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

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2022

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____to_____

Commission File Number: 001-40794

DICE THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**47-2286244**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
400 East Jamie Court, Suite 300 **South San Francisco, California**	**94080**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(650) 566-1420**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	DICE	The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES ☒ NO ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES ☐ NO ☒

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES ☒ NO ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). YES ☒ NO ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a 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 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES ☐ NO ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant computed by reference to the price at which the common equity was last sold as of the last business day of the registrant's most recently completed second fiscal quarter was $436,630,585. This calculation does not reflect a determination that certain persons are affiliates of the registrant for any other purpose.

The number of shares of registrant's common stock outstanding as of March 8, 2023 was 47,711,123.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement relating to the Annual Meeting of Stockholders, to be filed with the Securities and Exchange Commission within 120 days after the end of the registrant's fiscal year ended December 31, 2022, are incorporated herein by reference into Part III of this Annual Report.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, or Annual Report, contains forward-looking statements. In some cases, you can identify forward-looking statements by terms such as "believe," "may," "will," "potentially," "estimate," "continue," "anticipate," "intend," "could," "would," "project," "plan," "expect," "predict," "potential" and similar expressions that convey uncertainty of future events or outcomes, although not all forward-looking statements contain these words. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in "Risk factors" and elsewhere in this filing. Moreover, we operate in a competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Annual Report may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. The forward-looking statements in this Annual Report include, among other things, statements about:

- our ability to obtain funding for our operations, including funding necessary to complete the development and commercialization of our therapeutic candidates;
- the success, cost and timing of our therapeutic candidate development activities and planned clinical trials;
- the scope and timing of our pipeline expansion efforts;
- the timing of and our ability to obtain and maintain regulatory approvals for our therapeutic candidates;
- future agreements and partnerships with third parties in connection with the commercialization of our therapeutic candidates;
- the estimated market size for, and the rate and degree of market acceptance and clinical utility of, our therapeutic candidates;
- our commercialization, marketing and manufacturing capabilities and strategy;
- the success of competing therapies that are or may become available;
- our ability to attract and retain key management and technical personnel;
- our expectations regarding our ability to obtain, maintain and enforce intellectual property protection for our therapeutic candidates;
- our use of our existing cash, cash equivalents, and marketable securities;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing; and
- our expectations regarding the impact of the macroeconomic and geopolitical environment, including inflation, pandemics and geopolitical conflict, and their potentially material adverse impact on our business and the execution of our preclinical studies and clinical trials.

The forward-looking statements made in this filing relate only to events or information as of the date on which the statements are made in this Annual Report. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this Annual Report to conform these statements to actual results or to changes in our expectations, except as required by law. We intend the forward-looking statements contained in this Annual Report to be covered by the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act").

RISK FACTORS SUMMARY

Our business is subject to a number of risks and uncertainties, including those risks discussed at-length below. These risks include, among others, the following:

- We are a clinical stage biopharmaceutical company with a limited operating history and no products approved for commercial sale.
- We have never generated revenue from product sales and may never be profitable.
- We have incurred significant losses since our inception and we anticipate that we will continue to incur losses for the foreseeable future, which could harm our future business prospects.
- We will require substantial additional funds to advance development of our current or future therapeutic candidates, which may not be available on acceptable terms, or at all. Failure to obtain this necessary capital when needed may force us to delay, limit or terminate our product development programs, commercialization efforts or other operations.
- Our therapeutic candidates are in early stages of development and may fail in development or suffer delays that materially and adversely affect their commercial viability. If we or our collaborators are unable to complete development of, or commercialize our therapeutic candidates, or experience significant delays in doing so, our business will be materially harmed.
- Our business is heavily dependent on the success of our lead therapeutic candidate, DC-806, fast follower therapeutic candidate DC-853, and related compounds in our IL-17 program. Existing and future preclinical studies and clinical trials of our therapeutic candidates may not be successful, and if we are unable to commercialize our therapeutic candidates or experience significant delays in doing so, our business will be materially harmed.
- If we do not achieve our projected development goals in the time frames we announce and expect, the commercialization of our therapeutics may be delayed and, as a result, our stock price may decline.
- Our approach to the discovery and development of our therapeutic treatments is based on novel technologies that are unproven and may not result in marketable products.
- Preclinical and clinical development involve a lengthy and expensive process, with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results. We may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our current therapeutic candidates or any future therapeutic candidates.
- The COVID-19 pandemic could adversely impact our business, including our ongoing and anticipated future clinical trials, supply chain and business development activities.
- Results of preclinical studies and early clinical trials on any of our therapeutic candidates may not be predictive of results of future clinical trials.
- Preliminary, interim or topline data from our clinical trials that we announce or publish from time to time may change as more data become available and are subject to audit and verification procedures that could result in material changes in the final data.
- Our future clinical trials or those of our future collaborators may reveal significant adverse events not seen in our preclinical studies or clinical trials and may result in a safety profile that could inhibit regulatory approval or market acceptance of any of our therapeutic candidates.
- We may not be successful in our efforts to use our DELSCAPE platform to expand our pipeline of therapeutic candidates and develop marketable products.
- We face competition from entities that have developed or may develop therapeutic candidates for the diseases addressed by our therapeutic candidates, including companies developing novel treatments and technology platforms. If these companies develop technologies or therapeutic candidates more rapidly than we do or their technologies are more effective, our ability to develop and successfully commercialize therapeutic candidates may be adversely affected.
- We have historically entered into collaborations and may, in the future, seek to enter into collaborations with third parties for the discovery, development and commercialization of our therapeutic candidates. If

our future collaborators cease development efforts under collaboration agreements, or if those agreements are terminated, the collaborations may fail to lead to commercial products, and we may never receive milestone payments or future royalties under the agreements.

- The manufacturing of our small molecules is complex, and our third-party manufacturers may encounter difficulties in production. If we or any of our third-party manufacturers encounter such difficulties, our ability to provide supply of our therapeutic candidates for clinical trials, our ability to obtain marketing approval, or our ability to provide supply of our therapeutics for patients, if approved, could be delayed or stopped.
- We will need to grow our organization, and we may experience difficulties in managing our growth and expanding our operations, which could adversely affect our business.
- If we are unable to obtain and maintain sufficient intellectual property protection for our therapeutic candidates, or if the scope of the intellectual property protection is not sufficiently broad, our competitors could develop and commercialize products similar or identical to ours, and our ability to successfully commercialize our therapeutics may be adversely affected.
- We and/or our collaborators may be unable to obtain, or may be delayed in obtaining, U.S. or foreign regulatory approval and, as a result, unable to commercialize our therapeutic candidates.

PART I

Item 1. Business.

We are a biopharmaceutical company leveraging our proprietary technology platform to build a pipeline of novel oral therapeutic candidates to treat chronic diseases in immunology and other therapeutic areas. We are initially focused on developing oral therapeutics against well-validated targets in immunology, with the goal of achieving comparable potency to their systemic biologic counterparts, which have demonstrated the greatest therapeutic benefit to date in these disease areas. Our platform, which we refer to as DELSCAPE, is designed to discover selective oral small molecules with the potential to modulate protein-protein interactions ("PPIs") as effectively as systemic biologics. We believe there is a significant unmet medical need for convenient oral therapies in chronic immunological diseases that offer the therapeutic benefits of systemic biologics.

Our lead therapeutic candidate, DC-806, is an oral antagonist of the pro-inflammatory signaling molecule, interleukin-17 ("IL-17"), which is a validated drug target implicated in a variety of immunology indications. There are two approved antibody therapeutics, COSENTYX (secukinumab), marketed by Novartis, and TALTZ (ixekizumab), marketed by Eli Lilly, but no oral therapies targeting this pathway. COSENTYX and TALTZ both are approved for the treatment of psoriasis, psoriatic arthritis, ankylosing spondylitis and non-radiographic axial spondyloarthritis, and collectively generated approximately $7.3 billion in worldwide sales in 2022. The Medicines and Healthcare Products Regulatory Agency ("MHRA") in the United Kingdom ("UK") approved our Clinical Trial Application ("CTA") for DC-806 in September 2021 and in October 2022, we announced positive topline data from our Phase 1 clinical trial in healthy volunteers and psoriasis patients. The Phase 1 trial was designed to generate safety and pharmacokinetic ("PK") data, as well as provide early clinical proof-of-concept in psoriasis patients. The trial was conducted in three overlapping cohorts: Phase 1a (single ascending dose) and Phase 1b (multiple ascending dose) in healthy volunteers, and a proof-of-concept Phase 1c in psoriasis patients. Clinical proof-of-concept in psoriasis patients was achieved with a mean percentage reduction in Psoriasis Area and Severity Index ("PASI") from baseline at 4 weeks of 43.7% in the high dose group compared to 13.3% in the placebo group, with an exploratory p-value of 0.0008. Additionally, DC-806 was well tolerated with a favorable safety profile across all dose groups in healthy volunteers and psoriasis patients, with a robust PK profile and clear pharmacodynamic effects on two distinct biomarkers at both high and low doses of DC-806. Collectively these data support further development of DC-806 as a potential best-in-class oral agent for the treatment of psoriasis. Our investigational new drug ("IND") application was cleared by the U.S. Food and Drug Administration ("FDA") in March 2023 and is in effect for DC-806. We plan to advance DC-806 into a global Phase 2b clinical trial in the first half of 2023.

