any Third Party (not a Sublicensee or an Affiliate thereof) claim (including product liability claims) arising out of or otherwise relating to (i) the breach of any representations, warranties, obligations or covenants made by Katmai in this Agreement or (ii) the Exploitation of the Licensed Compound or Licensed Product by or on behalf

of Katmai, its Affiliates, or their respective Sublicensees (other than Erasca or its Sublicensees) prior to the Effective Date or if applicable after the Term. In the event of any such claim against the Erasca Indemnified Parties by a Third Party, the foregoing indemnity obligations shall be conditioned upon (i) Erasca promptly notifying Katmai in writing of the claim (***provided, however***, that any failure or delay to notify shall not excuse any obligations of Katmai except to the extent Katmai is actually prejudiced thereby) and (ii) Erasca granting Katmai sole management and control, at Katmai's sole expense, of the defense of the claim and its settlement (***provided, however***, that Katmai shall not settle any such claim without the prior written consent of Erasca (not to be unreasonably withheld, conditioned or delayed) if such settlement does not include a complete release from liability or if such settlement would involve Erasca undertaking an obligation (including the payment of money by a Erasca Indemnified Party), would bind or impair an Erasca Indemnified Party, or includes any admission of wrongdoing or that any intellectual property or proprietary right of Erasca or this Agreement is invalid, narrowed in scope or unenforceable), and (iii) the Erasca Indemnified Parties cooperating with Katmai (at Katmai's expense). If, based on the reasonable advice of counsel to the Erasca Indemnified Parties, the Erasca Indemnified Parties have separate defenses from Katmai or there is a conflict of interest between the Erasca Indemnified Parties and Katmai, then the Erasca Indemnified Parties shall be permitted, at their own expense, to retain counsel of its choosing to represent them in such action or proceeding.

(b) **By Erasca**. Erasca agrees to defend Katmai and its (and its Affiliates') directors, officers, employees and agents, together with the Investigators and the UC and its officers, employees and agents (collectively, the "**Katmai Indemnified Parties**") at Erasca's cost and expense, and will indemnify and hold Katmai and the other Katmai Indemnified Parties harmless from and against any Losses to the extent resulting from any Third Party claim (including product liability claims) arising out of or otherwise relating to (a) the breach of any representations, warranties, obligations or covenants in this Agreement, or (b) the Exploitation of the Licensed Compound or Licensed Products by or on behalf of Erasca or its Sublicensees during the Term. In the event of any such claim by the Katmai Indemnified Parties for indemnification, the foregoing indemnity obligations shall be conditioned upon (x) Katmai promptly notifying Erasca in writing of the claim (***provided, however***, that any failure or delay to notify shall not excuse any obligation of Erasca except to the extent Erasca is actually prejudiced thereby) and (y) Katmai granting Erasca sole management and control, at Erasca's sole expense, the defense of the claim and its settlement (***provided, however***, that Erasca shall not settle any such claim without the prior written consent of Katmai if such settlement does not include a complete release from liability or if such settlement would involve undertaking an obligation (including the payment of money by an Katmai Indemnified Party), would bind or impair an Katmai Indemnified Party, or includes any admission of wrongdoing or that any intellectual property or proprietary right of Katmai or this Agreement is invalid, narrowed in scope or unenforceable), and (z) the Katmai Indemnified Parties cooperating with Erasca (at Erasca's expense). If, based on the reasonable advice of counsel to the Katmai Indemnified Parties, the Katmai Indemnified Parties have separate defenses from Erasca or there is a conflict of interest between the Katmai Indemnified Parties and Erasca, then the Katmai Indemnified Parties shall be permitted, at Erasca's expense, to retain counsel of its choosing to represent them in such action or proceeding.

**7.2 Limitation of Damages**. IN NO EVENT SHALL EITHER PARTY BE LIABLE HEREUNDER TO THE OTHER PARTY FOR ANY PUNITIVE, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST REVENUE, LOST PROFITS, OR LOST SAVINGS) HOWEVER CAUSED AND UNDER ANY THEORY, EVEN IF IT HAS NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. THE LIMITATIONS SET FORTH IN THIS SECTION 7.2 SHALL NOT APPLY WITH RESPECT TO (A) ANY BREACH OF ARTICLE 8 (*CONFIDENTIALITY*), (B) THE INTENTIONAL MISCONDUCT OR GROSS NEGLIGENCE OF A PARTY, OR (C) THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF EITHER PARTY UNDER THIS ARTICLE 7 (*INDEMNIFICATION*).

**7.3 Insurance**. At least sixty (60) days prior to the Initiation of any clinical trial by or on behalf of Erasca or its Sublicensees, Erasca shall at its own expense procure and maintain during the Term (and for three (3) years thereafter) insurance with a retroactive date of placement prior to or coinciding with the Effective Date in the following forms and amounts:

Commercial Form General Liability Insurance (contractual liability included) with minimum limits as follows:

**Each Occurrence**: $1,000,000;
**Products/Completed Operations Aggregate**: $5,000,000;
**Personal and Advertising Injury:** $1,000,000;
**General Aggregate (commercial form only):** $5,000,000; and
**Worker's Compensation** (as legally required in the jurisdiction in which Erasca and its Affiliates are doing business).

Notwithstanding the foregoing, no later than sixty (60) days before the anticipated date of First Commercial Sale of any Licensed Product, Erasca, at its sole cost and expense, will insure its activities in connection with any work performed hereunder and will obtain, keep in force, and maintain the following insurance: Commercial Form General Liability Insurance (contractual liability included) with minimum limits as follows:

**Each Occurrence:** $5,000,000;
**Products/Completed Operations Aggregate:** $10,000,000;
**Personal and Advertising Injury:** $5,000,000;
**General Aggregate (commercial form only):** $10,000,000; and
**Worker's Compensation** (as legally required in the jurisdiction in which Erasca and its Affiliates are doing business).

Erasca shall furnish Katmai with certificates of insurance evidencing compliance with all requirements of this Section 7.3. Such certificates will indicate both Katmai and the UC as an additional insured(s) and loss payee under the coverage described above in this Section 7.3 and include a provision that the coverage will be primary and will not participate with, nor will be excess over, any valid and collectable insurance or program of self-insurance maintained by Katmai or the UC. Katmai will promptly notify Erasca in writing of any claim or suit brought against it (or the UC) for which it (or the UC) intends to invoke the indemnification provisions of this Agreement. Erasca will keep Katmai informed of its defense of any claims pursuant to this Article 7 (*Indemnification*). Erasca shall provide Katmai with written notice at least thirty (30) days prior to the cancellation, non-renewal or a material change in such insurance which materially adversely affects the rights of Katmai or the UC hereunder.

## 8. CONFIDENTIALITY

**8.1 Confidential Information**.

(a) **Confidential Information**. Each Party ("**Disclosing Party**") may disclose to the other Party ("**Receiving Party**"), and Receiving Party may acquire during the course and conduct of activities under this Agreement, certain proprietary or confidential information of Disclosing Party in connection with this Agreement. The term "**Confidential Information**" will mean all information of any kind, whether in written, oral, graphical, machine-readable or other form, whether or not marked as confidential or proprietary, which are transferred, disclosed or made available by Disclosing Party or at the request of Receiving Party, including any of the foregoing of Third Parties. Confidential Information of Katmai will include without limitation any information disclosed by Katmai's members of the PAC with respect to other opportunities for the Parties to collaborate.

(b) **Restrictions**. During the Term and for ten (10) years thereafter, Receiving Party will keep all Disclosing Party's Confidential Information in confidence with the same degree of care with which Receiving Party holds its own confidential information (but in no event less than a commercially reasonable degree of care). Receiving Party will not use Disclosing Party's Confidential Information except in connection with the performance of its obligations and exercise of its rights under this Agreement. Receiving Party has the right to disclose Disclosing Party's Confidential Information without Disclosing Party's prior written consent, to the extent and only to the extent reasonably necessary, to Receiving Party's Affiliates and their employees, subcontractors, consultants or agents who have a need to know such Confidential Information in order to perform its obligations and exercise its rights under this Agreement and who are required to comply with the restrictions on use and disclosure in this Section 8.1(b). Receiving Party will use diligent efforts to cause those entities and persons to comply with the restrictions on use and disclosure in this Section 8.1(b). Receiving Party assumes responsibility for those entities and persons maintaining Disclosing Party's Confidential Information in confidence and using same only for the purposes described herein. Upon termination of the Agreement (except for circumstances where Erasca's license rights in the Licensed Know-How survive termination), Erasca shall promptly return or destroy all Confidential Information disclosed by or on behalf of Katmai within fifteen (15) days.

(c) **Exceptions**. Receiving Party's obligation of nondisclosure and the limitations upon the right to use the Disclosing Party's Confidential Information will not apply to the extent that Receiving Party can demonstrate that the Disclosing Party's Confidential Information: (i) was known to Receiving Party or any of its Affiliates prior to the time of disclosure; (ii) is or becomes public knowledge through no fault or omission of Receiving Party or any of its Affiliates or Sublicensees; (iii) is obtained by Receiving Party or any of its Affiliates from a Third Party under no obligation of confidentiality to Disclosing Party; or (iv) has been independently developed by employees, subcontractors, consultants or agents of Receiving Party or any of its Affiliates without the use of Disclosing Party's Confidential Information, as evidenced by contemporaneous written records.

(d) **Permitted Disclosures**. Receiving Party may disclose Disclosing Party's Confidential Information to the extent (and only to the extent) such disclosure is reasonably necessary in the following instances:

(i) in order to comply with applicable Law (including any securities law or regulation or the rules of a securities exchange) or with a legal or administrative proceeding;

(ii) in connection with prosecuting or defending litigation, Regulatory Approvals and other Regulatory Filings and communications, and filing, prosecuting and enforcing Patent Rights in connection with Receiving Party's rights and obligations pursuant to this Agreement; and

(iii) in connection with exercising its rights hereunder, to its Affiliates; potential and future collaborators (as to Erasca only, and including Affiliates and Sublicensees of Erasca); potential and permitted acquirers or assignees; and potential investment bankers, investors and lenders;

(iv) ***provided, however,*** that (1) with respect to Sections 8.1(d)(i) or 8.1(d)(ii), where reasonably possible, Receiving Party will notify Disclosing Party of Receiving Party's intent to make any disclosure pursuant thereto sufficiently prior to making such disclosure so as to allow Disclosing Party adequate time to take whatever action it may deem appropriate to protect the confidentiality of the information to be disclosed, and (2) with respect to Section 8.1(d)(iii), each of those named people and entities are required to comply with the restrictions on use and disclosure in Section 8.1(b) (*Restrictions*) (other than collaborators, investment bankers, investors and lenders, which must be bound prior to disclosure by commercially reasonable obligations of confidentiality).

**8.2 Terms of this Agreement; Publicity**.

(a) **Restrictions**. The Parties agree that the terms of this Agreement will be treated as Confidential Information of both Parties, and thus may be disclosed only to the extent within the exceptions in Section 8.1(c) (*Exceptions*) or as permitted by Section 8.1(d) (*Permitted Disclosures*). Except as required by Law, each Party agrees not to issue any press release or public statement disclosing information relating to this Agreement or the transactions contemplated hereby or the terms hereof without the prior written consent of the other Party not to be unreasonably withheld (or as such consent may need to be obtained in accordance with Section 8.2(b) (*Review*) or 8.3(a) (*Right to Publish*)).

(b) **Review**. In the event either Party (the "**Issuing Party**") desires to issue a press release or other public statement disclosing information relating to this Agreement or the transactions contemplated hereby or the terms hereof, the Issuing Party will provide the other Party (the "**Reviewing Party**") with a copy of the proposed press release or public statement (the "**Release**"). The Issuing Party will specify with each such Release, taking into account the urgency of the matter being disclosed, a reasonable period of time within which the Receiving Party may provide any comments on such Release (but in no event less than five (5) business days). If the Receiving Party provides any comments, the Parties will consult on such Release and work in good faith to prepare a mutually acceptable Release. Either Party may subsequently publicly disclose

any information previously contained in any Release issued consistent with the terms of this Section 8.2. Subject to restrictions on use of names in Section 8.2(c) (*Use of Names*), Erasca, in its sole discretion, may make disclosures relating to the development or commercialization of the Licensed Products, including the results of research or any clinical trial conducted by Erasca or any health or safety matter related to the Licensed Products.

(c) **Use of Names**. Erasca acknowledges that nothing contained in this Agreement will be construed as conferring any right to Erasca, its Affiliates, or its Sublicensees to use in advertising, publicity or other promotional activities any name of the Investigators or any name, trade name, trademark or other designation of the UC (including a contraction, abbreviation or simulation of any of the foregoing). The UC may list Erasca's name as a licensee of technology from the UC without further identifying the technology. Unless required by law or unless the required authorizations are obtained (contact adminvc@ucla.edu for more information), the use by Erasca of the name "The Regents of the University of California" or the name of any campus of the University of California in advertising, publicity or other promotional activities is expressly prohibited.

**8.3 Publications.**

(a) **Right to Publish**. Subject to the provisions of Sections 8.1 (*Confidential Information*), 8.2 (*Terms of this Agreement; Publicity*) and 8.3(b) (*Publications by the UC*), each Party shall have the right to publish with respect to Licensed Products in publications, and to make scientific presentations on Licensed Products.

(b) **Publications by the UC**. To the extent Katmai has the right to review and/or approve any publications made by the Investigators with respect to Licensed Compounds or Licensed Products, Katmai will provide to Erasca the same right and shall not take any action (whether to approve or comment thereon) without Erasca's prior written consent, which shall not be unreasonably withheld.