In the second half of 2021, we nominated a development candidate, DC-853, a differentiated fast-follower molecule that in pre-clinical studies has been shown to inhibit IL-17AA and IL-17AF in a manner similar to that of DC-806. The MHRA in the UK approved our CTA for DC-853 in February 2023. We began dosing healthy volunteers in our Phase 1 clinical trial with DC-853 and expect topline data in the second half of 2023. We believe that advancing multiple platform-derived therapeutic candidates unlocks the ability to develop compounds with differentiated properties and has the potential to maximize the value of our IL-17 franchise, and therefore we intend to nominate an additional, structurally differentiated IL-17 inhibitor as a development candidate and progress it through IND-enabling studies.

We also are developing oral therapeutic candidates targeting α4ß7 integrin for the treatment of inflammatory bowel disease ("IBD") and evaluating oral therapeutic candidates targeting αVß1/αVß6 integrin for the treatment of fibrosis. Additionally, in July 2022, we regained worldwide rights to a previously partnered oral immuno-oncology program, small-molecule PD-L1 inhibitors discovered using our DELSCAPE platform. Leveraging DELSCAPE, we are also evaluating other novel and validated immunology targets, including interleukin-23 ("IL-23"), tumor necrosis factor α ("TNFα"), neonatal Fc receptor ("FcRn"), and thymic stromal lymphopoietin ("TSLP"), among other potential targets, with a view toward advancing one or more programs into clinical development.

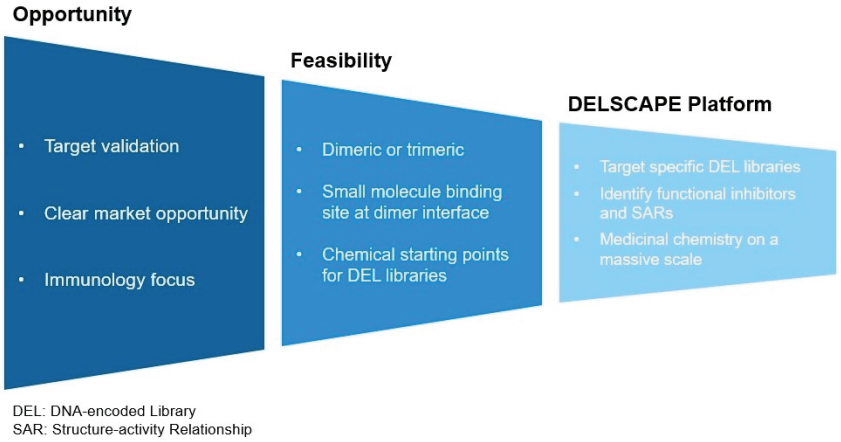
Biologics Have Transformed the Inflammatory Disease Landscape, but Are Not Ideally Suited for Chronic Treatment

Some of the most clinically and commercially successful drugs are biologics that modulate extracellular signaling by binding to cellular receptors or their ligands. One such class of biologics is monoclonal antibodies ("mAbs") which represented an over $150 billion market in 2020. Drugs such as HUMIRA (adalimumab), and REMICADE (infliximab), originally approved in the late 1990s and early 2000s, have transformed the treatment of

inflammatory diseases such as psoriasis, IBD, and psoriatic and rheumatoid arthritis. Although the latest generation of approved biologics demonstrate improved efficacy and dosing intervals, they continue to face the same underlying challenges: (i) requiring administration through subcutaneous injections or intravenous infusions and (ii) regular patient monitoring. Despite generally inferior therapeutic benefit to biologics, there remains a strong preference among many patients and clinicians for orally-administered therapeutics.

Our Proprietary Approach and DELSCAPE Enables the Development of Oral Small Molecules Against Targets Previously Only Druggable with Antibodies

Our approach to drug discovery and development leverages the capabilities of DELSCAPE to determine feasibility, optimize the design of and generate families of specific and potentially potent therapeutic compounds that we consider ideal for advancement to clinical development. We combine this approach with an assessment of attractive, validated market opportunities, informed by our expertise in the field of immunology, to determine our priority targets. We have used this approach to develop therapeutic candidates against the four targets in our current pipeline, and we plan to further pursue this historically difficult class of targets, known as PPIs. The below graphic illustrates our proprietary drug discovery and development strategy.



Opportunity: Target-Validation and Market Opportunity. Central to our process is the identification of targets with strong mechanistic or clinical validation—and in many cases, commercial validation as well. This validation provides us with confidence that modulating the target can provide clinically meaningful benefit in treating human disease, with the goal of reducing the biology risk associated with drug development. In addition, we prioritize programs where the target activity in Phase 1 clinical trials has predicted clinical benefit in subsequent trials for other compounds. Ideal opportunities include indications for which there are only marketed biologics against the target of interest and where we believe that an oral therapy with comparable efficacy would be preferred. There are a number of such opportunities within immunology—approved anti-IL-17 mAbs, for example—in which an oral small molecule capable of blocking the same interaction as its injectable biologic counterpart likely would be a clinically and commercially successful therapeutic. Because the targets of biologics are often PPIs, very few small molecules have been developed against these targets.

Feasibility: PPI-Disruption of Dimeric and Trimeric Targets. We then, based on an assessment of feasibility, prioritize potential targets with structural features that make them ideal candidates for small molecule inhibition using our approach. Inhibition of PPIs by small molecules historically has been challenging because interactions between proteins usually involve large, complementary binding areas that lack features that would allow for small molecules to selectively bind and directly block the PPI. Antibodies can overcome this limitation due to the large nature of their complementary binding areas, but their large size makes them unsuitable for oral administration as they are not absorbed in the gut. We believe that the best opportunities for orally-dosed, small molecule inhibitors of PPIs are presented by targets that are dimeric (having two discrete components) or trimeric (having three discrete components). We have observed that opportunities for potent and selective small molecule binding may be found at the interfaces between the protein components. Importantly, in preclinical studies, we have demonstrated that our small molecule constructs effectively blocked a PPI without directly obscuring the interaction surface. For example, as shown in Figure 1 below, crystal structures show that our IL-17 inhibitors bind in a cleft between the two components of an IL-17 dimer and do not directly block the face that interacts with the IL-17

receptor. Although the bound small molecule (shown in yellow) does not directly block the receptor-binding surface, it potently inhibits the binding of IL-17AA to the receptor.

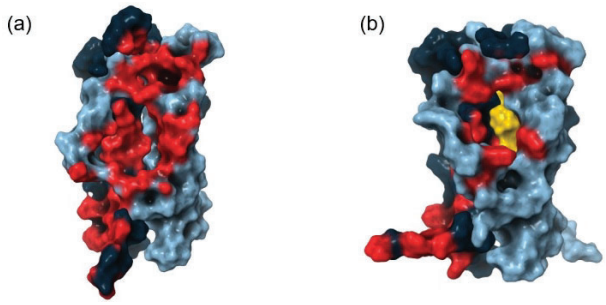


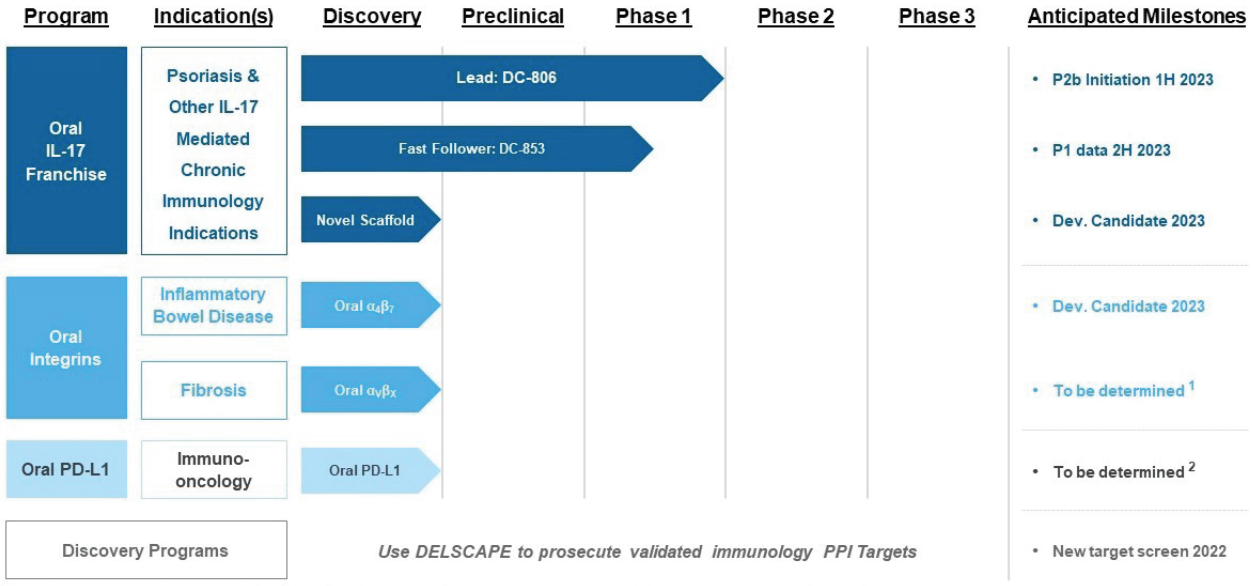
Figure 1: (a) Receptor-bound structure (PDB: 4HSA) of the homodimer IL-17AA with IL-17 receptor hidden to view surface contacts involved in the PPI. The two IL-17A monomers are colored dark blue and light blue and atoms within 4.0Å of IL-17RA are colored red. (b) Structure IL-17AA with our small molecule inhibitor bound in the cleft between the two monomers. Although the bound small molecule does not directly block the receptor-binding surface, it potently inhibits binding of IL-17AA to the receptor.

Our integrin programs provide additional examples of small molecules that have demonstrated the ability to bind at the interface between dimeric proteins and block interaction with their PPI partners. We have identified additional targets of interest, including IL-23, TNFα, FcRn and TSLP, showing evidence of small molecule binding sites at their dimer and trimer interfaces and we intend to explore these opportunities to expand our pipeline of oral PPI inhibitors.

DELSCAPE Platform: Accelerating Hit-to-Lead Development. Finally, we utilize our proprietary DNA-encoded library ("DEL") chemistry to accelerate the hit-to-lead phase of compound optimization. We use DEL in a novel way, producing libraries that incorporate known binders—often with poor potency, selectivity or drug-like properties—into the library design, greatly increasing the percentage of hits and thus the depth of structure-activity relationships ("SAR") we can obtain from a single experiment. With our proprietary approach, we generate smaller, targeted libraries, typically between 100,000 and 1 million discrete compounds, and obtain data that enables both quantitative and qualitative assessment of a landscape of small molecule hits. We therefore do not need to aim for the massive diversity (billion to trillions of compounds) reported by companies that conventionally utilize unbiased DELs for hit-finding and, importantly, not for the hit-to-lead phase of compound optimization. Our approach can extend well beyond binding optimization to further produce insights into functional activity and selectivity. We think of this process as performing medicinal chemistry but on a very large scale, in parallel, and it is what allows us to accelerate this phase of drug discovery against these difficult PPI targets.

Our Pipeline

We are leveraging our proprietary DELSCAPE platform to design and develop a pipeline of wholly-owned oral therapeutic candidates against validated biologic targets to address chronic diseases in immunology and other therapeutic areas. Our pipeline is shown below:



1. DICE has generated multiple lead series with a variety of selectivity profiles ranging from $\alpha_v\beta_1$-selective, to dual selective, to $\alpha_v\beta_6$-selective; we will continue to monitor the evolving α_v integrin clinical landscape for increased target validation prior to committing additional resources to this program
2. In 2022, DICE regained rights to the previously partnered oral PD-L1 program; we intend to re-partner this asset as it is outside of our core immunology focus

Our Oral Therapeutic Candidates Targeting IL-17 for Immunology Indications

Our lead therapeutic candidate, DC-806, is an orally-available small molecule antagonist of IL-17 being developed initially for the treatment of psoriasis with the objective of achieving therapeutic benefit similar to that of the injectable biologics, COSENTYX and TALTZ, with potential expansion of development into indications known to be responsive to IL-17 inhibition. COSENTYX and TALTZ are anti-IL-17 mAbs that inhibit both IL-17AA and IL-17AF isoforms, but not the IL-17FF isoform, and have been approved by the FDA and other foreign regulatory authorities, for the treatment of psoriasis and other immunology indications. The global psoriasis drug market was estimated to be $24.2 billion in 2022 according to Evaluate Pharma, and approved anti-IL-17 mAbs comprised an estimated $5.6 billion. The total market opportunity for therapeutics targeting all IL-17 mAb-approved indications, including psoriasis, represented $32.0 billion in 2022, of which anti-IL-17 mAbs captured $7.5 billion.

In psoriasis, results from pivotal trials for COSENTYX and TALTZ show therapeutic benefits that are approximately double those shown in the pivotal trials for apremilast, an oral phosphodiesterase 4 (PDE4) inhibitor marketed as OTEZLA by Amgen. Despite its inferior therapeutic benefit, OTEZLA generated sales of $2.3 billion in 2022, primarily due to the convenience of its oral administration for patients and clinicians. We therefore believe an oral IL-17 small molecule inhibitor with comparable therapeutic benefit to its systemic biologics counterparts represents a significant market opportunity in psoriasis and other immunology indications where IL-17 inhibition is relevant, including non-radiographic axial spondyloarthritis, ankylosing spondylitis, psoriatic arthritis, juvenile idiopathic arthritis and hidradenitis suppurativa.

In preclinical studies, DC-806 was able to selectively inhibit both IL-17AA and IL-17AF isoforms, while sparing the IL-17FF isoform. Furthermore, we have shown that DC-806 matched the anti-inflammatory activity of an anti-IL-17 mAb in a well-established animal model. The MHRA in the UK approved our CTA in September 2021. In October 2022, we announced positive topline data from our Phase 1 clinical trial in healthy volunteers and psoriasis patients. Clinical proof-of-concept in psoriasis patients was achieved with a mean percentage reduction in PASI from baseline at 4 weeks of 43.7% in the high dose group compared to 13.3% in the placebo group, with an exploratory p-value of 0.0008. Additionally, DC-806 was well tolerated with a favorable safety profile across all dose groups in healthy volunteers and psoriasis patients, with a robust PK profile and clear pharmacodynamic effects on two distinct biomarkers at both high and low doses of DC-806. Collectively these data support further development of DC-806 as a potential best-in-class oral agent for the treatment of psoriasis. Our IND application

was cleared by the FDA in March 2023 and is in effect for DC-806. We plan to advance DC-806 into a global Phase 2b clinical trial in the first half of 2023.

Our IL-17 expertise, coupled with DELSCAPE, has enabled us to build what we believe is the most comprehensive and functional DEL for IL-17 small molecule inhibitors in the industry, and has resulted in the generation of multiple potential therapeutic candidates of IL-17 inhibitors with structural classes distinct from that of DC-806. To take advantage of the depth of our IL-17 capabilities, we have adopted a strategy to advance two additional, structurally-distinct therapeutic candidates through IND-enabling studies, and to progress the first of these candidates into clinical trials. In the second half of 2021, we nominated a development candidate, DC-853, a differentiated fast-follower molecule that in pre-clinical studies has been shown to inhibit IL-17AA and IL-17AF in a manner similar to that of DC-806. The MHRA in the UK approved our CTA for DC-853 in February 2023. We began dosing healthy volunteers in our Phase 1 clinical trial with DC-853 and expect topline data in the second half of 2023. Nomination of a second additional, differentiated, novel scaffold development candidate is expected in 2023. We believe that advancing multiple platform-derived therapeutic candidates unlocks the ability to develop compounds with differentiated properties and has the potential to maximize the value of our IL-17 franchise.

Our α4ß7 Integrin Antagonist Program

Alpha 4 beta 7 ("α4ß7") is a powerful signaling molecule embedded in the cell membranes of immune cells and is an established target for IBD. ENTYVIO (vedolizumab) is an anti-α4ß7 mAb which is approved for the treatment of ulcerative colitis ("UC") and Crohn's disease ("CD"). We believe that there is an unmet need for convenient oral therapies for these indications due to their chronic nature. The dimeric nature of integrins (which consist of one alpha protein subunit and one beta protein subunit), as well as the existence of chemical starting points enabled us to apply DELSCAPE to identify potent and highly selective small molecule inhibitors of α4ß7. We believe that the high selectivity for α4ß7 over α4ß1 is a key feature of ENTYVIO and will be critical for the development of a small molecule therapeutic. Our lead compounds demonstrate over 1,000-fold selectivity for α4ß7 over α4ß1. In contrast, TYSABRI (natalizumab) binds to both α4ß7 and α4ß1, and this selectivity for α4ß1 has been linked to progressive multifocal leukoencephalopathy, resulting in the FDA restricting its use in IBD. Our α4ß7 program is in the lead optimization stage and we expect to nominate a therapeutic candidate for this program by the end of 2023.

Our αVß1/αVß6 Integrin Antagonist Program

We are also evaluating antagonists of the alpha V ("αV") family of integrins for the treatment of fibrosis. Increased expression of the integrins alpha V beta 1 ("αVß1") and alpha V beta 6 ("αVß6") has been observed in patients with idiopathic pulmonary fibrosis ("IPF") and it has been demonstrated that increased levels of αVß1 and αVß6 drive increased activation of TGF-ß, a potent pro-fibrotic mediator. Preclinical data indicates that inhibitors of αVß1 and αVß6 have potential as therapeutics for the treatment of IPF and other fibrotic diseases by reducing TGF-ß activation. DELSCAPE enabled us to identify potentially potent inhibitors of αVß1 and αVß6 with a variety of selectivity profiles ranging from αVß1-selective, to dual-selective, to αVß6-selective. From these hits, we have generated multiple lead series with the potential to provide clinical candidates. We will continue to monitor the evolving αV integrin clinical landscape for additional target validation prior to committing further resources toward advancing the αV integrin antagonist program.

Our Programmed Death-Ligand 1 ("PD-L1") Program

We previously partnered with Sanofi to apply our DELSCAPE platform outside of our core immunology focus. This partnered program was a small molecule against programmed death-ligand 1 ("PD-L1"), an immuno-oncology target that has been clinically and commercially validated with antibody therapeutics. Through our collaboration with Sanofi, we were able to identify small molecules that disrupt this immuno-oncology target in a manner mechanistically similar to the approach taken in our IL-17 and integrin programs. Although the antibodies directed to this target have been successful, there are two areas where we believe that a small molecule solution could have advantages over a biologic. First, a small molecule may have better tissue and membrane penetration than an antibody, with the potential to deliver increased clinical benefit in solid tumors, and potentially in brain tumors. Second, small molecule drugs, in general, have shorter half-lives than antibody therapeutics. In cases where treatment leads to the development of adverse events, the discontinuation of dosing of a small molecule could lead to elimination of a drug from the body within hours and potentially result in more rapid alleviation of an adverse event than an antibody therapeutic, which could remain active for weeks. In March 2022, Sanofi notified the

Company that it no longer intended to develop therapeutic candidates under the partnered program. Due to this program being outside of our core immunology focus, we intend to re-partner this program.