## 9. TERM AND TERMINATION

**9.1 Term**. The term of this Agreement (the "**Term**") shall commence on the Effective Date, and unless terminated earlier as provided in this Article 9 (*Term and Termination*), shall continue in full force and effect until expiration of all payment obligations under this Agreement. Upon such expiration (but not any earlier termination) of this Agreement, the licenses granted to Erasca by Katmai under this Agreement to Exploit the Licensed Compound and Licensed Products shall be fully paid-up and irrevocable.

**9.2 Termination by Katmai**.

(a) **Breach.** Katmai will have the right to terminate this Agreement in full upon delivery of written notice to Erasca in the event of any material breach by Erasca of any terms and conditions of this Agreement, ***provided, however***, that such termination will not be effective if such breach has been cured within ninety (90) days (or, solely for breach of Erasca's payment obligations, forty-five (45) days) after written notice thereof is given by Katmai to Erasca specifying in reasonable detail the nature of the alleged breach; ***provided, however***, that if such

breach of non-payment obligations is not capable of being cured within such ninety (90) day period, such ninety (90) day period will be extended for an additional ninety (90) days so long as the breaching Party uses reasonable efforts to cure such breach during such additional ninety (90) day period. Notwithstanding the foregoing, in the event Erasca's material breach places Katmai at reasonable risk of breach of the UC License Agreement, and Katmai has received a notice of breach of the UC License Agreement related to such material breach of this Agreement by Erasca, then Erasca's cure period in this Section 9.2(a) shall not extend beyond the date that is ten (10) days prior to the end of any applicable cure period under the UC License Agreement that is specified in such notice of breach from the UC to Katmai.

**9.3 Termination by Erasca**.

(a) **Breach**. Erasca will have the right to terminate this Agreement upon delivery of written notice to Katmai in the event of any material breach by Katmai of any terms and conditions of this Agreement; ***provided, however***, that such termination will not be effective if such breach has been cured within thirty (30) days after written notice thereof is given by Erasca to Katmai specifying in reasonable detail the nature of the alleged breach.

(b) **Discretionary Termination**. Provided that Erasca is in full compliance with the Agreement, Erasca will have the right to terminate this Agreement at will, effective sixty (60) days after delivery of written notice to Katmai thereof.

**9.4 Termination Upon Bankruptcy**. Either Party may terminate this Agreement if, at any time, the other Party shall (a) file in any court or agency pursuant to any statute or regulation of any state, country or jurisdiction, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a receiver or trustee of that Party or of its assets, (b) propose a written agreement of composition or extension of its debts, (c) be served with an involuntary petition against it, filed in any insolvency proceeding, and such petition has not been dismissed within sixty (60) days after the filing thereof, (d) propose or be a party to any dissolution or liquidation, (e) make an assignment for the benefit of its creditors or (f) admit in writing its inability generally to meet its obligations as they fall due in the general course.

**9.5 Effects of Termination**.

(a) Upon termination by either Party under Section 9.2 (*Termination by Katmai*) or 9.3 (*Termination by Erasca*) or 9.4 (*Termination Upon Bankruptcy*), all rights and licenses granted by Katmai to Erasca in Article 2 (*License Grant*) will terminate, and Erasca and its Sublicensees will cease all use of Licensed Know-How and Licensed Patents and all Exploitation of the Licensed Compounds and Licensed Products, except to the extent required hereunder.

(b) Upon termination by either Party under Section 9.2 (*Termination by Katmai*) or Section 9.3 (*Termination by Erasca*) or by Katmai under Section 9.4 (*Termination Upon Bankruptcy*), Erasca shall, upon the written request of Katmai, (i) [***], (ii) [***], (iii) [***], (iv) [***], and (v) wind down, at Erasca's expense (unless such termination is pursuant to Section 9.3(a) (*Breach*)), any ongoing clinical trials, manufacturing activities, and other related research and development activities involving Licensed Product consistent with applicable Law and medical and ethical standards, and applicable agreements with Third Party independent contractors

engaged by or on behalf of Erasca in connection with such activities. If Katmai requests the foregoing actions in subsections (i) through (iv) and unless the Agreement is terminated for Erasca's material breach of this Agreement, the Parties will negotiate in good faith the financial terms pursuant to which such actions shall be conducted, provided that Erasca's performance of such actions shall not be conditioned upon the conduct or completion of such negotiations. If the Parties do not agree upon such terms within sixty (60) days after Erasca receives such request from Katmai, then the Parties shall submit all matters that are not yet agreed by the Parties for resolution by "baseball" arbitration as follows: The arbitration shall be administered by JAMS in Los Angeles, California pursuant to its Comprehensive Arbitration Rules and Procedures, except that (i) the arbitrator's decision on such matters shall be based upon what is commonly referred to as the "[***]" approach, whereby the arbitrator may [***], and (ii) the arbitrator will establish a time line for submission of the Parties' positions on such matters and adopt such other procedures to enable him or her to issue a decision within sixty (60) days after he or she is appointed.

**9.6 Survival**. In addition to the termination consequences set forth in Section 9.5 (*Effects of Termination*), the following provisions will survive termination or expiration of this Agreement: Articles 1 (*Definitions*), 3 (*Fees, Royalties and Payments*), 7 (*Indemnification*), 8 (*Confidentiality*) and 10 (*Miscellaneous*) and Sections 4.4 (*Enforcement*) through 4.6 (*Recovery*) (inclusive) (with respect to any action initiated prior to such expiration or termination) and Section 6.3 (*Disclaimer*), Section 9.1 (last sentence, only upon expiration of the Term), Section 9.5 (*Effects of Survival*), and this Section 9.6. Termination of this Agreement is neither Party's exclusive remedy and neither termination nor expiration of the Agreement will relieve the Parties of any liability or obligation which accrued hereunder prior to the effective date of such termination or expiration. Neither termination nor expiration of this Agreement will preclude either Party from pursuing all rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement or prejudice either Party's right to obtain performance of any obligation. All other rights and obligations will terminate upon expiration of this Agreement.

## 10. MISCELLANEOUS

**10.1 Entire Agreement; Amendment**. This Agreement and all Exhibits attached to this Agreement constitute the entire agreement between the Parties as to the subject matter hereof. All prior and contemporaneous negotiations, representations, warranties, agreements, statements, promises and understandings with respect to the subject matter of this Agreement are hereby superseded and merged into, extinguished by and completely expressed by this Agreement, including without limitation the Mutual Confidentiality Agreement between the Parties dated January 1, 2020 (with all information exchanged thereunder to be deemed Confidential Information disclosed pursuant to this Agreement). None of the Parties shall be bound by or charged with any written or oral agreements, representations, warranties, statements, promises or understandings not specifically set forth in this Agreement. No amendment, supplement or other modification to any provision of this Agreement shall be binding unless in writing and signed by all Parties.

**10.2 Section 365(n) of the Bankruptcy Code**. All rights and licenses granted under or pursuant to any section of this Agreement are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code, licenses of rights to "intellectual property" as defined under Section 101(35A) of the U.S. Bankruptcy Code to the extent permitted thereunder. The Parties shall retain and may fully exercise all of their respective rights and elections under the U.S. Bankruptcy Code. Upon the bankruptcy of any Party, the non-bankrupt Party shall further be entitled to a complete duplicate of (or complete access to, as appropriate) any such intellectual property, and such, if not already in its possession, shall be promptly delivered to the non-bankrupt Party, unless the bankrupt Party elects to continue, and continues, to perform all of its obligations under this Agreement.

**10.3 Independent Contractors**. The relationship between Erasca and Katmai created by this Agreement is solely that of independent contractors. This Agreement does not create any agency, distributorship, employee-employer, partnership, joint venture or similar business relationship between the Parties. Neither Party is a legal representative of the other Party, and neither Party can assume or create any obligation, representation, warranty or guarantee, express or implied, on behalf of the other Party for any purpose whatsoever. Each Party shall use its own discretion and shall have complete and authoritative control over its employees and the details of performing its obligations under this Agreement.

**10.4 Governing Law; Jurisdiction**. Any dispute, claim or controversy arising out of or relating to this Agreement or the breach, termination, enforcement, interpretation or validity thereof shall be submitted for resolution by a court of competent jurisdiction in the County of Los Angeles. This Agreement and its effect are subject to and shall be construed and enforced in accordance with the law of the State of California, without regard to its conflicts of laws, except as to any issue which depends upon the validity, scope or enforceability of any Licensed Patent, which issue shall be determined in accordance with the laws of the country in which such patent was issued.

**10.5 Notice**. All notices or communication required or permitted to be given by either Party hereunder shall be deemed sufficiently given if mailed by registered mail or certified mail, return receipt requested, or sent by overnight courier, such as Federal Express, to the other Party at its respective address set forth below or to such other address as one Party shall give notice of to the other from time to time hereunder. Mailed notices shall be deemed to be received on the third (3rd) business day following the date of mailing. Notices sent by overnight courier shall be deemed received the following business day.

If to Erasca:

Erasca, Inc.
10835 Road to the Cure #140
San Diego, CA 92121
Attention: Legal Department
Email: legal@erasca.com

If to Katmai:

Katmai Pharmaceuticals, Inc.

[***]
Attn: Bradley B. Gordon, President and CEO

With a copy to counsel (which shall not constitute notice):

Pillsbury Winthrop Shaw Pittman, LLP
12255 El Camino Real, Suite 300
San Diego, CA 92130
Attn: Richard Blaylock

**10.6 Compliance with Law; Severability**. Nothing in this Agreement shall be construed to require the commission of any act contrary to Law.

(a) **Compliance with Law**. If this Agreement or any associated transaction is required by Law to be either approved or registered with any Governmental Authority, Erasca will assume all legal obligations to do so. Erasca will notify Katmai if it becomes aware that this Agreement is subject to a United States or foreign government reporting or approval requirement. Erasca will make all necessary filings and pay all costs including fees, penalties and all other out-of-pocket costs associated with such reporting or approval process. Erasca agrees on behalf of itself, its Affiliates, and its Sublicensees to comply with all applicable Laws in performing its obligations hereunder and in its use, manufacture, sale or import of the Licensed Products. Erasca, its Affiliates, and its Sublicensees will observe all applicable Laws with respect to the transfer or provision of Licensed Products and related technical data to foreign countries, including, without limitation, the International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations. Erasca on behalf of itself, its Affiliates, and its Sublicensees agrees to manufacture and use Licensed Products in compliance with applicable Laws of a particular country for Licensed Products made outside the particular country in which such Licensed Products are used, sold or otherwise exploited.

(b) **Severability**. If any one or more provisions of this Agreement is held to be invalid, illegal or unenforceable, the affected provisions of this Agreement shall be curtailed and limited only to the extent necessary to bring it within the applicable legal requirements and the validity, legality and enforceability of the remaining provisions of this Agreement shall not in any way be affected or impaired thereby.

**10.7 Successors and Assigns.** Neither this Agreement nor any of the rights or obligations created herein may be assigned by either Party, in whole or in part, without the prior written consent of the other Party, not to be unreasonably withheld, conditioned or delayed except that either Party shall be free to assign this Agreement (a) to an Affiliate of such Party (for so long as such Affiliate remains an Affiliate) provided that such Party shall remain liable and responsible to the other Party for the performance and observance of all such duties and obligations by such Affiliate, or (b) in connection with any merger, consolidation or sale of such Party or sale of all or substantially all of the assets of the Party that relate to this Agreement (a "**Sale Transaction**"),

without the prior consent of the non-assigning Party. If a Party **[***]**for the prevention or treatment of any Indication within the **[***]**Field, then at the option of such Party (or its successor in interest), such product (a) **[***]**, or (b) **[***]** with respect to its development and commercialization within the **[***]** Field. If such acquired Party is Erasca, and this Section 10.7 applies to a does not elect (a) through (c), but instead **[***]**, within **[***]** (**[***]**) year after the effective date of such**[***]** , then such Party (or its successor in interest) shall **[***]** ($**[***]**). This Agreement shall bind and inure to the benefit of the successors and permitted assigns of the Parties hereto. Any assignment of this Agreement in contravention of this Section 10.7 shall be null and void.

**10.8 Sale Transaction or Katmai Acquisition**. In the event of (a) a Sale Transaction, or (b) the acquisition by Katmai of all or substantially all of the business of a Third Party (together with any entities that were Affiliates of such Third Party immediately prior to such acquisition, an "**Katmai Acquiree**"), whether by merger, sale of stock, sale of assets or otherwise (an "**Katmai Acquisition**"), intellectual property rights of the acquiring party in a Sale Transaction, if other than one of the Parties to this Agreement (together with any entities that were Affiliates of such Third Party immediately prior to such Sale Transaction, a "**Third Party Acquirer**"), or the Katmai Acquiree, as applicable, shall not be included in the technology licensed hereunder or otherwise subject to this Agreement unless such Third Party Acquirer or Katmai (as applicable) agrees in writing to license any of such intellectual property rights in connection with this Agreement or any other Agreement into which they may enter pursuant to Section 2.5 (*Right of First Negotiation*) or Section 2.6 (*Initial Focus; Back-up Compounds*).

**10.9 Waivers**. A Party's consent to or waiver, express or implied, of any other Party's breach of its obligations hereunder shall not be deemed to be or construed as a consent to or waiver of any other breach of the same or any other obligations of such breaching Party. A Party's failure to complain of any act, or failure to act, by the other Party, to declare the other Party in default, to insist upon the strict performance of any obligation or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof, no matter how long such failure continues, shall not constitute a waiver by such Party of its rights hereunder, of any such breach, or of any other obligation or condition. A Party's consent in any one instance shall not limit or waive the necessity to obtain such Party's consent in any future instance and in any event no consent or waiver shall be effective for any purpose hereunder unless such consent or waiver is in writing and signed by the Party granting such consent or waiver.

**10.10 No Third Party Beneficiaries**. Except as expressly provided with respect to Katmai Indemnified Parties and Erasca Indemnified Parties in Article 7 (*Indemnification*), the UC in Sections 4.4(a) (*Erasca Enforcement*), 4.6 (*Recovery*), 7.3 (*Insurance*), and 8.2(c) (*Use of Names*), and Katmai's Affiliates and licensees, nothing in this Agreement shall be construed as giving any Person, other than the Parties hereto and their successors and permitted assigns, any right, remedy or claim under or in respect of this Agreement or any provision hereof.

**10.11 Headings; Exhibits**. Article and Section headings used herein are for convenient reference only, and are not a part of this Agreement. All Exhibits are incorporated herein by this reference.

**10.12 Interpretation**. Except where the context otherwise requires, wherever used, the singular shall include the plural, the plural the singular, the use of any gender shall be applicable to all genders and the word "or" is used in the inclusive sense (and/or). The term "including" (or cognates thereof) as used herein shall mean including (or the cognate thereof), without limiting the generality of any description preceding such term. The term "will" as used herein means "shall." All references to a "business day" or "business days" in this Agreement means any day other than a day which is a Saturday, a Sunday or any day banks are authorized or required to be closed in the United States. The language in all parts of this Agreement shall be deemed to be the language mutually chosen by the Parties. The Parties and their counsel have cooperated in the drafting and preparation of this Agreement, and this Agreement therefore shall not be construed against any Party by virtue of its role as the drafter thereof.

**10.13 Force Majeure**. Neither Party shall be held liable or responsible to the other Party, nor be deemed to have defaulted under or breached this Agreement, for failure or delay in fulfilling or performing any term of this Agreement to the extent, and for so long as, such failure or delay is caused by or results from such causes beyond the reasonable control of the affected Party as fire, floods, embargoes, power shortage or failure, acts of war (whether war be declared or not), insurrections, riots, terrorism, civil commotions, strikes, lockouts or other labor disturbances, acts of God, or any acts, omissions, or delays in acting by any Governmental Authority or the other Party; ***provided, however***, that the affected Party promptly notifies the other Party in writing (and continues to provide monthly status updates to the other Party for the duration of the effect); and ***provided further, however***, that the affected Party shall use its Commercially Reasonable Efforts to avoid or remove such causes of non-performance and to mitigate the effect of such occurrence, and shall continue performance with reasonable dispatch whenever such causes are removed.

**10.14 Further Assurances**. Each Party shall execute, acknowledge, and deliver such further instructions, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

**10.15 Counterparts**. This Agreement may be executed in counterparts by a single Party, each of which when taken together shall constitute one and the same agreement, and may be executed through the use of facsimiles or .pdf or other electronically transmitted documents.

[*Signature page follows*]

**CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT IS BOTH (I) NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED.**

**IN WITNESS WHEREOF,** the Parties have executed this Agreement as of the date first set forth above.

**ERASCA, INC.**

By: /s/ Jonathan Lim
Name: Jonathan Lim
Title: President and CEO

**KATMAI PHARMACEUTICALS, INC.**

By: /s/ Brad Gordon
Name: Brad Gordon
Title: President, CEO

**EXHIBIT A**

**LICENSED KNOW-HOW**

[***]

**EXHIBIT B**

**LICENSED PATENTS**

[***]

**EXHIBIT C**

**JCN068 STRUCTURE**

[***]

**EXHIBIT D**

**UC LICENSE AGREEMENT**

(*See attached.*)

**CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT IS BOTH (I) NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED.**

# EXCLUSIVE LICENSE AGREEMENT

This exclusive license agreement ("**Agreement**") is made effective this **11th day of March, 2020** ("**Effective Date**"), by and between **The Regents of the University of California**, a California public corporation, having its statewide administrative offices at 1111 Franklin Street, 12th Floor, Oakland, CA 94607-5200 ("**The Regents**"), acting through The Technology Development Group of the University of California, Los Angeles ("**UCLA**"), located at **10889 Wilshire Boulevard, Suite 920, Los Angeles, CA 90095-**7191, and **Katmai Pharmaceuticals, Inc.** ("**Licensee**"), a Delaware corporation having a principal place of business at [***].

## RECITALS

**WHEREAS**, The Regents own certain rights in the Patent Rights which claim, and Associated Technology which pertains to, invention(s) arising out of the laboratory of **Dr. David Nathanson**, among others, in the course of research at UCLA;

**WHEREAS**, Licensee is a "small entity" as defined in 37 CFR 1.27(a)(2) for the purposes of determining whether The Regents is eligible for reduced patent fees;

**WHEREAS**, The Regents and Licensee previously entered into the following agreements: Letter of Intent, dated Sep. 23, 2019, UC Control No. 2020-30-0214 (which for clarity was entered into by one of the founders of Licensee); and

**WHEREAS**, Licensee desires a license to the Patent Rights and Associated Technology and The Regents is willing to grant such license pursuant to the provisions herein below.

**NOW, THEREFORE**, in consideration of the mutual promises contained herein and for other good and sufficient consideration, the receipt and adequacy of which is hereby acknowledged, the parties agree as follows:

## 1. DEFINITIONS

As used in this Agreement, the following terms, whether used in the singular or plural, will have the following meanings:

**1.1** "**Affiliate**" means any entity which, directly or indirectly, Controls Licensee, is Controlled by Licensee, or is under common Control with Licensee. "**Control**" means (i) having the actual, present capacity to elect a majority of the directors, or the power to direct greater than fifty percent (50%) of the voting rights entitled to elect directors, of such entity; or (ii) in any country where the local law will not permit foreign equity participation of a majority, the ownership or control (directly or indirectly) of the maximum percentage of such outstanding stock or voting rights permitted by local law. For clarity, an entity will be deemed an Affiliate of Licensee solely for the term during which it satisfies the foregoing definition.

**1.2** "**Associated Technology**" means The Regents' interest in technical information, copyrightable works, processes, procedures, compositions, devices, tangible materials, methods, formulas, protocols, techniques, software, designs, drawings and/or data that satisfies all of the following: (i) it exists as of the Effective Date of this Agreement, (ii) it was created by the inventors of the Patent Rights, and (iii) it is expressly identified in **Appendix E** of this Agreement. For the avoidance of doubt, Associated Technology (a) need not be, and The Regents will have no obligation to keep Associated Technology, confidential or as a trade secret, and (b) will not include anything that is created after the Effective Date unless and until the parties enter into a written amendment to this Agreement to add such Associated Technology to **Appendix E** (such as for example results from a sponsored research agreement).

**1.3** "**Commercially Reasonable Efforts**" means, with respect to any objective pertaining to the commercialization of a Licensed Product, the level of efforts and resources commonly used in the pharmaceutical industry by a company of similar size as Licensee (or Sublicensee as the case may be) to achieve such objective for a product that has a clinical indication and market potential similar to such Licensed Product and which is at a similar stage in development or product life as such Licensed Product taking into account, without limitation, commercial, legal and regulatory factors, target product profiles, product labelling, the regulatory environment and competitive market conditions and the sensitivity, specificity, and predictive values of Licensed Product in the Field of Use, and its proprietary position where such company is motivated to achieve such objective. For the avoidance of doubt, "Commercially Reasonable Efforts" shall not include (a) halting all commercialization of a Licensed Product for the purpose of pursuing another of Licensee's (or Sublicensee's as the case may be) products not covered by Regents' Patent Rights or (b) discontinuing all research, development, manufacturing, marketing and selling of such Licensed Product for a period of greater than twelve (12) consecutive months unless as a result of a Regulatory Cause.

**1.4** "**Field of Use**" means all fields of use.

**1.5** "**First Commercial Sale**" or "**FCS**" means the first sale of any Licensed Product by Licensee or a Sublicensee triggering payment of an Earned Royalty pursuant to this Agreement, following approval of its marketing by the appropriate governmental agency for the country in which the sale is to be made. When governmental approval is not required, "First Commercial Sale" means the first sale in that country.

**1.6** "**Licensed Product**" means any product or service (i) whose manufacture, use, sale, offer for sale, importation, lease, disposition or provision would, absent the license granted hereunder, constitute infringement (including direct, contributory or inducement) of any Valid Claims of the Patent Rights or (ii) developed, made or provided through the use of Associated Technology.

**1.7** "**Licensed Territory**" means all territories where Patent Rights exist or may come to exist, and with respect to Associated Technology worldwide.

**1.8** "**Net Sales**" means the total amount received or otherwise accrued for accounting purposes (including fair market value of any non-cash consideration) by Licensee or Sublicensee on account of the sale, lease, provision, transfer, or other disposition of a Licensed Product to a customer, after deduction of the following in accordance with U.S. Generally Accepted Accounting Principles ("**U.S. GAAP**") to the extent separately itemized in the applicable invoice, and not otherwise reimbursed, and allowed: (a) cash, trade or quantity discounts, rebates (including rebates similar to Medicare or other government rebates), and reimbursements, (b) any shipping costs, (c) allowances or credits because of rejected or returned products, (d) sales, use, tariff, import/export duties or other excise taxes imposed on particular sales, and value added taxes, and (e) allowances for uncollectible amounts; provided that no particular deduction may be accounted for more than once in the calculation of Net Sales. For clarity, with respect to Licensed Products sold that are submitted for payment to an insurance company, Medicare, Medicaid or any other governmental or nongovernmental body for which less than 100% of the charged amount is actually paid to Licensee or its Sublicensees, the Earned Royalty shall be applied to the amount reimbursed less any applicable exclusions provided above.

**1.9** If Licensee or Sublicensee makes any sales to any third party in a transaction in a given country that is not an arms'-length transaction, or is transferred to a third party without charge or at a discount, then Net Sales means the gross amount normally charged to other customers in arm's length transactions less the allowable deductions set forth above. The sale, provision, transfer, or other disposition of a Licensed Product between Licensee, its Affiliates and its Sublicensees when such Licensed Products are intended for subsequent sale to a customer shall not constitute Net Sales unless such Licensed Product is for end use by Licensee or such Affiliate or Sublicensee. In the case of transfers of Licensed Products between any of Licensee, Sublicensees, or their respective Affiliates for subsequent sale, lease or other transfer, then Net Sales will be the greater of the total amount invoiced or otherwise charged (including fair market value of any non-cash consideration) (i) for the transfer of the Licensed Products between Licensee, Sublicensees or Affiliates, as applicable, or (ii) for any subsequent sale of such Licensed Products in an arms'-length transaction.

i. "Combination Product" means a product that contains or uses a Licensed Product ("Licensed Component") and at least one other component ("Non-Licensed Component") that satisfies all the following conditions: (i) such Non-Licensed Component is not a Licensed Product, (ii) such Combination Product does not any infringe any other Valid Claims as compared to Licensed Component (iii) such Non-Licensed Component is sold separately and was individually approved by the FDA or an equivalent regulatory body, and (iv) the market price of such combined product is higher than the market price for such Licensed Component as a result of such combined product containing or using such Non-Licensed Component.

   If a Licensed Product is sold (or Licensed Product service provided) in the form of a Combination Product, then the Net Sales of such Combination Product shall be determined as follows: Net Sales of such Combination Product shall be multiplied by the fraction A/(A+B), where A is the average list price of such Licensed Component (over the last 2 year period) when sold separately in the country of sale of the Combination Product, and B is the average list price of the Non-Licensed Component(s) (over the last 2 year period) in the same country.

   If the Licensed Component is not sold separately, and the Non-Licensed Component is sold separately, or if neither Licensed or Non-Licensed Components of the Licensed Product are sold separately in the country of sale of the Licensed Product, the adjustment to Net Sales shall be determined by the parties in good faith prior to the date Licensee or a Sublicensee commences sale of such Licensed Product.

   Notwithstanding the foregoing, in no event will the proration factor set forth above be less than one half (0.5); provided that if the relative importance or value of Licensed Component of the Combination Product is less than one-half, The Regents agrees to negotiate in good faith with Licensee with respect to a lower proration factor.

   For clarity, in no event may Licensee apply the anti-royalty stacking provision set forth in Section 4.3 together with this Combination Product provision wherein the royalty owed to the third party with respect to the Licensed Product is in relation to the Non-Licensed Component. When both royalty stacking and Combined Product provisions are applied together, in no event will the owed royalty to the Regents be less than 50% than when absent such provisions.

ii. If Licensee believes a Licensed Product should be considered a Combination Product, but the Licensed Product does not satisfy the definition of Combination Product provided above, Licensee may provide The Regents with evidence supporting why such Licensed Product should be treated as a Combination Product; if the parties are unable to agree on an adjustment regarding such Licensed Product within thirty (30) days of The Regents' receipt of such supporting evidence, such Licensed Product will not be treated as a Combination Product. For clarity, if neither component is a Licensed Product on its own but their combination satisfies the Licensed Product definition, such a combination will not be treated as a Combination Product.

**1.10** "**Patent Action**" means the preparation, filing, prosecution and maintenance of patent applications and patents in the Patent Rights, including reexaminations, interferences, oppositions, inventorship related matters, and any other ex parte or inter partes matters (e.g., inter partes review petitions) originating or conducted in a patent office.