Our Collaborations

Given the broad therapeutic potential of our DELSCAPE platform, we have in the past and will continue to opportunistically evaluate partnerships with leading pharmaceutical companies for drug targets outside our core strategic focus in immunology. We presently have a collaboration with Insitro, which is designed to combine our DELSCAPE platform and Insitro's machine learning-enabled drug discovery capabilities for the discovery and prediction of potential therapeutic candidates.

Our Team

We are led by a team of executives with extensive experience in small molecule drug discovery and development. J. Kevin Judice, Ph.D., our CEO and co-founder, previously served as Chief Scientific Officer at Cidara Therapeutics, a company he helped found. Earlier in his career, he co-founded Achaogen and served as its CEO and CSO. Scott Robertson, our CFO and CBO, served as Business Development Director for DuPont Pioneer and previously was an investment professional at MPM Capital. Timothy Lu, M.D., Ph.D., our Chief Medical Officer, was a Senior Medical Director at Genentech in inflammatory diseases including IBD. John Jacobsen, Ph.D., Chief Scientific Officer, previously was Senior Director of Medicinal Chemistry at Theravance where he led multiple research programs in respiratory diseases and helped transition six compounds into clinical development.

Our Strategy

Our goal is to be an industry leader in PPI disruption biology and drug development. We intend to develop a broad portfolio of oral therapeutic candidates for immunologic diseases with our PPI disruption approach. Our strategies to achieve this goal are:

- ***Maximize the value of our IL-17 franchise by advancing DC-806 through clinical development in psoriasis, exploring potential development in other indications where IL-17 is implicated and advancing at least one other IL-17 inhibitor into clinical development***. We believe our lead program, DC-806, has the potential to capture a significant share of the multi-billion-dollar commercial opportunity in psoriasis by addressing the high unmet need of patients seeking effective, oral therapeutics. Our IND application was cleared by the FDA in March 2023 and is in effect for DC-806. We intend to advance this program into a global Phase 2b clinical trial in the first half of 2023 and through further clinical development, leveraging insights from the drug development and regulatory pathways of already-approved anti-IL-17 mAbs. Following the completion of our planned clinical development in psoriasis, we intend to explore development of DC-806 in other diseases where anti-IL-17 mAbs are already marketed, including non-radiographic axial spondyloarthritis, ankylosing spondylitis, and psoriatic arthritis, as well as those where anti-IL-17 mAbs have demonstrated clinical efficacy, such as juvenile idiopathic arthritis and hidradenitis suppurativa. Furthermore, we are advancing two additional, structurally-distinct therapeutic candidates through IND-enabling studies. In the second half of 2021, we nominated a development candidate, DC-853, a differentiated fast-follower molecule that in pre-clinical studies has been shown to inhibit IL-17AA and IL-17AF in a manner similar to that of DC-806. The MHRA in the UK approved our CTA for DC-853 in February 2023. We began dosing healthy volunteers in our Phase 1 clinical trial with DC-853 and expect topline data in the second half of 2023. Nomination of a second additional, differentiated, novel scaffold development candidate is expected in 2023.
- ***Advance our selective α4ß7 integrin antagonist into the clinic for development in IBD***. We are developing an orally-available α4ß7 integrin antagonist intended to drive anti-inflammatory activity for the treatment of moderate-to-severe IBD. Given the lack of orally-available therapeutics that can safely and effectively achieve sustained remission, we believe that there would be a substantial commercial opportunity for an oral α4ß7 antagonist that could deliver comparable anti-inflammatory activity to the currently marketed biologic and standard of care, ENTYVIO, without the burden associated with injectable administration. Our α4ß7 antagonist program is currently in lead optimization and we anticipate nominating a therapeutic candidate by the end of 2023.

- ***Leverage DELSCAPE and our immunology and PPI disruption expertise to expand our portfolio of therapeutic candidates.*** Our novel use of DELs enables us to explore significantly more structural variants of known active lead molecules than would be practical using traditional medicinal chemistry approaches. This differentiated approach to discovery underpins the demonstrated power of DELSCAPE to generate potential clinical candidates against conventionally difficult-to-drug PPI targets and we believe significantly expands the number of biologic targets that can be modulated with oral small molecules. We are continuing to invest in our computational chemistry capabilities to accelerate our library design and data analysis as we identify and interrogate new targets using DELSCAPE. We have identified additional targets relevant and validated in immunology, such as FcRn, TSLP, TNFα and IL-23, among others, that meet our target selection criteria, and we expect to identify additional targets in the future. We plan to dedicate a portion of our drug discovery efforts toward at least one of these promising targets with the goal of expanding our portfolio of immunology therapeutic candidates.
- ***Evaluate and selectively enter into strategic partnerships to maximize the potential of our pipeline.*** We remain open to opportunistically evaluating and entering into strategic partnerships around certain therapeutic candidates, geographic markets or disease areas. For example, in anticipation of the large global commercial opportunity that a highly effective oral IL-17 antagonist may generate, we may consider partnering DC-806 in late-stage clinical development, regulatory approval and commercialization. In addition, we may partner with leading pharmaceutical companies for drug targets outside our core strategic focus in immunology. We believe selectively entering into collaborations has the potential to expand and accelerate the development of our programs and maximize worldwide commercial potential.

Our Drug Discovery Approach

DELSCAPE is one part of a larger approach to the selection and prosecution of historically difficult PPI targets. When selecting targets for our internal pipeline, we evaluate a number of parameters in parallel before settling on proteins for investigation in our labs.

- ***Validated targets***. We believe that our expertise in small molecule design is best applied to targets that have been validated in the clinic by injectable antibody therapeutics in settings where we believe we can develop orally-available small molecules. This validation provides us with confidence that modulating the target can provide clinically meaningful benefit in treating human disease, with the goal of reducing the biology risk associated with drug development. In addition, we prioritize programs where the target activity in Phase 1 clinical trials has predicted clinical benefit in subsequent trials for other compounds.
- ***Immunology-focused***. We believe that some of the greatest needs for orally available drugs exist in therapeutic areas related to immunology where the most effective currently approved therapies are administered by injection. Diseases in this therapeutic area are often chronic in nature and require lifelong dosing, thereby compounding the burden on patients and clinicians. Accordingly, we believe an orally-administered therapeutic with biologic-like efficacy would be highly attractive for patients and clinicians in this therapeutic area.
- ***Dimeric or trimeric protein-protein interactions***. There are many therapeutic targets that can be targeted by small molecules. The small molecules in our focus are those that are intended to alter PPIs. Historically, those PPI targets have been refractory to inhibition by small molecules. We believe that at least part of the problem has been that the proteins involved in PPI often lack appropriate binding sites for small molecules. In situations where one of the PPI partners is a dimeric or trimeric protein, however, it can be the case that a small-molecule binding site exists at the interface of such a dimer and that compounds binding there can inhibit the larger interaction, as shown with IL-17 in the figure below.
- ***Chemical starting points***. A key feature of DELSCAPE is that it works best when we are able to structurally bias the libraries by using prior SAR of compounds that have been shown to bind to the target in question. We specifically focus on protein targets that fulfill three key criteria: (i) known binders with suboptimal potency, selectivity or drug-like properties have been identified for them; (ii) we have structural insights into how these compounds bind; and (iii) we can identify precise locations where DNA tags could be attached without blocking binding activity.

Our DELSCAPE Platform

Our DELSCAPE platform leverages a chemical technique known as DELs in a novel way that we believe improves our ability to prosecute historically difficult targets such as PPIs with oral small molecule inhibitors.

Historical Design and Utilization of DNA-Encoded Libraries

DELs were developed to enable the synthesis and screening of vast numbers of small molecule drug candidates at a scale that is not possible to achieve by traditional approaches. By covalently linking each small molecule in a large collection (library) of possible hits to a unique DNA tag, each member of the library then carries a barcode that specifies its structure and the means used to make it. Because each member of the library carries its own unique barcode, the entire collection of molecules in the library can be tested simultaneously for their ability to bind to a specific target. In such an assay, the target is immobilized to a solid support and then a sample of the library is passed over it. Individual members of the library that bind to the target thus stick tight, allowing the other, non-binding components of the mixture to be washed away. In the final step of the process the binders are identified, using a procedure such as polymerase chain reaction ("PCR") to read their DNA barcodes. This process typically produces a small number of binders, or hits, which can then serve as starting points for a labor-intensive medicinal chemistry process known as hit-to-lead optimization.

Historically, DELs have been used to generate very large libraries of compounds, typically ranging in size from billions to trillions of individual members. It was felt that the large number of compounds would increase the chances of finding hits, or binders to the target. While this is true in some instances, it overlooks an inescapable fact of such a large library, which is that the few hits within it are vastly outnumbered by compounds that do not bind to the target. Thus, there is very little true signal and a great deal of noise, meaning that even using a technique as sensitive as PCR to read the barcodes of hits one must somehow deal with overwhelming amounts of what are known as false positives, or compounds that appear to bind to the target but are really just random noise. As a result, it can be difficult to get much more useful information from a traditional DEL library than a few hits with which to start a long and manually driven hit-to-lead optimization process.

For these reasons, we believe that traditional DELs represent an incremental advance over approaches that precede them, but they do not offer general solutions to the problem of generating useful drugs against historically difficult targets such as PPIs.