**1.11** "**Patent Rights**" means The Regents' interest in: (i) the patents and patent applications expressly identified in **Appendix A**; (ii) any divisions and continuations of any patent application or patent identified in subpart (i) above; (iii) any continuation-in-part applications of any patent application or patent identified in subparts (i) or (ii) above (but solely to the extent of those claims that are both entirely supported by the specification and entitled to the priority date of any patent application or patent identified in subparts (i) and (ii) above); (iv) any foreign counterparts of a patent application or patent identified in subparts (i)-(iii) above; and (v) any patents issuing from any patent application identified in subparts (i)-(iv), including reissues, substitutions and patent extensions.

**1.12** "**Regulatory Cause**" means a delay in the completion of a regulatory stage Development Milestone that is directly caused by the FDA (or other applicable regulatory authority) either (a) putting a clinical hold on a clinical study involving a Licensed Product that Licensee or Sublicensee is developing pursuant to this Agreement, or (b) requiring additional data relating to a Licensed Product that Licensee or a Sublicensee is developing pursuant to this Agreement was outside that agreed upon with the FDA (or other applicable regulatory authority) in any pre-submission meeting in a material or significant respect and is based on FDA (or other applicable regulatory authority) guidelines or regulations and such guidelines or regulations were only implemented after initiation of a human clinical trial for such Licensed Product, provided, however, that with respect to (a)-(b), (i) such delay came to exist despite Licensee's use of Commercially Reasonable Efforts to avoid such delay, (ii) such delay is not due in any material respect to Licensee's actions or inactions that were counter to the guidance provided to Licensee or otherwise published by the FDA (or other applicable regulatory authority), and (iii) such delay is not due in any material respect to Licensee's failure to provide data to the FDA (or other applicable regulatory authority) in a form, amount and quality commonly used in the pharmaceutical industry or to undertake preclinical and clinical development in a form and of a quality that would be commonly used in the pharmaceutical industry.

**1.13** "**Sublicensing Income**" means any consideration (including, without limitation, any licensing or optioning fees, or license maintenance fees, or milestone payments, and fair market value of any non-cash consideration) received by, or payable to, Licensee from any Sublicensee, under or on account of a Sublicense. Sublicensing Income excludes earned royalty payments but only to the extent such royalty payments are calculated using the same sales that generated payment of an Earned Royalty to The Regents pursuant to Section 4.3. Sublicensing Income also excludes (a) income received by Licensee as payment or reimbursement for research services

rendered after execution of the Sublicense at fair market value conducted by or for Licensee, including costs of materials, equipment or clinical testing to the extent documented, invoiced and actually paid, (b) amounts received by the Licensee as the purchase price, at fair market value, for equity securities (including stock of whatever class or series, and including the purchase price for warrants and the exercise price under such warrants, or as convertible debt, and the like) of the Licensee; and (c) reimbursements to the Licensee of out-of-pocket patent prosecution costs actually incurred by the Licensee (provided amounts received in excess of the Patent Costs Licensee has paid to The Regents pursuant to this Agreement will be treated as Sublicensing Income). For clarity, any amounts received in excess of fair market value (in relation to (a) and (b)) or the amount of costs actually incurred by Licensee (in relation to (c)) will be deemed to constitute Sublicensing Income.

The Regents acknowledges Licensee (or its Sublicensees) may enter into agreements or transactions with a Sublicensee at fair market value that are distinct and independent from the Sublicense they separately enter into with such Sublicensee, e.g., debt financing agreement ("**Independent Deal**"). So long as such Independent Deal does not dilute, divert, conceal or misrepresent the amount of consideration paid to the Licensee (or such Sublicensee) in consideration for a Sublicense, and is not in exchange for any right or license granted in relation to the Patent Rights, The Regents agree consideration received pursuant to such Independent Deal will not constitute Sublicensing Income.

**1.14** "**Valid Claim**" means (a) any issued claim in the Patent Rights that has not irrevocably: (i) expired; (ii) been disclaimed, cancelled or superseded, or if cancelled or superseded, has not been reinstated; and (iii) been revoked, held invalid, or otherwise declared unenforceable or not allowable by a tribunal or patent authority of competent jurisdiction over such claim in such country, in all cases from which no further appeal has or may be taken, and (b) any claim of a pending patent application in the Patent Rights that has not been irrevocably abandoned or finally rejected without the possibility of appeal or re-filing, provided that a claim within a patent application that has been pending for more than [***] from the date of issuance of the first substantive office action (e.g., a restriction requirement will not be deemed substantive) received with respect to such claim on a per country basis shall no longer be a Valid Claim unless and until such claim becomes an issued claim of an issued patent, in which case such claim will be deemed a Valid Claim for the purposes of this Agreement retroactively from the date it ceased being a Valid Claim.

## 2. GRANT

**2.1 License.** Subject to the limitations and other terms and conditions set forth in this Agreement, including the limitations outlined in Section 2.2 below, The Regents hereby grants to Licensee an exclusive license under the Valid Claims of the Patent Rights in the Licensed Territory, and a nonexclusive license with respect to the Associated Technology, to make, use, sell, offer for sale and import Licensed Products in the Field of Use.

The licenses granted to Licensee hereunder shall automatically extend to Licensee's Affiliates, but only during the period such entity satisfies the definition of Affiliate. As a licensee of Patent Rights under this Agreement, Affiliates shall have all of the same rights and obligations, financial and otherwise, that Licensee has under this Agreement. Acts, omissions and liabilities of an Affiliate are considered to be those of Licensee under this Agreement and Licensee is responsible and liable for all such acts, omissions and liabilities, including without limitation payment to The Regents of royalties or other consideration due to The Regents hereunder.

**2.2 License Conditions.** The license granted in Section 2.1 is subject to the following:

A. The Regents expressly reserves the right for itself and other nonprofit and academic research institutions to use Patent Rights and Associated Technology for (i) educational and non-commercial research purposes (which shall be construed to include clinical research and research sponsored by commercial entities), and (ii) to publish results arising therefrom. For clarity, so long as Licensee's license to the Patent Rights remains exclusive, The Regents will not have the right to grant a license to the Patent Rights to another commercial entity that conflicts with the license granted to Licensee pursuant to Section 2.1.

B. The Regents' grant to the U.S. Government of a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the invention claimed by the Patent Rights throughout the world. Licensee agrees (and will require all Sublicensees to agree in writing) that, unless a valid waiver is obtained from the applicable funding agency at Licensee's written request, Licensee's exclusive right to use or sell any Licensed Products in the United States is subject to the obligation that any Licensed Products will be manufactured substantially in the United States, to the extent required by 35 U.S.C § 204 and applicable regulations of Chapter 37 of the Code of Federal Regulations.

## 3. SUBLICENSES

**3.1 Permitted Sublicensing.** The Regents also grants to Licensee the right to sublicense to third parties through four tiers, provided that Licensee may request that The Regents approve additional tiers, which approval will not be unreasonably withheld, and any Sublicense granted between Licensee and its Affiliates or independent contractors, including contract research, development and manufacturing organizations (CRO's, CMO's), will not count as a "tier" for the purposes of calculating the four-tier limitation) the rights licensed to Licensee hereunder so long as Licensee's rights remain exclusive (each, a "**Sublicense**" and each such third party that receives a Sublicense "**Sublicensee**"). All Sublicenses must be in writing and will be subject to, and contain terms consistent with, the terms in this Agreement, including, without limitation, the provisions contained in Articles 2.2 (License Conditions), 3 (Sublicenses), 4.4 (Validity Challenge), 7 (Books and Records), 9 (Use of Names and Trademarks), 10 (Limited Warranty and Liability), 12 (Patent Marking), 13 (Patent Infringement), 14 (Indemnification), 18 (Compliance with Laws), etc. For clarity, Licensee will be obligated to pay Earned Royalties on its Sublicensees' Net Sales irrespective of whether its Sublicensees pay royalties to Licensee. For the purposes of this Agreement, the operations of all Sublicensees will be deemed to be the operations of Licensee, for which Licensee will be responsible and liable.

**3.2 Sublicense Requirements.** Licensee must provide The Regents with a copy of each Sublicense issued, including any agreements and amendments executed in relation thereto, within thirty (30) days of its execution, and shall collect and guarantee payment of all payments, due to The Regents as a result of such Sublicenses.

**3.3 Sublicenses Upon Termination.** If this Agreement is terminated for any reason, at the option of the applicable Sublicensee, all outstanding Sublicenses not in default will be assigned by Licensee to The Regents (to the extent The Regents is legally, contractually and, per its policies (is able to accept such assignment (the phrase "policies" understood as broad, Regents-wide restrictions on assignments to certain classes of companies) provided that such assignment shall not place the Regents in a conflict of commitment**). Prior to any such assignment such Sublicensees shall furnish to The Regents the completed contact information form attached hereto as **Appendix C**. The assigned Sublicenses will remain in full force and effect with The Regents as the licensor or sublicensor instead of Licensee, but the duties of The Regents under the assigned Sublicenses will not be greater than the duties of The Regents under this Agreement, and the rights of The Regents under the assigned

Sublicenses will not be less than the rights of The Regents under this Agreement, including all financial consideration and other rights of The Regents. The Regents may, at The Regents' sole discretion, amend such outstanding Sublicenses to contain the terms and conditions found in this Agreement. **Notwithstanding the phrase "contractually" or "per its policies," if the Sublicensee is a reputable pharmaceutical or biopharmaceutical company whose stock is traded on a public exchange in either the U.S. or Europe and who had either annual worldwide revenues of at least one hundred million dollars ($100,000,000) in the calendar year prior to the calendar year in which such assignment is to take place or unrestricted capital of at least two hundred million dollars ($200,000,000) as of the date of assumption, then The Regents agree that assumption of the applicable Sublicense will not be withheld on this basis alone. For the avoidance of doubt, Licensee may also request in writing that The Regents pre-approve a given proposed Sublicensee as constituting an entity that The Regents would be able to accept per this provision (such assignee a "**Pre-Approved Assignee**"), and The Regents may, in its sole disretion, agree to provide such written pre-approval to Licensee.

## 4. CONSIDERATION

**4.1 License Fee.** In partial consideration for the License, Licensee will pay to The Regents a license issue fee of [***] within sixty (60) days of the Effective Date. This fee is non-refundable and is not an advance against royalties.

**4.2 License Maintenance Fee.** Licensee must pay to The Regents the license maintenance fee set forth below beginning on the [***]-year anniversary date of the Effective Date and continuing annually on each anniversary date of the Effective Date ("**License Maintenance Fee**") until Licensee achieves its First Commercial Sale and commences paying Minimum Royalties hereunder. License Maintenance Fees are non-refundable and are not an advance against royalties.

| | |
|---|---|
| [***] | [***] |
| [***] | [***] |

**4.3 Earned Royalty.** Licensee must pay to The Regents the following royalty for the corresponding Net Sales amounts calculated annually (each an "**Earned Royalty**"):

| **Net Sales (applied on a per calendar year basis)** | **Royalty rate** |
|---|---|
| Up to [***] | [***] |
| Between [***] and [***] | [***] |
| Between [***] and [***] | [***] |
| Above [***] | [***] |

For clarity, the Net Sales taken into account for royalty rate tier determination are with respect to total global amount of Net Sales. For example, if global Net Sales exceed One Hundred Million Dollars in a calendar year, Net Sales above that amount will incur a higher royalty rate, regardless of where the sale has occurred.

This royalty rate shall be reduced to [***] of Net Sales with respect to Licensed Products that are Licensed Products per Section 1.6(ii), but are not Licensed Products per Section 1.6(i). Earned Royalties hereunder shall be computed on a quarterly basis for the quarters ending March 31st, June 30th, September 30th, and December 31st of each calendar year and shall be due and payable at the same time the royalty reports are due under Section 6.2 for such quarter.

If Licensee (or any Sublicensee or any Affiliate, as applicable) after the Effective Date (and for clarity not with respect to any third party licenses it has executed prior to the Effective Date) is obligated to pay a non-Affiliate third party (other than The Regents) royalties on net sales ("Third Party Royalty") in consideration for patent rights owned or controlled by such non-Affiliate third party without a license to which Licensee (or a Sublicensee, or an Affiliate as applicable) may in Licensee's (or such Sublicensee's or Affiliate's, as applicable) judgment reasonably be considered to infringe or misappropriate such third party intellectual property rights in order to use or practice the Patent Rights, then Licensee will have the right, upon Licensee's (or a Sublicensee's, or an Affiliate's as applicable), execution of a license with such third party for such third party intellectual property rights, to credit fifty percent (50%) of any earned royalty payment made to such third party in any given year in consideration for such third party intellectual property rights, against the Earned Royalty due The Regents under this Agreement, provided that:

a) The sum of such Third Party Royalty rate and the Earned Royalty rate set forth in this Agreement is equal to or greater than [***] of Net Sales in the affected portion of the applicable Licensed Territory;

b) On an ongoing basis and prior to reduction of any Earned Royalty due The Regents under this Agreement for a given calendar quarter, Licensee first provides written evidence to The Regents of Licensee's (or any Sublicensee's, or Affiliate's as applicable), royalty obligations to such third party for such calendar quarter demonstrating that such royalty obligation is in consideration for patent rights owned or controlled by such non-Affiliate third party without a license to which Licensee (or any Sublicensee, or Affiliate of Licensee or any Sublicensee as applicable), may reasonably be considered to infringe or misappropriate such third party patent rights in the manufacture, use, import, offer for sale, or sell of a Licensed Product; and

c) In no event shall royalties or other amounts due to The Regents under this Agreement in any reporting period be so reduced to less than [***] of the amount that would otherwise be due The Regents under this Agreement; and

d) In no event may may Licensee apply the anti-royalty stacking provision set forth in this Article 4.3 of this Agreement to the Net Sales of a Licensed Product wherein the royalty owed to the third party with respect to such Licensed Product is in relation to the Combination Product Component of the Licensed Product.

**4.4 Validity Challenge.** If Licensee or a Sublicensee, itself or through a third party, institutes any proceeding that contests the validity of any Patent Right during the term of this Agreement, Licensee agrees to pay to The Regents, directly and not into any escrow or other account, all royalties and other amounts due in view of Licensee's and its Sublicensees' activities under this Agreement during the period of challenge and The Regents' attorneys fees in defending such action. Should the outcome of such contest determine that any challenged patent claim is valid, Licensee (or its Sublicensee, as applicable) will thereafter, and for the remaining term of this

Agreement, pay a royalty rate of [***] the royalty rate specified above and the entirety of The Regents' legal (including attorney) fees and costs incurred during such proceeding. For clarity, in the case wherein a Sublicensee challenges the validity of the Patent Rights, so long as Licensee did not directly or indirectly induce, encourage, or otherwise assist such Sublicensee in its challenge of the Patent Rights, then Licensee's royalty rate will not be tripled per the foregoing sentence and Licensee will not be obligated to pay for The Regents' attorneys fees in defending such action against a Sublicensee (provided that, if the challenging Sublicensee fails to do so Licensee must terminate the applicable Sublicense).

**4.5 Minimum Annual Royalty.** Licensee must pay to The Regents the following minimum annual royalties ("**Minimum Annual Royalties**") on or before February 28 of each calendar year ("**CY**") following the calendar year in which Licensee achieves a First Commercial Sale and continuing for the remaining term of this Agreement thereafter. The Minimum Annual Royalty will be credited against the Earned Royalty due and owing with respect to Net Sales made during the calendar year in which such Minimum Annual Royalties were paid.

| | |
|---|---|
| [***] | [***] |
| [***] | [***] |

**4.6 Sublicensing Income.** Licensee will pay to The Regents the following shares of all Sublicensing Income:

(i) [***] of all Sublicensing Income received with respect to any Sublicenses executed prior to the first human patient being dosed with a Licensed Product in a phase 1 clinical trial;

(ii) [***] of all Sublicensing Income received with respect to any Sublicenses executed concurrently with or after the first human patient is dosed in a phase 1 clinical trial but before the first patient is dosed with a Licensed Product in a phase 2 clinical trial; and

(iii) [***] of all Sublicensing Income received with respect to any Sublicenses executed concurrently with or after the first human patient is dosed with a Licensed Product in a phase 2 clinical trial.

Sublicensing Income may not be prorated when the Patent Rights are bundled with other intellectual property, without The Regents' prior written consent. For the avoidance of doubt, all payments and consideration that Licensee or a Sublicensee receives as a result of its exercise of its rights to the Patent Rights will be accounted for by Licensee either in the form of an Earned Royalty under Section 4.3 or as Sublicensing Income under this Section

**4.7 Milestone Payments.** For each Licensed Product, Licensee must make the following payments ("**Milestone Payments**") to The Regents within thirty (30) days of Licensee (or its Affiliate or Sublicensee) achieving the Development Milestone indicated below. For purposes of clarity such Milestone Payments are due from Licensee irrespective of whether the associated Development Milestone listed below was reached by Licensee itself or by a Sublicensee or by a third party acting on behalf of Licensee or a Sublicensee.

(i) [***] upon achieving Development Milestone defined by Section 5.2.D.

(ii) [***] upon achieving the Development Milestone defined by Section 5.2.E.

(iii) [***] upon approval of Licensed Product by EMA.

**4.8 Payment Terms.** All consideration due The Regents will be payable and will be made in United States dollars by check payable to "The Regents of the University of California" or by wire transfer to an account designated by The Regents, provided The Regents may assign its interest in any consideration it is to receive pursuant to this Agreement to another entity. Licensee is responsible for all bank or other transfer charges. When Licensed Products are sold for monies other than United States dollars, the Earned Royalties and other consideration will first be determined in the foreign currency of the country in which such Licensed Products were sold and then converted into equivalent United States dollars. The exchange rate will be the average exchange rate quoted in the *Wall Street Journal* during the last thirty (30) days of the reporting period.

(i) **Taxes**. Any tax for the account of The Regents required to be withheld by Licensee under the laws of any foreign country must be promptly paid by Licensee for and on behalf of The Regents to the appropriate governmental authority. Licensee will use its best efforts to furnish The Regents with proof of payment of any tax. Licensee is responsible for all bank transfer charges. All payments made by Licensee in fulfilment of The Regents' tax liability in any particular country will be credited against fees or royalties due The Regents for that country.

(ii) **Interest**. In the event that monies are not received by The Regents when due, Licensee will pay to The Regents interest at a rate of ten percent (10%) simple interest per annum. Such interest will be calculated from the date payment was due until actually received by The Regents. Such accrual of interest will be in addition to and not in lieu of, enforcement of any other rights of The Regents due to such late payment.

**4.9 Participation Rights.** If Licensee proposes to sell any equity securities or securities that are convertible into equity securities of Licensee, then The Regents and/or its Assignee (as defined below) will have the right to purchase up to [***]of the securities issued in each offering on the same terms and conditions as are offered to the other purchasers in each such financing. Licensee will provide thirty (30) days advance written notice of each such financing, including reasonable detail regarding the terms of the financing. The term "Assignee" means (a) any entity to which The Regents' participation rights under this Section have been assigned either by The Regents or another entity, or (b) any entity that is controlled by The Regents. This paragraph shall survive the termination of this Agreement.

**4.10 Equity.** As additional consideration for this Agreement, Licensee shall, within thirty (30) days of The Regents' execution and delivery to Licensee of a Stock Issuance Agreement in substantially the form attached hereto as Appendix D, issue and deliver to The Regents a number of shares of common stock of Licensee as set forth in the Stock Issuance Agreement.

**4.11 Reimbursement for material transfer.** Licensee will also reimburse The Regents for any reasonable out of pocket costs incurred in relation to preparing and delivering any materials constituting a part of Associated Technology within thirty (30) days of receipt of an invoice from The Regents.

**4.12** As part of its public mission to bring products to the marketplace, UCLA strives to enable underserved populations, which have limited access to adequate quantities of medical innovations arising from UCLA's laboratories, to have access to these innovative products. Licensees are encouraged to consider these populations' interests when marketing and selling Licensed Products.

## 5. COMMERCIAL DILIGENCE

**5.1 Development of Licensed Products.** Licensee, upon execution of this Agreement, will use Commercially Reasonable Efforts to (a) diligently proceed with the development and manufacture (directly or through a contracted third party) of Licensed Products and (b) after obtaining applicable regulatory approval, market and sell the Licensed Products in quantities sufficient to meet the market demands therefor. Licensee or a Sublicensee will use Commercially Reasonable Efforts to obtain all necessary governmental approvals in each country where Licensed Products are manufactured, used, sold, offered for sale or imported.

**5.2 Development Milestones.** On or before the dates indicated below, Licensee will achieve each of the following development milestones with respect to a Licensed Product ("**Development Milestones**"). If Licensee fails to achieve a Development Milestone by the deadline set forth below, then The Regents has the right and option, at its sole discretion, to either terminate this Agreement or reduce Licensee's exclusive license to a nonexclusive license, under the terms set forth in Section 8 (LIFE OF THIS AGREEMENT) including The Regents obligation to first provide notice and the opportunity to cure as specified in Section 8.4. This right, if exercised by The Regents, supersedes the rights granted in Section 2 (GRANT).

A. Submit to the U.S. Food and Drug Administration (FDA) (or other applicable regulatory authority) an Investigational New Drug application for a Licensed Product by [***] .

B. Dose a first human patient in a phase 1a clinical trial by [***].

C. Dose a first human patient in a phase 1b or phase 2 clinical trial by [***].

D. Dose a first human patient in a phase 3 clinical trial by [***].

E. Receive FDA (or other applicable regulatory authority) approval of Licensed Product by [***].

F. Achieve a First Commercial Sale of a Licensed Product within [***] after receipt of FDA approval.

If the completion of any of the Development Milestones above is delayed beyond the corresponding deadline solely because of the existence of a Regulatory Cause, and Licensee sends to The Regents a request in writing for an extension that sets forth the basis for the delay and provides copies of documents and correspondence from the FDA supporting Licensee's assertion that a Regulatory Cause exists, then The Regents will consider in good faith consenting, which consent will not be unreasonably withheld, to an extension of such Development Milestone once for a maximum of a [***] , or so long as such Regulatory Cause exists, whichever is shorter. Notwithstanding the foregoing, however, if Licensee provides The Regents with a written representation from its legal counsel that such Regulatory Cause would similarly prevent any other potential licensee of the Patent Rights from further developing Licensed Products, then so long as Licensee is in good standing with respect to its obligations owed hereunder and, in good faith, requests an extension, The Regents agrees to extend such [***] cap to a total of [***], which may be (upon request from Licensee) further extended by The Regents in its sole discretion.

If the completion of any of the Development Milestones above is delayed beyond the corresponding deadline solely because of negative study results pertaining to the safety or efficacy of a Licensed Product, and Licensee (or its Sublicensee) elects to terminate development of a Licensed Product and restart development using a backup compound (**"Backup Cause"**), then upon a written request by Licensee to The Regents setting forth the basis for the delay, the parties agree to negotiate in good faith for a period of [***]to amend this Agreement with a new Development Milestone timeline ,usual and customary for the development of drug candidates of a comparable drug class and for a pharmaceutical or biopharmaceutical company of Licensee's or Sublicensee's comparable resources and expertise.

If the Licensee in unable to meet a due Development Milestone for any reason other than Regulatory Cause, Licensee may extend the Development Milestones deadlines set forth above in [***] increments, but not more than [***]in total across all Development Milestones, by making a [***] to The Regents for the first [***] Development Milestones deadline extension, and [***] payment for the [***]each, with the [***]extension being the last allowable extension (each such milestone extension a "**Paid Milestone Extension**"). In the event of any extension, the deadlines for meeting any later occurring Development Milestones will be similarly extended.

## 6. PROGRESS AND ROYALTY REPORTS

**6.1 Progress Reports.** Beginning on September 30 2020, and continuing semiannually thereafter, Licensee will complete a progress report form. In addition to and conjunction with such completed form, Licensee will provide a detailed written report to The Regents conveying Licensee's (and any Sublicensees') activities related to this Agreement. Such report will include information sufficient to enable The Regents to satisfy reporting requirements of the U.S. Government and to ascertain progress by Licensee toward meeting this Agreement's diligence requirements set forth in Section 5 (Commercial Diligence). Each report will contain at least the following information: (a) progress toward commercialization of Licensed Products, including work completed, (b) key scientific discoveries, (c) summary of work in progress, (d) current schedule of anticipated events or milestones, (e) market plans for introduction of Licensed Products, and (f) significant corporate transactions involving Licensed Products. Within thirty (30) days of The Regents' request, Licensee will provide The Regents sufficient documented evidence from its (or its Sublicensees, as applicable) books and records to sufficiently support any assertions made by Licensee in its progress reports.

**6.2 Royalty Reports.** Beginning with the First Commercial Sale and continuing for the life of this Agreement, Licensee will make quarterly royalty reports to The Regents on or before each February 28, May 31, August 31 and November 30 of each year. Each royalty report will cover Licensee's most recently completed calendar quarter and will at least the information identified in the Royalty Report attached hereto as **Appendix B**.

**6.3 Entity Status.** Licensee will keep The Regents informed of the large/small business entity status (as defined by the United States Patent and Trademark Office) of itself and its Sublicensees.

## 7. BOOKS AND RECORDS

**7.1 Accounting.** Licensee must keep, and will cause its Sublicensees to keep, accurate financial and development books and records showing all Licensed Products in development, manufactured, used, sold, leased, transferred, provided, or otherwise disposed of, and any other records necessary to affirm compliance with the terms of this Agreement. Books and records must be preserved for at least six (6) years from the date of the royalty payment to which they pertain.

**7.2 Auditing.** Books and records kept in accordance with Section 7.1 must be open to inspection by an accounting firm selected by The Regents at reasonable times and at a U.S. location, no more than one time in any twelve (12) month period, and solely to determine the accuracy of the royalty reports and other amounts owed pursuant to this Agreement. The Regents will bear the fees and expenses of examination but if an error in royalties of more than seven percent (7%) of the total royalties due for any year is discovered in any examination then Licensee will bear the fees and expenses of that examination and will remit such underpayment to The Regents within thirty (30) days of the examination results.

## 8. LIFE OF THIS AGREEMENT

**8.1 Term.** Unless otherwise terminated by operation of law, Section 8.2 (Bankruptcy), or by acts of the parties in accordance with the terms of this Agreement, this Agreement will remain in effect with respect to the Patent Rights from the Effective Date until the expiration or abandonment of the last of the Patent Rights licensed

hereunder with respect to the Patent Rights ("**Patent Rights Term**"), and with respect to the Associated Technology from the Effective Date until the earlier of (i) twenty (20) years after the FCS of a Licensed Product or (ii) ten (10) years after the end of the Patent Rights Term ("**Associated Technology Term**"). The termination or expiration of this Agreement will not relieve Licensee of its obligation to pay any fees, royalties or other payments owed to The Regents at the time of such termination or expiration and will not impair any accrued right of The Regents, including the right to receive Earned Royalties in accordance with Section 4 (Consideration). Licensee may terminate its obligations under this Agreement with respect to Associated Technology prior to the end of the Associated Technology Term only if it certifies in writing that it has destroyed and ceased all use of the Associated Technology, as well as sale or use of any products or results incorporating and/or made through the use of the Associated Technology. Upon natural expiration (i.e., not in the case of earlier termination) of the end of the Associated Technology Term, and so long as Licensee is in good standing with respect to its obligations under this Agreement, Licensee's license to the Associated Technology granted pursuant to Section 2.1 will convert to paid-up and royalty free.