DELSCAPE Accelerates Hit-to-Lead Phase of Drug Discovery

We take a fundamentally different approach to the use of DELs. Rather than focus on making ever-larger collections of compounds, we took the counterintuitive path of making ours smaller. Our libraries are instead designed to have greater focus, with a lower number of distinct compounds than libraries generated for broad screening. They typically have between 100,000 and 8 million discrete compounds, which greatly increases the signal to noise ratio—positive binders—by reducing the noise of non-binders by between a thousand- and a million-fold. As a result, we can elucidate quantitative information on entire families of structurally related compounds in a single experiment, rather than just identifying a few hits. This concept is shown in Figure 3 below.

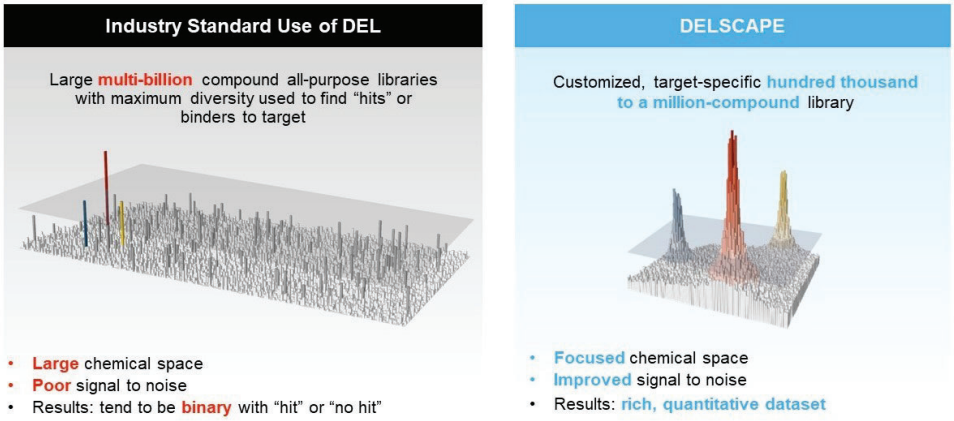


Figure 3: Our focused libraries are designed to provide the ability to conduct high-throughput medicinal chemistry due to a higher signal-to-noise ratio. In this figure, each bar represents an individual compound

where the height of the bar represents its potency. Our focused libraries have multiple structurally related compounds allowing us to gain insight into the impact of series of small chemical modifications on potency. This rich collection of information about the potency of SARs can then inform the design of additional compounds with other drug-like properties such as stability, and therefore contributes to an overall acceleration of the hit-to-lead phase of small molecule drug discovery. This is particularly important when attempting to tackle historically difficult targets such as PPIs**.**

In the figure above on the left, we are illustrating what we call a SAR landscape. In such a figure, one can envision the three-dimensional plot with the X- and Y-axes describing structural features of the molecules under study, while the Z-axis (or vertical axis) describes the relative binding affinity of a given molecule for its target. Each vertical spike in the figure on the left thus represents an individual molecule, while the height of the spike reflects the relative binding affinity of that molecule, with higher spikes corresponding to tighter binders to the target in question.

As illustrated in the plot on the left, there are many spikes arising from the analysis of this large library. However, the ratio of true signal to random noise, described above, will limit the investigator's ability to elucidate all of the information that would otherwise be available from such an experiment. We envision this limitation graphically as a signal to noise floor, below which no useful information can be gleaned and represented here as a transparent gray plane. In this illustration, one can see that only a few spikes protrude above the signal-to-noise floor, thus providing only a few bona-fide hits despite the large number of compounds in the original library.

A DELSCAPE experiment is illustrated conceptually on the right side of Figure 3. In this graphic it is clear that the overall size of the library is smaller, as indicated by the smaller area described in the X- and Y-planes; however, as articulated above, this reduction in overall compound number, when combined with the biased design approach described below, significantly improves the signal-to-noise ratio, indicated graphically here as a lower transparent gray plane. As a result, more spikes protrude above the signal-to-noise threshold and a more comprehensive data set can be derived from this experiment. We have found that libraries constructed and analyzed in this fashion give us numbers of bone fide hits against difficult PPI targets ranging from hundreds to tens of thousands, with rank orders of potency attached to each individual hit. This type of experiment can also identify discrete structural families, shown as differently colored groups of spikes on the right side of Figure 3. The information as to identities of richly populated families of hits, when combined with the detailed rank order of potency shown as spikes of varying heights, can facilitate expedited progress through the hit-to-lead phase as other essential properties of candidate drugs are built in to the molecules.

To summarize, the advantages of DELSCAPE for targeting PPIs over conventional approaches, including more typical and much larger DELs, are as follows:

- ***Higher signal***. This lower complexity results in a higher frequency of individual molecules, which serves to increase the magnitude of the signal for active compounds. For example, in a library of 100,000 molecules, an individual molecule is represented 10,000 times more frequently than it would be in a library of one billion molecules.
- ***Lower noise***. In parallel, the smaller number of compounds we create for our libraries helps to lower the number of false positive compounds that contribute to background noise. This noise would be higher using conventional DELs.
- ***Ability to deeply explore variants of known active molecules***. Our use of DELs enables us to explore far more structural variants of known hit molecules than would be practical using traditional chemistry approaches. Using this approach, we can rapidly identify compounds that meet our pre-specified design objectives.

Our IL-17 Programs

Our lead therapeutic candidate, DC-806, is an orally-available small molecule antagonist of IL-17 being developed initially for the treatment of psoriasis with the objective of achieving therapeutic benefit similar to that of the injectable biologics, COSENTYX and TALTZ, with potential expansion of development into indications where IL-17 inhibition has shown therapeutic benefit.

DC-806 was designed precisely to target the most inflammatory members of the IL-17 family, notably the AA and AF isoforms, with the goal of providing the greatest therapeutic potential and a reduced likelihood of off-target side effects. In preclinical studies, DC-806 was able to selectively inhibit both IL-17AA and IL-17AF isoforms, while sparing the IL-17FF isoform. In clinical trials conducted by third parties, the simultaneous inhibition of all three isoforms has been linked to increased adverse events compared to simultaneous inhibition of IL-17AA and IL-17AF only.

The MHRA in the UK approved our CTA in September 2021 and in October 2022, we announced positive topline data from our Phase 1 clinical trial in healthy volunteers and psoriasis patients. Clinical proof-of-concept in psoriasis patients was achieved with a mean percentage reduction in PASI from baseline at 4 weeks of 43.7% in the high dose group compared to 13.3% in the placebo group, with an exploratory p-value of 0.0008. Additionally, DC-806 was well tolerated with a favorable safety profile across all dose groups in healthy volunteers and psoriasis patients, with a robust PK profile and clear pharmacodynamic effects on two distinct biomarkers at both high and low doses of DC-806. Collectively these data support further development of DC-806 as a potential best-in-class oral agent for the treatment of psoriasis. Our IND application was cleared by the FDA in March 2023 and is in effect for DC-806. We plan to advance DC-806 into a global Phase 2b clinical trial in the first half of 2023.

To take advantage of the depth of our IL-17 capabilities, we have adopted a strategy to advance two additional, structurally-distinct therapeutic candidates through IND-enabling studies, and to progress the first of these candidates into clinical trials. In the second half of 2021, we nominated a development candidate, DC-853, a differentiated fast-follower molecule that in pre-clinical studies has been shown to inhibit IL-17AA and IL-17AF in a manner similar to that of DC-806. The MHRA in the UK approved our CTA for DC-853 in February 2023. We began dosing healthy volunteers in our Phase 1 clinical trial with DC-853 and expect topline data in the second half of 2023. Nomination of a second additional, differentiated, novel scaffold development candidate is expected in 2023. We believe that advancing multiple platform-derived therapeutic candidates unlocks the ability to develop compounds with differentiated properties and has the potential to maximize the value of our IL-17 franchise.

Psoriasis Disease Background

Psoriasis is a chronic, inflammatory skin disease characterized by rapid turnover, excessive proliferation and lack of differentiation of skin cells (keratinocytes). Psoriasis is estimated to affect more than 125 million people worldwide and more than 8 million people in the United States. According to Evaluate Pharma, the global psoriasis market was estimated to be $24.2 billion in 2022. In plaque psoriasis, the most common type of psoriasis, patches of skin called lesions or plaques become red and inflamed and are covered by a white scale. The extent of inflammation can be limited to a few lesions or can involve moderate to large areas of the skin and scalp. A standard measure of disease is the PASI score, which takes into account the percent of body surface area affected and the severity of the lesions. Psoriasis is not simply a cosmetic problem; it is associated with many comorbidities including psoriatic arthritis, CD, psychological and psychiatric disorders, uveitis, metabolic syndrome, cardiovascular, celiac disease, nonalcoholic fatty liver disease and erectile dysfunction. In a recent survey, nearly 60% of people with psoriasis reported missing an average of 26 days of work a year attributable to their illness.

The Role of IL-17 Signaling in Psoriasis

One of the primary drivers of the inflammatory response in psoriasis is IL-17. IL-17 regulates the proliferation of keratinocytes and down-regulates their differentiation. It also induces keratinocytes to secrete other signaling molecules, called chemokines, that drive the influx of immune cells, including neutrophils and dendritic cells. Skin inflammation is driven by the production of inflammatory molecules such as TNFα and nitric oxide from these immune cells.