**8.2 Bankruptcy.** In the event of a bankruptcy or insolvency, assignment of this Agreement is only permitted to a party that can provide adequate assurance of future performance, including diligent development and sales of Licensed Product.

**8.3 Surviving Provisions.** Any termination or expiration of this Agreement will not affect the rights and obligations set forth in at least the following Sections, as well as any other provisions which by their nature would be reasonably expected to survive termination: Sections 1 (Definitions); 3.3 (Sublicense Termination); 4.10 (Equity); 7 (Books and Records); 8.7 (Grant Back); 9 (Use of Names and Trademarks); 10 (Limited Warranty and Liability); 14 (Indemnification); 17 (Governing Law); and 19 (Confidentiality).

**8.4 Termination by The Regents.** If Licensee fails to perform or violates any term of this Agreement or fails to timely pay any amount when due then The Regents may give written notice of default ("**Notice of Default**") to Licensee. If Licensee fails to repair the default within ninety (90) days of the effective date of Notice of Default, The Regents may terminate this Agreement and its licenses by a second written notice ("**Notice of Termination**"). If a Notice of Termination is sent to Licensee, this Agreement will automatically terminate on the effective date of that notice.

**8.5 Termination by Licensee.** Licensee may terminate this Agreement at any time by providing a notice of termination to The Regents with a statement explaining the reason for termination, which termination will be effective sixty (60) days from the date such termination notice is sent by Licensee.

**8.6 Disposition of Licensed Products on Hand Upon Termination.** Upon termination of this Agreement, unless this Agreement was terminated by The Regents based on Licensee's failure to timely pay financial obligations owed pursuant to this Agreement, Licensee may continue to sell any previously made Licensed Products during the six (6) month period immediately following the effective date of the termination of this Agreement; provided that, in such case, Licensee must continue to fulfill all obligations associated therewith as if this Agreement had not terminated, including the obligation to pay Earned Royalties on the sale of such Licensed Products and submit royalty reports per the due dates required under this Agreement.

**8.7 Grant Back.** Upon termination of this Agreement by The Regents for cause as a result of Licensee's bankruptcy or insolvency or because Licensee ceases to exist, Licensee shall grant The Regents a non-exclusive, irrevocable, perpetual, fully paid-up, sublicensable, worldwide license to all inventions, products, materials, methods, processes, techniques, know-how, data and information discovered or developed in the course of or arising from Licensee's development and commercialization of the Patent Rights ("**Developments**") under this Agreement, but solely to the extent Licensee is legally and contractually able to grant such a license and use of such Developments is necessary in order to practice the Valid Claims of the Patent Rights.

## 9. USE OF NAMES AND TRADEMARKS

**9.1 Use of Name.** Nothing contained in this Agreement will be construed as conferring any right to either party to use in advertising, publicity or other promotional activities any name, trade name, trademark or other designation of the other party (including a contraction, abbreviation or simulation of any of the foregoing). The Regents may list Licensee's name as a licensee of technology from The Regents without further identifying the technology. Unless required by law or unless the required authorizations are obtained (contact adminvc@ucla.edu for more information), the use by Licensee of the name "The Regents of the University of California" or the name of any campus of the University of California in advertising, publicity or other promotional activities is expressly prohibited.

## 10. LIMITED WARRANTY AND LIABILITY

**10.1** The Regents warrants to Licensee that it has the lawful right to grant this license. Except as expressly set forth in this Agreement, this license and the associated Patent Rights and Licensed Products and Associated Technology are provided by The Regents **WITHOUT WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. THE REGENTS MAKES NO EXPRESS OR IMPLIED REPRESENTATION OR WARRANTY THAT USE OR COMMERCIALIZATION OF THE PATENT RIGHTS OR LICENSED PRODUCTS OR ASSOCIATED TECHNOLOGY WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK OR OTHER RIGHTS**.

**10.2** This Agreement does not express or imply (a) a warranty or representation as to the validity, enforceability, or scope of any Patent Rights or Associated Technology; (b) a warranty or representation that anything made, used, sold, offered for sale, imported or otherwise exploited under any license granted in this Agreement is or will be free from infringement of patents, copyrights, or other rights of third parties; (c) an obligation on behalf of The Regents to bring or prosecute actions or suits against third parties for patent infringement; (d) by implication, estoppel or otherwise, confer any license or rights under any patents or other rights of The Regents other than Patent Rights, regardless of whether such patents are dominant or subordinate to Patent Rights; or (e) obligate The Regents to furnish any advancements, developments, or other improvements to the Patent Rights which are not entitled to the priority dates of Patent Rights, or know-how, technology or information not provided in Patent Rights or Associated Technology.

**10.1 OTHER THAN LICENSEE'S OBLIGATION UNDER SECTION 14 (INDEMNIFICATION), NEITHER PARTY WILL BE LIABLE TO THE OTHER PARTY FOR ANY LOST PROFITS, COSTS OF PROCURING SUBSTITUTE GOODS OR SERVICES, LOST BUSINESS, ENHANCED DAMAGES FOR INTELLECTUAL PROPERTY INFRINGEMENT OR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR OTHER SPECIAL DAMAGES SUFFERED BY THE OTHER PARTY (AND IN THE CASE OF LICENSEE, BY ITS SUBLICENSEE AND ITS AFFILIATES)ARISING OUT OF OR RELATED TO THIS AGREEMENT FOR ALL CAUSES OF ACTION OF ANY KIND (INCLUDING TORT, CONTRACT, NEGLIGENCE, STRICT LIABILITY AND BREACH OF WARRANTY) EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE REGENTS WILL NOT BE LIABLE FOR ANY DIRECT DAMAGES SUFFERED BY LICENSEE, SUBLICENSEES, JOINT VENTURES, OR AFFILIATES ARISING OUT OF OR RELATED TO PATENT RIGHTS TO THE EXTENT ASSIGNED OR LICENSED BY THE REGENTS' INVENTORS TO THIRD PARTIES.**

## 11. PATENT FILING, PROSECUTION AND MAINTENANCE

**11.1 Ownership and Prosecution.** The Patent Rights will be held in the name of The Regents and obtained with counsel of The Regents' choice. The Regents will use good faith efforts to ensure Licensee receives copies of all correspondence filed with and received from the applicable patent office (e.g., patent applications, office actions, office action responses, etc.) during the term of the Agreement. While The Regents will control all Patent Actions and all decisions with respect to Patent Actions, it will consider any comments or suggestions by Licensee with respect thereto. Licensee has the right to request Patent Actions via a written request to The Regents ninety (90) days prior to the deadline set by the patent office in the territory such Patent Action is to take place (a "**Patent Prosecution Request**"). The Regents shall use all reasonable efforts to amend any patent application to include claims reasonably requested by the Licensee to protect the products contemplated to be sold under this Agreement and to file and prosecute patents in foreign countries indicated by and paid for by Licensee. In addition, provided that Licensee is in compliance with its obligations in Section 11.2, The Regents will undertake all patent actions requested pursuant to a valid Patent Prosecution Request (excluding any request to undertake any action that The Regents or its counsel determines would be adverse to The Regents such as, for example, a request to narrow any claim of any patents licensed hereunder).

**11.2 Past & Ongoing Patent Costs.** Licensee will bear all out-of-pocket costs incurred by The Regents for Patent Actions ("**Patent Costs**"). Licensee must reimburse to The Regents Patent Costs incurred prior to the term of this Agreement ("**Past Patent Costs**") within thirty (30) days of Licensee's receipt of an invoice from The Regents. As of the Effective Date, Past Patent Costs total approximately[***]. With respect to Patent Costs incurred during the term of this Agreement ("**Ongoing Patent Costs**"), Licensee is required to pay in advance The Regents patent counsel's estimated costs for undertaking Patent Actions that occur during the term of this Agreement before The Regents authorizes its patent counsel to proceed ("**Advanced Payment**"). The absence of this Advanced Payment will be deemed to be an election by Licensee not to secure the patent rights associated with the specific phase of patent prosecution in such territory, and such patent application(s) and patent(s) will not be part of the Patent Rights and therefore not be subject to this Agreement, and Licensee will have no further rights or license to them. At The Regents' sole discretion, rather than requiring an Advanced Payment, The Regents may (1) bill Licensee for Ongoing Patent Costs after such amounts are incurred, in which case payment will be due to The Regents within thirty (30) days of Licensee's receipt of an invoice from The Regents, or (2) have Ongoing Patent Costs directly billed to Licensee by The Regents' patent counsel.

**11.3 Termination of Obligations & Rights.** Licensee may terminate its license with respect to any or all of Patent Rights by providing written notice to The Regents ("**Patent Termination Notice**"). Termination of Licensee's obligations with respect to such patent application or patent will be effective sixty (60) days after receipt of such Patent Termination Notice by The Regents. In addition, if Licensee fails to timely (i) provide a Patent Prosecution Request pursuant to Section 11.1, or (ii) pay for any Patent Costs as required by Section 11.2, then The Regents shall have the right to terminate this Agreement with respect to the applicable patent application(s) and patent(s) (subject to Licensee's option to cure such breach pursuant to Section 8.4). For the avoidance of doubt immediately effective upon such termination, Licensee will have no further right or license to such patent applications and patents and Licensee will remain liable for any Patent Costs incurred prior to such termination with respect to such patent applications and patents.

**11.4 Patent Extensions:** Licensee will apply for an extension of the term of any patent included within the Patent Rights, if appropriate, under the Drug Price Competition and Patent Term Restoration Act of 1984 and/or similar regulations or laws in Europe, Japan or other foreign countries; provided, however, that such requirement shall not apply if Licensee, acting reasonably and in good faith, determines that seeking an extension of the term for another patent owned or licensed by Licensee would provide a materially longer patent protection coverage for the applicable Licensed Product. Licensee will prepare all documents and The Regents agrees to execute the documents and to take additional action as Licensee reasonably requests in connection therewith. Licensee will be liable for all costs relating to such application. If either party (in the case of The Regents, the licensing officer responsible for administration of this Agreement) receives notice pertaining to the infringement or potential infringement of any issued patent included with Patent Rights under the Drug Price Competition and Patent Term Restoration Act of 1984 (and/or similar foreign regulations or laws) then that party will within ten (10) days notify the other party after receipt of such notice of infringement.

## 12. PATENT MARKING

**12.1** Licensee will mark all Licensed Products or their containers (or packaging or a product website) in accordance with the appropriate patent number reference(s) in compliance with the requirements of 35 U.S.C. § 287.

## 13. PATENT INFRINGEMENT

**13.1 Infringement Notice.** In the event either party learns of infringement of potential commercial significance of any Patent Right, such party will provide the other party with written notice, including evidence of such infringement, if available ("**Infringement Notice**"). Licensee will not notify such infringer regarding such potential infringement until receiving The Regents' written permission, which permission will not be unreasonably withheld. For the avoidance of doubt, if Licensee breaches the foregoing restriction and a declaratory judgment action is filed by such infringer against The Regents, then as The Regents' sole and exclusive remedy for such breach Licensee will reimburse The Regents for The Regents' out of pocket costs in defending the Patent Rights as a result of such declaratory judgment. Both The Regents and Licensee will use their diligent efforts to cooperate with each other to terminate such infringement without litigation.

**13.2 Licensee-Initiated Suit and The Regents' Joinder.** If infringing activity of potential commercial significance by the infringer has not been abated within thirty (30) days following the date the Infringement Notice takes effect, then Licensee shall have the first right to institute suit for patent infringement against the infringer. The Regents may voluntarilyjoin such suit but may not otherwise commence suit against the infringer for the acts of infringement that are the subject of Licensee's suit or any judgment rendered in that suit. Licensee may not join The Regents as a party in suit initiated by Licensee without The Regents' prior written consent. If The Regents joins a suit initiated by Licensee, then Licensee will pay any costs incurred by The Regents arising out of such suit, including but not limited to, any legal fees of counsel that The Regents selects and retains to represent it in the suit. If The Regents refuses to join a suit initiated by Licensee in a Major Territory despite being deemed a necessary party to such suit by a court of competent jurisdiction in such Major Territory, all payments due The Regents under this Agreement (except those pertaining to patent cost reimbursement), including all royalties, License Maintenance Fees, Minimum Annual Royalties and other payments, shall be reduced by fifty percent (50%) for so long as the infringement by the third party continues unabated in such Major Territory but only to the extent that such infringement in such Major Territory is commercially-significant. For purposes hereof, "**Major Territory**" means any and all of the United States of America, any member state of the European Patent Convention, Canada, Australia, China and Japan.

**13.3 The Regents-Initiated Suit.** If, within a hundred and twenty (120) days following the date the Infringement Notice takes effect, infringing activity of potential commercial significance by the infringer has not been abated and if Licensee has not brought suit against the infringer, then The Regents may institute suit for patent infringement against the infringer. If Licensee was unable to pursue an alleged infringer as a direct result of The Regents' refusal to join as a party to a suit initiated by Licensee pursuant to Section 13.2, then The Regents acknowledges and agrees it is prohibited from pursuing such alleged infringer pursuant to this Section 13.3. If The Regents institutes such suit, then Licensee may not join such suit without The Regents' consent and may not thereafter commence suit against the infringer for the acts of infringement that are the subject of The Regents' suit or any judgment rendered in that suit.