IL-17 consists of a family of related cytokines, of which IL-17A and IL-17F are the most well-characterized. Both are expressed by a subset of T cells termed Th17 cells. These proteins naturally assemble into a trio of biologically-active dimeric proteins: IL-17AA, IL-17AF and IL-17FF. IL-17AA is the most potent version of the three and acts as a pro-inflammatory signal in diseases such as psoriasis. The structures of these three isoforms are shown in the figure below.

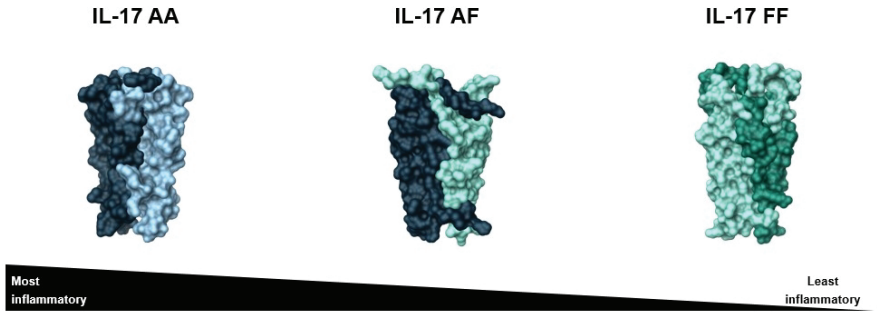


Figure 4. Structure of the IL-17 isoforms and their relative contributions toward inflammatory signaling. IL-17 is also important in mediating host resistance to extracellular bacterial and fungal infections.

In some patients, excessive secretion of IL-17 by Th17 cells leads to the development of autoimmune disorders. IL-17AF and IL-17FF play lesser but still significant roles in these diseases. Because of its central role in driving psoriasis, IL-17 is an attractive target for therapeutic development. Approved biologics such as COSENTYX and TALTZ inhibit both IL-17AA and IL-17AF, but not IL-17FF.

Current Treatments for Psoriasis

There is no cure for psoriasis; patients and clinicians instead manage the symptoms of the disease with chronic therapeutic treatment. Initial treatments are typically topical therapies including keratolytics, or skin softening agents such as salicylic acid, benzoyl peroxide and glycolic acid, that serve to loosen dry skin and help reduce inflammation. Patients who do not respond are treated with topical anti-inflammatory and immunosuppressant drugs including corticosteroids and calcineurin inhibitors. The drawbacks of topical treatments include poor adherence, skin irritation, the need for continuous use and the lack of efficacy in treating systemic inflammation.

Approved Oral Systemic Therapies

Patients with more extensive psoriasis, typically covering more than five percent of their body surface area, or psoriasis in areas which are more difficult to treat with topical therapies, such as the scalp, are typically treated with systemic drugs. The first line of systemic therapy after topical therapies are orally administered therapies, but their use is limited by weak long-term efficacy and adverse events.

Methotrexate, used to treat psoriasis since 1971, remains the most widely used systemic therapy, although its use continues to decline due to concerns about side effects including hepatotoxicity and bone marrow suppression that require mandatory routine monitoring. Cyclosporine, a potent immunosuppressant, is another oral option, however, it is associated with a number of adverse events and its use in psoriasis carries a boxed warning for renal toxicity requiring chronic monitoring and limiting long term use. OTEZLA (apremilast), first approved in 2014, is an oral PDE4 inhibitor. In two pivotal clinical trials, 29-33% of patients treated with OTEZLA achieved a PASI 75 response after 16 weeks of therapy, meaning that their PASI score declined by 75% or more following treatment. In the placebo groups, this response rate was only 5-6%. In these trials, patients treated with OTEZLA experienced on average a 30-40% reduction from baseline in their PASI scores at four weeks with an average placebo response of 13-15% reduction. Of the patients who discontinue treatment with OTEZLA, 71% do so because of lack of efficacy. Although safety concerns are considered lower with OTEZLA than with biologic therapies or methotrexate, approximately nine percent of patients treated with OTEZLA experience diarrhea or nausea. Despite these limitations, worldwide sales of OTEZLA totaled $2.3 billion in 2022. SOTYKTU (deucravacitinib), approved in September of 2022, is an allosteric inhibitor of tyrosine kinase 2 (TYK2). In two pivotal clinical trials, 54-59% of patients treated with SOTYKTU achieved a PASI 75 response after 16 weeks of therapy. In the placebo groups, this response rate was 9-13%. In these trials, patients treated with SOTYKTU experienced a 40-43% reduction from baseline in their PASI scores at four weeks with an average placebo response of 17-18% reduction. SOTYKTU's long-term safety profile remains unknown, and will be further evaluated in an FDA mandated post-marketing safety study.

A 30-milligram dose of OTEZLA, administered twice daily, was evaluated in two pivotal trials (ESTEEM-1 and ESTEEM-2) with 844 and 413 patients, respectively. A 6-milligram dose of SOTYKTU, administered once daily, was evaluated in two pivotal trials (POETYK PSO-1 and POETYK PSO-2) with 666 and 1020 patients, respectively.

Approved Injectable Biologic Therapies

If oral therapies fail, injectable biologic therapies are then used. These therapies target inflammatory molecules such as TNFα, IL-17, IL-23 and IL-12/IL-23. Approved biologic therapies typically are able to induce PASI 75 response in 60-90% of patients within 12 to 16 weeks in clinical trials. Two approved anti-IL-17 mAbs, TALTZ and COSENTYX, have some of the highest reported rates of PASI 75 responses achieved within twelve weeks. For TALTZ in its three pivotal trials, this figure was 87-90% (placebo was 2-7%) of patients and for COSENTYX, this figure was 77-82% (placebo was 5%) in its two pivotal trials. By comparison, anti-TNFα, anti-IL-23 and anti-IL-12/23 mAbs have demonstrated PASI 75 responses in 71-80% (placebo was 7-19%), 64-91% (placebo was 6-10%) and 66-76% (placebo was 3-4%) of patients, respectively.

In these clinical trials, patients treated with anti-TNFα mAbs or COSENTYX achieved an average reduction in PASI scores from baseline at four weeks of 52-57% (placebo was 9-15%) and 50-65% (placebo not reported), respectively.

COSENTYX was evaluated in two pivotal trials (ERASURE and FIXTURE) with 738 and 1,306 patients, respectively. In each trial, COSENTYX was administered 150- or 300-milligrams weekly for four weeks, followed by 150- or 300-milligrams monthly, respectively. TALTZ was evaluated in three pivotal trials (UNCOVER-1, UNCOVER-2, and UNCOVER-3) with 1,296 and 1,224 and 1,346 patients, respectively. In each trial, TALTZ was administered with a starting dose of 160-milligrams followed by 80-milligrams either every 2 weeks or every 4 weeks. Anti-TNFα biologics were evaluated in two pivotal trials (REVEAL and CHAMPION) with 1,212 and 271 patients, respectively. In each trial, 40-milligrams of anti-TNFα biologics were administered every other week.

Despite the high efficacy of biologics, their use for the treatment of psoriasis remains relatively low compared to the population of patients who could potentially benefit. In the United States, an analysis of Medicare claims found that only 10% of moderate-to-severe psoriasis Medicare patients were being treated with biologics. The uptake of biologics has remained limited due to multiple factors including: (i) the fact that biologics are indicated only for use in moderate to severe patients; (ii) their high cost and chronic dosing requirement, which can be as much as $180,000 per year; (iii) reimbursement and access restrictions; (iv) high patient co-pays; (v) a perceived risk of side effects by clinicians; and (vi) the inconvenience of injectable administration.

The Unmet Medical Need in Psoriasis

While there are now numerous approved therapies for psoriasis, we believe there remains a significant unmet medical need for patients and clinicians to effectively and conveniently manage this chronic disease. Although the latest generation of approved biologics are considered to be highly efficacious and are generally able to control disease more effectively, there remains a strong preference among many patients and clinicians for orally-administered therapies, which are commercially successful today despite their limitations. For example, more than twice as many psoriasis patients treated with COSENTYX achieve a PASI 75 response within 12 weeks as compared with those treated with orally-available OTEZLA at 16 weeks, as shown in the figure below. Even after extended dosing, the percentage of patients achieving PASI 75 response with OTEZLA does not approach that of COSENTYX. Despite this inferior efficacy, OTEZLA generated $2.3 billion in global sales in 2022, driven in part by a preference for oral therapies within the psoriasis community.

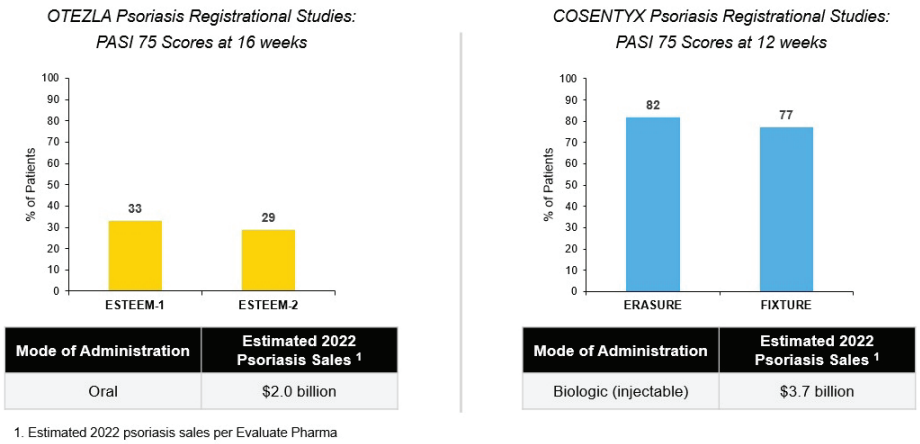


Figure 5. PASI 75 response rates for COSENTYX (secukinumab) and OTEZLA (apremilast) in their registrational clinical trials.