**13.4 Cooperation.** Any litigation proceedings will be controlled by the party bringing the suit, except that The Regents may be represented by counsel of its choice in any suit brought by Licensee. The Regents and Licensee agree to be bound by all final and non-appealable determinations of patent infringement, validity and enforceability (but no other issue) resolved by any adjudicated judgment in a suit brought in compliance with this Section 13 (Patent Infringement). Any agreement made by Licensee for purposes of settling litigation or other dispute shall comply with the requirements of Section 3 (Sublicenses) of this Agreement.

**13.5 Costs & Recovery.** Each party will cooperate with the other in litigation proceedings instituted hereunder but at the expense of the party who initiated the suit (unless such suit is being jointly prosecuted by the parties). Any recovery or settlement received in connection with any suit will first be shared by The Regents and Licensee equally to cover any litigation costs each incurred and next will be paid to The Regents or Licensee to cover any litigation costs it incurred in excess of the litigation costs of the other. In any suit initiated by Licensee, The Regents will receive fifteen percent (15%) of any recovery in excess of litigation costs and Licensee will receive the remaining eighty-five percent (85%). In any suit initiated by The Regents, one hundred percent (100%) of any recovery in excess of litigation costs will belong to The Regents. Notwithstanding the foregoing, if Licensee joins such suit at The Regents request or is involuntarily joined, The Regents will receive seventy-five percent (75%) of any recovery and Licensee will receive the remaining twenty-five percent (25%).

## 14. INDEMNIFICATION

**14.1 Indemnification.** Licensee will, and will require its Sublicensees to, indemnify, hold harmless and defend The Regents, the inventors of the Patent Rights, and the sponsors of the research that led to the invention claimed by the Patent Rights, and their respective employers, and the officers, employees and agents of any of the foregoing, against any and all claims, suits, losses, damage, costs, fees and expenses resulting from, or arising out of, the exercise of this license or any Sublicense. This indemnification will include, but not be limited to, any product liability. If The Regents believes that there will be a conflict of interest or it will not otherwise be adequately represented by counsel chosen by Licensee to defend The Regents in accordance with this Section 14.1 (Indemnification), then The Regents may retain counsel of its choice to represent it and Licensee will pay all expenses for such representation.

**14.2 Insurance.** Licensee, at its sole cost and expense, will insure its activities in connection with any work performed hereunder and will obtain, keep in force, and maintain the following insurance (or will ensure that a Sublicensee obtains, keeps in force and maintains): Commercial Form General Liability Insurance (contractual liability included) with minimum limits as follows:

**Each Occurrence:** $500,000;
**Personal and Advertising Injury:** $500,000;
**General Aggregate (commercial form only):** $1,000,000; and
**Worker's Compensation** (as legally required in the jurisdiction in which Licensee is doing business).

Notwithstanding the foregoing, no later than sixty (60) days before the first use of any Licensed Product in or on a human, Licensee, at its sole cost and expense, will insure its activities in connection with any work performed hereunder and will obtain, keep in force, and maintain the following insurance: Commercial Form General Liability Insurance (contractual liability included) with minimum limits as follows:

**Each Occurrence:** $1,000,000;
**Products/Completed Operations Aggregate:** $5,000,000;
**Personal and Advertising Injury:** $1,000,000;
**General Aggregate (commercial form only):** $5,000,000; and
**Worker's Compensation** (as legally required in the jurisdiction in which Licensee is doing business).

Notwithstanding the foregoing, no later than sixty (60) days before the anticipated date of market introduction of any Licensed Product, Licensee, at its sole cost and expense, will insure its activities in connection with any work performed hereunder and will obtain, keep in force, and maintain the following insurance: Commercial Form General Liability Insurance (contractual liability included) with minimum limits as follows:

**Each Occurrence:** $5,000,000;
**Products/Completed Operations Aggregate:** $10,000,000;
**Personal and Advertising Injury:** $5,000,000;
**General Aggregate (commercial form only):** $10,000,000; and
**Worker's Compensation** (as legally required in the jurisdiction in which Licensee is doing business).

If the above insurance is written on a claims-made form, it must continue for three (3) years following termination or expiration of this Agreement. The insurance must have a retroactive date of placement prior to or coinciding with the Effective Date of this Agreement. The coverage and limits above will not in any way limit Licensee's liability under Section 14.1 (Indemnification).

**14.3 Certificates; Notification.** Upon the execution of this Agreement, Licensee will furnish The Regents with certificates of insurance evidencing compliance with all requirements. Such certificates will indicate The Regents as an additional insured(s) under the coverage described above in Section 14.2 (Insurance) and include a provision that the coverage will be primary and will not participate with, nor will be excess over, any valid and collectable insurance or program of self-insurance maintained by The Regents. The Regents will promptly notify Licensee in writing of any claim or suit brought against The Regents for which The Regents intends to invoke the provisions of this Section 14 (Indemnification). Licensee will keep The Regents informed of its defense of any claims pursuant to this Section 14 (Indemnification). Licensee will provide The Regents written notice if such insurance levels are reduced or cancelled.

## 15. NOTICES

**15.1** Any notice or payment hereunder will be deemed to have been properly given when sent in writing in English to the respective address below and will be deemed effective on the date of delivery if delivered in person; the date of mailing if mailed by first-class certified mail, postage paid; or if sent via email, when the recipient acknowledges having received that email, provided that automated replies and "read receipts" will not be considered acknowledgement of receipt.

In the case of Licensee: **Katmai Pharmaceuticals, Inc.**

**[***]**

**Attention: Bradley Gordon**
**Pres. and CEO**

For The Regents: **The Regents of the University of California**
**University of California, Los Angeles**
**Technology Development Group**
**10889 Wilshire Boulevard, Suite 920**
**Los Angeles, CA 90095-7191**

**Attention: Contracts Management Team**
**Ref: [***]**

All Advanced Payments due under this Agreement must be sent via wire transfer as follows. In order to ensure that funds are properly credited to your account, please reference invoice number or UC Control Number on all wire transfers.

**[***]**

**15.2 Licensee Contact Information:** Licensee must furnish to The Regents the completed licensee contact information form attached hereto as **Appendix C** concurrent to execution of this Agreement and incorporated herein by this reference, showing the contacts responsible for (i) Progress Reports, (ii) Patent Prosecution, and (iii) Financial Obligations.

## 16. ASSIGNABILITY

**16.1** This Agreement is binding upon, and will inure to the benefit of, The Regents, its successors and assigns. Licensee may assign or transfer this Agreement only with the prior written consent of The Regents. The prior written consent of The Regents will not be required if the assignment or transfer of this Agreement is in conjunction with a bona fide arms' length transaction involving a merger or the transfer of all or substantially all of the capital stock or business of Licensee to which this license relates, so long as Licensee is in good standing with its obligations under this Agreement and The Regents is legally, contractually, and, per its policies, able to enter into an agreement with such assignee or transferee (the phrase "policies" understood as broad, Regents-wide restrictions on assignments to certain classes of companies) and provided that such assignment shall not place the Regents in a conflict of commitment.

**16.2** In any assignment or transfer of this Agreement, the conditions (i)-(iii) below shall be timely met. Any attempted assignment by Licensee other than in accordance with this Section will be null and void.

(i) Licensee is then in good standing with its obligations under this Agreement;

(ii) Licensee provides The Regents with written notice of such assignment, identifying the assignee or transferee entity's name and contact information, no later than the earlier of (x) the date such transaction is first publicly announced and (y) the date of consummation of such transaction (it being understood, however, that Licensee will endeavor to provide The Regents with prior written notice of the proposed assignment to the extent practicable under the circumstances and not prohibited by applicable law or regulation or Licensee's contractual obligations to the applicable third party);

(iii) provide The Regents with a written agreement signed by the proposed acquirer or successor entity agreeing to be bound by all of the provisions of this Agreement, as well as assume all responsibilities and liabilities that arose under this Agreement prior to the effective date of the proposed assignment, as if such acquirer or successor entity were the original Licensee within thirty (30) days after any such assignment; and

(iv) pay to The Regents an assignment fee of **[***]** within thirty (30) days after any such assignment. This assignment fee will not be required if the Licensee can establish by documented evidence that it (or together with its Sublicensee) has expended more than **[***]** in the development of Licensed Products prior to the date of such anticipated assignment or transfer.

## 17. GOVERNING LAWS AND VENUE

**Choice of Law & Venue: THIS AGREEMENT WILL BE INTERPRETED AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA**, excluding any choice of law rules that would direct the application of the laws of another jurisdiction and without regard to which party drafted particular provisions of this Agreement, but the scope and validity of any patent or patent application will be governed by the applicable laws of the country of such patent or patent application. Any legal action brought by the parties hereto relating to this Agreement will be conducted in Los Angeles, California.

## 18. COMPLIANCE WITH LAWS

**18.1** If this Agreement or any associated transaction is required by the law of any nation to be either approved or registered with any governmental agency, Licensee will assume all legal obligations to do so. Licensee will notify The Regents if it becomes aware that this Agreement is subject to a United States or foreign government reporting or approval requirement. Licensee will make all necessary filings and pay all costs including fees, penalties and all other out-of-pocket costs associated with such reporting or approval process.

**18.2** Licensee agrees to comply with all applicable international, national, state, regional and local laws and regulations in performing its obligations hereunder and in its use, manufacture, sale or import of the Licensed Products. Licensee will observe all applicable United States and foreign laws with respect to the transfer or provision of Licensed Products and related technical data to foreign countries, including, without limitation, the International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations. Licensee agrees to manufacture and use Licensed Products in compliance with applicable government importation laws and regulations of a particular country for Licensed Products made outside the particular country in which such Licensed Products are used, sold or otherwise exploited.

## 19. CONFIDENTIALITY

**19.1** Licensee and The Regents will treat and maintain the other party's confidential information, including the negotiated terms of this Agreement, patent prosecution related information, Associated Technology, any progress reports and royalty reports and any Sublicense issued pursuant to this Agreement ("**Confidential Information**") in confidence using at least the same degree of care as the receiving party uses to protect its own confidential information of a like nature from the date of disclosure until five (5) years after the termination or expiration of this Agreement. Confidential Information can be written, oral, or both.

**19.2** Licensee and The Regents may disclose Confidential Information to their employees, agents, consultants, contractors, and co-owners (as applicable) and, in the case of Licensee, its actual or prospective Sublicensees, provided that such parties are bound by a like duty of confidentiality as that found in this Section 19 (Confidentiality). Notwithstanding anything to the contrary contained in this Agreement, The Regents may release this Agreement, including any terms contained herein and information regarding payments or other income received in connection with this Agreement to the inventors, senior administrative officials employed by The Regents and individual Regents upon their request, provided such individuals are informed of the confidential nature of such information. The Licensee is free to release the terms and conditions of this Agreement to any actual or prospective Sublicensees, development partners, service providers, investors and acquirers so long as they are bound to Licensee by terms of confidentiality no less restrictive than those stated herein. In addition, notwithstanding anything to the contrary in this Agreement, if a third party inquires whether a license to Patent Rights is available, then The Regents may disclose the existence of this Agreement and its scope of the license granted hereunder.

**19.3** Nothing contained herein will restrict or impair, in any way, the right of Licensee or The Regents to use or disclose any Confidential Information that: (a) recipient can demonstrate by written records was previously known to it prior to its disclosure by the disclosing party; (b) recipient can demonstrate by written records is now, or becomes in the future, public knowledge other than through acts or omissions of recipient; (c) recipient can demonstrate by written records was obtained lawfully and without restrictions on the recipient from sources independent of the disclosing party; and (d) The Regents is required to disclose pursuant to the California Public Records Act or other applicable law.

**19.4** Licensee or The Regents also may disclose Confidential Information that is required to be disclosed (i) to a governmental entity or agency in connection with seeking any governmental or regulatory approval, governmental audit, or other governmental contractual requirement or (ii) by law, e.g., California Public Records Act, provided that the recipient uses reasonable efforts to give the party owning the Confidential Information sufficient notice of such required disclosure to allow the party owning the Confidential Information reasonable opportunity to object to, and to take legal action to prevent, such disclosure. Nothing in this Agreement will be construed to prevent The Regents from reporting de-identified raw terms of this Agreement as part of a larger database.

**19.5** Upon termination of this Agreement, Licensee and The Regents will destroy or return any of the disclosing party's Confidential Information, including all Associated Technology, in its possession within fifteen (15) days following the termination of this Agreement and provide each other with prompt written notice that such Confidential Information has been returned or destroyed. Each party may, however, retain one copy of such Confidential Information for archival purposes in non-working files. For clarity, any Developments provided by Licensee pursuant to Section 8.6 will be deemed upon termination of this Agreement to constitute The Regents' Confidential Information.

## 20. MISCELLANEOUS

**20.1 Entire & Binding Agreement.** This Agreement, which includes the attached Appendices A (Patent Rights), B (Royalty Statement), C (Licensee Contact Information), and D (Stock Issuance Agreement), and E (Associated Technology) embodies the entire understanding of the parties and supersedes all previous communications, representations or understandings, either oral or written, between the parties relating to the subject matter hereof. This Agreement is not binding on the parties until it has been signed below on behalf of each party and is then effective as of the Effective Date. No amendment or modification of this Agreement is valid or binding on the parties unless made in writing and signed on behalf of each party. In case any of the provisions contained in this Agreement is held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability will not affect any other provisions of this Agreement and such unenforceable provision shall be modified so that it is valid, legal, and enforceable and, to the fullest extent possible, reflects the intention of the parties.