Accordingly, we believe the prospect of an orally-administered therapy with comparable efficacy to injectable biologics in psoriasis would be a commercially successful therapeutic. In particular, oral therapies that address targets such as IL-17 represent highly attractive opportunities due to the strong clinical validation, known efficacy and low risks of adverse events associated with approved drugs against these targets.

Our Solution: Small Molecule Inhibitors of IL-17 and Our Lead Molecule, DC-806

Our lead therapeutic candidate, DC-806, is an orally-available small molecule antagonist of IL-17 being developed initially for the treatment of psoriasis with the objective of achieving therapeutic benefit similar to that of the injectable biologics, COSENTYX and TALTZ. The MHRA in the UK approved our CTA in September 2021 and in October 2022, we announced positive topline data from our Phase 1 clinical trial in healthy volunteers and psoriasis patients. Clinical proof-of-concept in psoriasis patients was achieved with a mean percentage reduction in PASI from baseline at 4 weeks of 43.7% in the high dose group compared to 13.3% in the placebo group, with an exploratory p-value of 0.0008. Additionally, DC-806 was well tolerated with a favorable safety profile across all dose groups in healthy volunteers and psoriasis patients, with a robust PK profile and clear pharmacodynamic effects on two distinct biomarkers at both high and low doses of DC-806. Collectively these data support further development of DC-806 as a potential best-in-class oral agent for the treatment of psoriasis. Our IND application was cleared by the FDA in March 2023 and is in effect for DC-806. We plan to advance DC-806 into a global Phase 2b clinical trial in the first half of 2023.

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Our Approach to Identifying Small Molecule IL-17AA and IL-17AF Antagonists Using DELSCAPE

We based our drug discovery efforts on structural information from small molecules in the literature that are known to bind to IL-17AA. We used this structural information to generate DELs and synthesized and then screened millions of compounds for binding to this site. We were specifically interested in those molecules that bound to IL-17AA but were unable to bind to the IL-17AA plus receptor complex. The results of our screening identified two broad classes of compounds: those that bound with equal potency to the receptor complex and to IL-17AA alone; and those with the desired property that they bound potently to IL-17AA but had weak binding to the receptor complex. Compounds of the latter type are desired because selective binding to IL-17AA alone is consistent with a compound that can inhibit IL-17AA from binding to its receptor as illustrated in Figure 6 below.

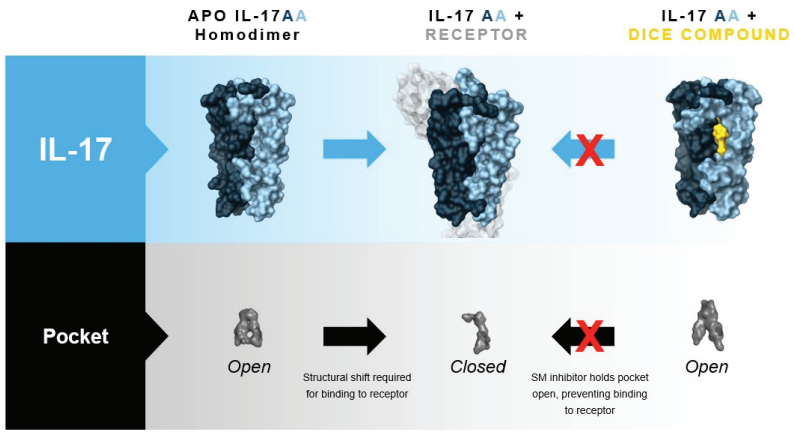


Figure 6: Binding of compounds in a specific pocket in IL-17 can prevent a conformational change required for IL-17 to bind to its receptor, thereby inactivating it.

Through a single screen, we were able to identify compounds that met our initial design objectives and, because of the richness of the number of active compounds, this screen also provided us with a wealth of information about the impact of specific chemical modifications we had made on the binding potency and selectivity of our early candidates. The results from this screen led us to the identification of DC-806 and its structural class, which selectively inhibit both IL-17AA and IL-17AF isoforms. Further, the results steered us away from working on compounds that were unlikely to ever meet our objective of inhibiting IL-17AA and IL-17AF as shown in Figure 7 below.

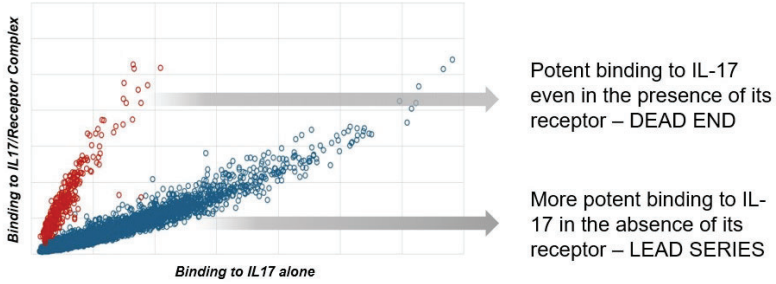


Figure 7: A DNA-encoded custom library for IL-17 binders led to the identification of two classes of molecules, one of which led to our lead therapeutic candidate.

Mechanism of Action of DC-806

We designed DC-806 and our other small molecule inhibitors of IL-17 to bind to a pocket on IL-17AA, the member of the IL-17 family believed to be the primary driver of psoriasis. We have shown that a compound binding to this pocket prevents IL-17AA binding to its receptor, and our preclinical data demonstrated that DC-806 binds to a similar pocket in IL-17AF and prevents its binding to the receptor as well. The net effect is that DC-806 and our other molecules that bind to this site inhibited IL-17AA and IL-17AF signaling to the same extent as anti-IL-17A antibodies, while sparing IL-17FF, as shown in the figure below.

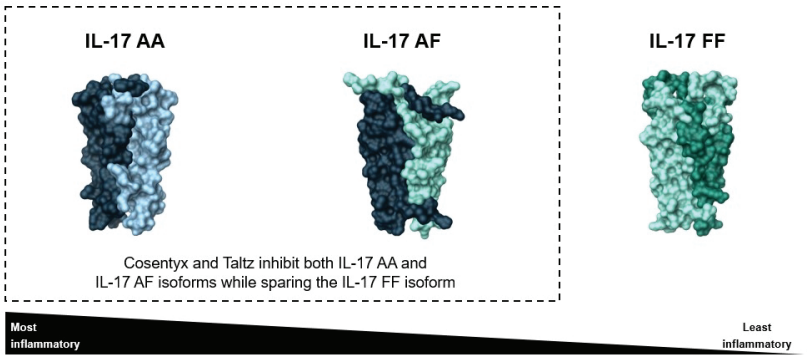


Figure 8. Structure of the three IL-17 isoforms and their relative contributions toward inflammatory signaling.

Head-to-head comparison of DC-806 to COSENTYX (secukinumab) in a cell-based assay

To assess the ability of DC-806 to block signaling via IL-17 produced by primary human T- cells, we cultured Th17 cells and used the culture media containing cytokines secreted from these cells to stimulate HEK reporter cells expressing the IL-17 receptor. We determined that the cytokine mixture secreted by these Th17 cells contains IL-17AA, IL-17AF and IL-17FF. As shown in the figure below, DC-806 (blue line, solid blue circles) achieved the same maximal level of inhibition as a high dose of COSENTYX (dotted line). In addition, we observed that compound DX-891126 achieved less overall inhibition than either COSENTYX or DC-806. In a separate experiment, we determined the activity of all three of these molecules against the individual isoforms of IL-17AA and IL-17AF. COSENTYX inhibited IL-17AA and IL-17AF (IC50 values of 0.5 and 8.2 nM, respectively); DC-806 also inhibited IL-17AA and IL-17AF (IC50 values of 12 and 139 nM, respectively); and DX-891126 inhibited IL-17AA (IC50 value of 28 nM) and did not inhibit IL-17AF to any meaningful extent (IC50 value > 10,000 nM). None of the three molecules under evaluation here showed inhibition of IL-17FF at biologically relevant concentrations.

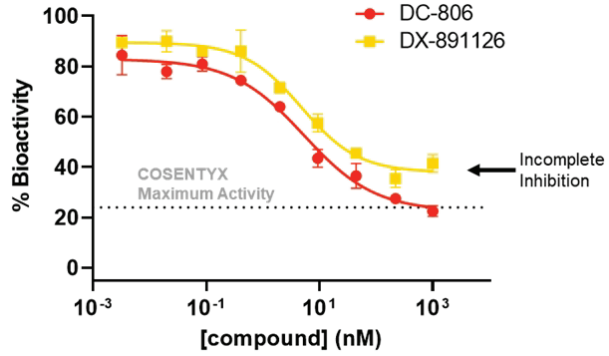


Figure 9. Comparison of inhibition of IL-17 mediated signaling by COSENTYX, DC-806, and DX-891126.

We believe that the ability of DC-806 to spare the blockade of IL-17FF signaling may be beneficial, as IL-17FF has been implicated in preventing mucosal infections based on mouse knockout experiments. Consistent with this finding, published results from a Phase 3 trial of bimekizumab, an antibody that blocks all three isoforms of IL-17, indicate that treatment was associated with approximately 19% of patients developing oral candidiasis compared with 3% of patients treated with COSENYTX.