**20.2 Headings.** The headings of the several sections are inserted for convenience of reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement.

**20.3 Waiver.** No waiver by either party of any breach or default of any of the agreements contained herein will be deemed a waiver as to any subsequent and/or similar breach or default.

**20.4 Independent Contractors.** In performing their respective duties under this Agreement, each of the parties will be operating as an independent contractor. Nothing contained herein will in any way constitute any association, partnership, or joint venture between the parties hereto, or be construed to evidence the intention of the parties to establish any such relationship. Neither party will have the power to bind the other party or incur obligations on the other party's behalf without the other party's prior written consent.

**20.5 Counterparts.** This Agreement may be executed in one or more counterparts, each of which together will constitute one and the same Agreement. For purposes of executing this Agreement, a facsimile (including a PDF image delivered via email) copy of this Agreement, including the signature pages, will be deemed an original. The parties agree that neither party will have any rights to challenge the use or authenticity of a counterpart of this Agreement based solely on that its signature, or the signature of the other party, on such counterpart is not an original signature.

**IN WITNESS WHEREOF**, both The Regents and Licensee have executed this Agreement by their respective and duly authorized officers on the day and year written.

**KATMAI PHARMACEUTICALS, INC.**

By: /s/ Bradley B. Gordon
(Signature)

Name: Bradley B. Gordon

Title: President, CEO

Date: 3/9/20

**THE REGENTS OF THE UNIVERSITY OF CALIFORNIA**

By: /s/ Mark Wisniewski
(Signature)

Name: Mark Wisniewski

Title: Sr. Director, Biopharmaceuticals

Date: 3/9/20

**THE REGENTS OF THE UNIVERSITY OF CALIFORNIA**

By: /s/ Amir Naiberg
(Signature)

Name: Amir Naiberg

Title: AVC, Technology Development Group

Date: 3/9/20

**APPENDIX A**

**PATENT RIGHTS**

[***]

**APPENDIX B**

**ROYALTY STATEMENT**

[***]

**APPENDIX C**

**LICENSEE CONTACT INFORMATION**

[***]

**APPENDIX D**

**STOCK ISSUANCE AGREEMENT**

[***]

**APPENDIX E**

**RESIDUAL INFORMATION**

[***]

**CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT IS BOTH (I) NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED.**

# FIRST AMENDMENT TO EXCLUSIVE AGREEMENT

UC Control No. [***]

THIS FIRST AMENDMENT (the "**First Amendment**") is effective this **December 18, 2020,** by and between **The Regents of the University of California** ("**The Regents**"), a California corporation having its statewide administrative offices at 1111 Franklin Street, 12th Floor, Oakland, California 94607-5200, acting through the offices of The University of California, Los Angeles located at 10889 Wilshire Blvd, Suite 920, Los Angeles, CA 90095-7191, and **Katmai Pharmaceuticals, Inc.** ("**Licensee**"), a Delaware corporation having a principal place of business at 1126 Goldenrod Ave., Corona Del Mar, California 92625, amends that certain Exclusive License Agreement, UC Control No. 2020-04-0576, dated March 11, 2020 (the "**Agreement**") in accordance with the terms and conditions of this First Amendment.

WHEREAS, the parties are entering into that certain Sponsored Research Agreement ("**SRA**") concurrently with execution of this First Amendment;

WHEREAS, the parties hereby agree to include under this Agreement all ERAS-801 Inventions and non-patentable Deliverables (such capitalized terms as defined in the SRA) as further detailed below;

WHEREAS, Licensee desires, and The Regents agrees, to include under this Agreement the non-patentable subject matter disclosed to The Regents pursuant to UCLA Case No. [***] as Associated Technology licensed pursuant to the terms of the Agreement;

WHEREAS, the parties are currently in discussions regarding Licensee's desire to include other Potential Patent Rights (defined below) as Patent Rights licensed under this Agreement and, in view of such active discussions, The Regents agrees to refrain from licensing its interest in such Potential Patent Rights for a period of time as defined herein below;

NOW, THEREFORE, the parties agree as follows:

1. **ERAS-801 Inventions.** Pursuant to Section 10.4 of the SRA, the parties have agreed that, to the extent The Regents has the legal right and ability to do so, patents The Regents pursues on ERAS-801 Inventions (as defined in Section 11.5 of the SRA) will be incorporated into this Agreement and will constitute Patent Rights under this Agreement. In such case, the parties further agree that:

   (1) the parties will amend Appendix A of this Agreement to incorporate the applicable UCLA Case Number corresponding to each such ERAS-801 Invention, and the template amendment attached to this First Amendment as Exhibit 1 will be used to facilitate such amendment;

   (2) while no additional consideration (e.g., a license amendment fee) will be required when executing the amendment referred to in subpart (1) above, such newly incorporated Patent Rights will be subject to all of the provisions of this Agreement, including all obligations (e.g., Earned Royalties, Past and Ongoing Patent Cost reimbursement, progress and royalty reports, etc.) and all rights (e.g., license granted pursuant to Section 2.1, ability to grant Sublicenses under Section 3, etc.) under this Agreement;

   (3) if the nature of an ERAS-801 Invention is such that The Regents determines additional Development Milestones need to be included under Section 5.2 of the Agreement (Development Milestones), then the parties will confer and include additional Development Milestones in the applicable amendment to this Agreement;

(4) it is possible that certain ERAS-801 Inventions, while related to ERAS-801, may be capable of being used for purposes independent of ERAS-801 (the Patent Rights pursued thereon constituting "**Patent Rights of General Applicability**"), e.g., a diagnostic invention applicable to a disease that has multiple treatment options in addition to ERAS-801. In such case, the parties agree that the exclusive license granted to Licensee to the Patent Rights pursuant to Section 2.1 will also be subject to Section 2.2.C, which the parties agree is hereby added to this Agreement:

"C. Patent Rights designated by the parties as constituting Patent Rights of General Applicability will be limited to the ERAS-801 Field of Use such that The Regents expressly reserves the right to grant exclusive rights to the Patent Rights of General Applicability outside of the ERAS-801 Field of Use. "**ERAS-801 Field of Use**" means use of the Patent Rights solely for the purposes of developing, manufacturing and commercializing ERAS-801 and specifically excluding the right to use such Patent Rights for purposes independent of the compounds claimed by the Patent Rights.

2. **Non-patentable Deliverables.** Pursuant to Section 9.2 of the SRA, the parties have agreed that, to the extent The Regents has the legal right and ability to do so, non-patentable Deliverables (as defined by Section 9.1 of the SRA to include Periodic Reports, Data and the Final Report) will be incorporated into this Agreement and will constitute Associated Technology under this Agreement. In such case, the parties further agree that:

(1) the parties will amend Appendix A of this Agreement to incorporate the applicable UCLA Case Number corresponding to such Deliverables, and the template amendment attached to this First Amendment as Exhibit 1 will be used to facilitate such amendment;

(2) while no additional consideration (e.g., a license amendment fee) will be required when executing the amendment referred to in subpart (1) above, such newly incorporated Associated Technology will be subject to all of the provisions of this Agreement, including all obligations (e.g., Earned Royalties, etc.) and all rights (e.g., license granted pursuant to Section 2.1, ability to grant Sublicenses under Section 3, etc.) under this Agreement;

(3) such newly added Associated Technology will be subject to the Associated Technology Field of Use. **"Associated Technology Field of Use"** means use of the Associated Technology solely for the purposes of developing, manufacturing and commercializing the compounds claimed by the Patent Rights. If Licensee desires to use or otherwise exploit the Associated Technology for any other purpose, e.g., for the purposes of data mining and/or any other type of analysis to discover, develop, manufacture or commercialize products (e.g., compounds, analogues, etc.) that are not covered by the Patent Rights, then the parties will confer and amend this Agreement to enable such use as mutually agreed to by the parties.

3. **Incorporation of Associated Technology:** The parties have agreed to hereby add the nonpatentable subject matter disclosed and assigned to The Regents pursuant to the following UCLA Case Number as Associated Technology licensed pursuant to the terms, and therefore it is hereby added to Appendix E, of the Agreement:

[***]

4. **Standstill on Other Regents IP:** The parties are also actively discussing Licensee's request to incorporate the UCLA Case Numbers identified in the table below as Patent Rights licensed under the Agreement ("**Potential Patent Rights**"). To enable the parties to have additional time to negotiate the terms related thereto, The Regents agrees to not grant any option or license to its interest in the Potential Patent Rights to another person or entity for the period commencing on the First Amendment's Effective Date and ending six (6) months thereafter. For clarity, no option or license is granted by The Regents to such Potential Patent Rights pursuant to this First Amendment.

[***]

Both The Regents and Licensee have executed this First Amendment by their authorized officers on the dates written below:

**KATMAI PHARMACEUTICALS, INC.**

By: /s/ Bradley Gordon
*(Signature)*
Name: Bradley Gordon
Title: President and CEO
Date: 12/18/2020

**THE REGENTS OF THE UNIVERSITY OF CALIFORNIA**

By: /s/ Amir Naiberg
*(Signature)*
Name: Amir Naiberg
Title: Associate Vice Chancellor, CEO & President
Date: 12/21/2020

**EXHIBIT 1**

**[INSERT NUMBER] AMENDMENT TO EXCLUSIVE AGREEMENT**

[***]

**CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT IS BOTH (I) NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED.**

# SECOND AMENDMENT TO EXCLUSIVE AGREEMENT

UC Control No. [***]

**THIS SECOND AMENDMENT** (the "**Second Amendment**") is effective this **April 1, 2021**, by and between **The Regents of the University of California** ("**The Regents**"), a California corporation having its statewide administrative offices at 1111 Franklin Street, 12th Floor, Oakland, California 94607-5200, acting through the offices of The University of California, Los Angeles located at 10889 Wilshire Blvd, Suite 920, Los Angeles, CA 90095-7191, and **Katmai Pharmaceuticals, Inc.** ("**Licensee**"), a Delaware corporation having a principal place of business at 1126 Goldenrod Ave., Corona Del Mar, California 92625, amends that certain Exclusive License Agreement, UC Control No. 2020-04-0576, dated March 11, 2020, and as subsequently amended in a First Amendment effective December 21, 2020 ("**First Amendment**") in accordance with the terms and conditions of this Second Amendment (collectively, the "**Agreement**").

WHEREAS, Licensee and The Regents are parties to two Sponsored Research Agreements each made effective July 28, 2020, i.e., UCLA Ref. Nos. [***] ("**SRA**");

WHEREAS, pursuant to the First Amendment to the Agreement the parties agreed to incorporate under the Agreement all ERAS-801 Inventions and non-patentable Deliverables (such capitalized terms as defined in the SRA) as further detailed in such First Amendment;

WHEREAS, the invention disclosed to UCLA pursuant to UCLA Case No. [***]constitutes an ERAS-801 Invention resulting from the SRA and the parties are executing this Second Amendment to acknowledge the patents pursued by The Regents on such ERAS-801 Invention constitute Patent Rights under this Agreement;

WHEREAS, the non-patentable subject matter disclosed to UCLA pursuant to UCLA Case No. [***] constitutes non-patentable Deliverables resulting from the SRA and the parties are executing this Second Amendment to acknowledge such non-patentable Deliverables constitute Associated Technology under this Agreement;

NOW, THEREFORE, the parties agree as follows:

1. The parties hereby agree to amend Appendix A of the Agreement to incorporate the patents The Regents pursues on UCLA Case No. [***] as Patent Rights under this Agreement. The parties further agree that these Patent Rights constitute Patent Rights of General Applicability and therefore are subject to Section 2.2.C of this Agreement (see First Amendment).
2. The parties hereby agree to amend Appendix E of the Agreement to incorporate the following nonpatentable subject matter disclosed and assigned to The Regents pursuant to the following UCLA Case Number as Associated Technology licensed pursuant to the terms of the Agreement, provided that this newly incorporated Associated Technology will be subject to the Associated Technology Field of Use, as defined by the First Amendment to the Agreement.

3. Attached to this Second Amendment as Attachments 1 and 2 are the updated Appendices A and E from the Agreement which serve to incorporate the Patent Rights and Associated Technology as described above. For the avoidance of doubt, no Associated Technology and no Patent Rights are being removed from these Appendices as a result of this Second Amendment – the sole update is the addition of the Patent Rights and Associated Technology as described in paragraphs 1 and 2 above.

All other terms and conditions of the Agreement remain the same. This Second Amendment may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. Electronic, facsimile, Portable Document Format (PDF) or photocopied signatures of the parties will have the same legal validity as original signatures.

Both The Regents and Licensee have executed this Second Amendment by their authorized officers on the dates written below:

**KATMAI PHARMACEUTICALS, INC.**

By: /s/ Bradley Gordon
*(Signature)*
Name: Bradley Gordon
Title: President and CEO

Date: 5/24/2021

**THE REGENTS OF THE UNIVERSITY OF CALIFORNIA**

By: /s/ Mark Wisniewski
*(Signature)*
Name: Mark Wisniewski
Title: Sr. Director of Business Development, Biopharmaceuticals

Date: 5/25/2021

**THE REGENTS OF THE UNIVERSITY OF CALIFORNIA**

By: /s/ Amir Naiberg
(*Signature)*
Name: Amir Naiberg
Title: AVC, Technology Development Group

Date: 5/26/2021

**ATTACHMENT 1 TO SECOND AMENDMENT**

**APPENDIX A**

**REGENTS' PATENT RIGHTS**

**[***]**

**ATTACHMENT 2 TO SECOND AMENDMENT**

**APPENDIX E**

**ASSOCIATED TECHNOLOGY**

**[***]**