We tested the *in vivo* activity of DC-806 in a rat collagen-induced arthritis ("CIA") model. In this model, immune-driven arthritis was induced by injection of collagen into an ankle joint. Ten days after the initial administration of collagen, rats were treated with orally administered DC-806 or a rat-surrogate for secukinumab that inhibited IL-17AA and IL-17AF signaling. This is a robust model of inflammation that is known to have a significant IL-17-driven component. The 20 mg/kg dose provides the maximal anti-inflammatory effect achievable by the antibody control. DC-806 matches this level of inhibition, indicating that this small molecule inhibitor can suppress the inflammation driven by IL-17A in a disease model to an equivalent degree as antibody-based therapy, as shown in the figure below.

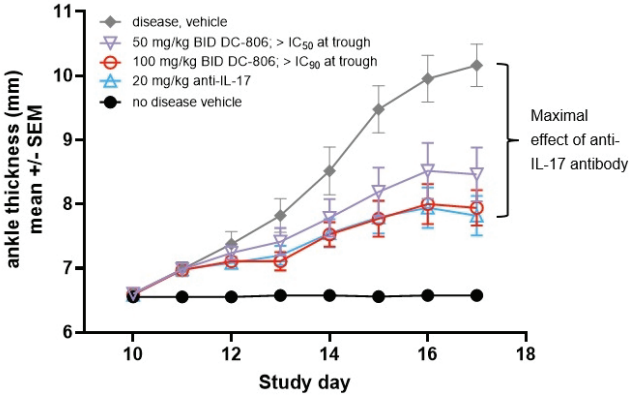


Figure 10: DC-806 and an IL-17 antibody led to similar levels of anti-inflammatory activity in a rat CIA model, as demonstrated by reduced ankle swelling.

Clinical Development of DC-806

Phase 1

Our CTA was approved in September 2021 and in October 2022, we announced positive topline data from our Phase 1 clinical trial in healthy volunteers and psoriasis patients. The trial was a first-in-human, randomized, double-blind, placebo-controlled study designed to generate safety and PK data in healthy volunteers as well as provide early clinical proof of concept in psoriasis patients. The trial was conducted in three overlapping parts: Phase 1a single ascending dose ("SAD") (n=40); Phase 1b multiple ascending dose ("MAD") (n=32); and Phase 1c proof-of-concept in psoriasis patients (n=32).

DC-806 was well tolerated with a favorable safety profile across all dose groups in healthy volunteers and psoriasis patients at all dose levels evaluated with no serious adverse events, no dose-limiting adverse events, no treatment-related discontinuations, and no clinically-significant changes in clinical and safety lab parameters (including liver enzymes). All treatment emergent adverse events ("TEAEs") were classified as mild or moderate with no dose-dependent trend in the frequency, severity, or type of TEAEs observed. Additionally, DC-806 showed a favorable PK profile with dose-proportional increases in serum concentrations throughout the study. Analysis of the MAD and Phase 1c data showed achievement of IC50 and IC90 coverage at trough with doses of 175 mg QD and 400 mg BID, respectively.

Daily target coverage of IL-17 AA (hours) at steady state (MAD day 7)		
Dose Regimen	**IC_{50}**	**IC_{90}**
175mg QD	24	6
200mg BID	24	18
400mg BID	24	24
800mg BID	24	24

Figure 11: PK profile of DC-806: Target coverage of IL-17AA (hours) at steady state.

The Phase 1c, placebo-controlled psoriasis portion enrolled a total of eight patients in the high dose group (800 mg BID), 13 patients in the low dose group (200 mg BID), and 11 patients in the placebo group. Following four weeks of treatment, the mean percentage reduction in PASI from baseline was 43.7% in the high dose group compared to 13.3% in the placebo group, with an exploratory p-value of 0.0008. Reduction in PASI was an exploratory endpoint with no correction for multiplicity.

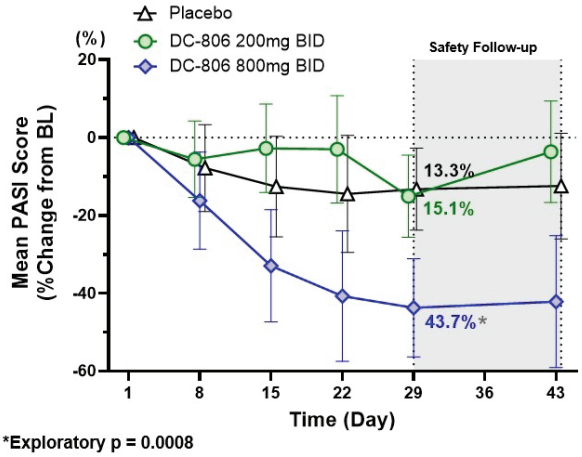


Figure 12: Efficacy results of the Phase 1c study in psoriasis patients with DC-806.

Exploratory biomarker data demonstrated dose-dependent IL-17 target engagement, rapid onset of action, and pharmacodynamic effects consistent with direct inhibition of IL-17 signaling. DC-806 demonstrated a dose-dependent increase in serum IL-17A levels, a measure of target engagement, and reductions in beta defensin-2 (BD-2), a microbial peptide secreted by inflamed keratinocytes in psoriasis patients. The 200 mg BID and 800 mg BID

cohorts of DC-806 demonstrated serum IL-17A level increases comparable to the approved doses of IL-17 receptor antagonist brodalumab and similar BD-2 reductions as secukinumab.

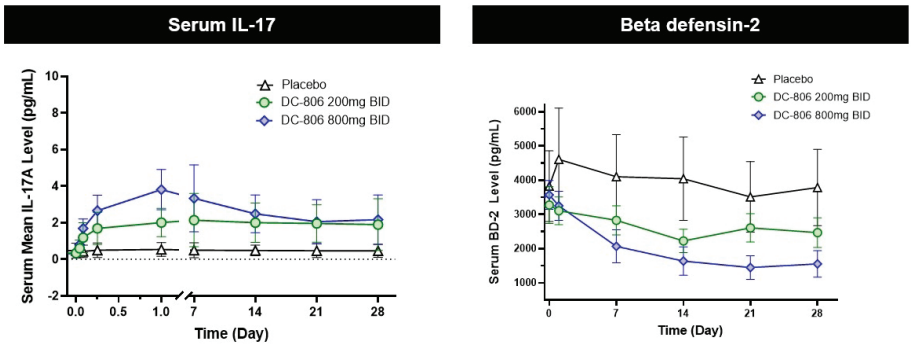


Figure 13: Serum IL-17 and Beta defensin-2 biomarker data for DC-806.

We have also performed additional biomarker analysis from our completed Phase 1c trial studying DC-806 in a cohort of psoriasis patients. Results from a third-party study of psoriasis patients treated with TALTZ (ixekizumab) and other psoriasis therapies show a correlation, following start of treatment, between the reduction of IL-19 levels below the upper limit of normal within two weeks and subsequent attainment of clinical endpoints such as PASI 90 and PASI 100 at 16 weeks. In our Phase 1c trial, patients treated with DC-806 demonstrated dose-proportional decreases in IL-19 levels within two weeks comparable to those seen with TALTZ (ixekizumab) in the third-party study.

In the Phase 1c portion of the trial, mild-to-moderate psoriasis patients were enrolled with baseline PASI scores between 6 and 7 for the three trial cohorts. These cohorts demonstrated a PASI improvement from baseline of 13.3%, 15.1% and 43.7% for the placebo cohort, 200 mg BID cohort, and 800 mg BID cohort, respectively. Since subsequent clinical trials evaluating DC-806 will enroll moderate-to-severe psoriasis patients, a subgroup analysis examining psoriasis patients with baseline PASI scores of greater than or equal to 6 was conducted. In this subgroup analysis, PASI improvements from baseline of 11.0%, 31.4%, and 47.0% were observed in the placebo cohort, 200 mg BID cohort, and 800 mg BID cohort, respectively.

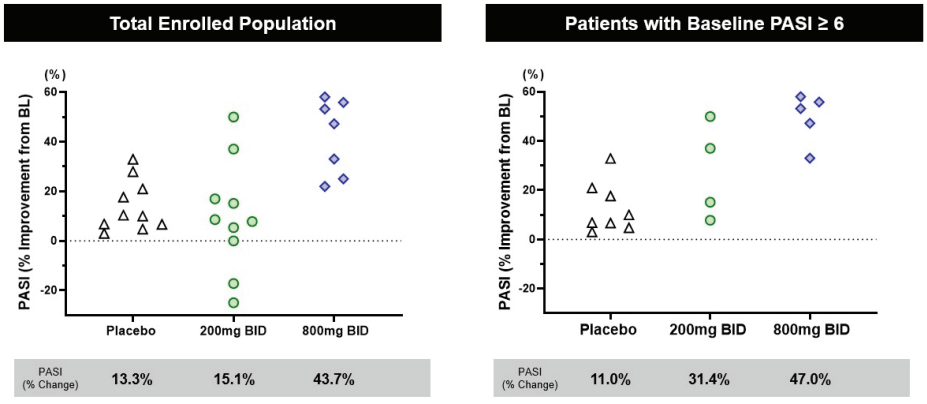


Figure 14: DC-806 efficacy data by individual patient in the total enrolled population and the PASI ≥ 6 subgroup analysis.

We believe that the results of the Phase 1 trial demonstrate a favorable safety and tolerability profile, clear efficacy signal, robust PK profile, and clear pharmacodynamic effects on two distinct biomarkers at both high and low doses of DC-806. Our IND application was cleared by the FDA in March 2023 and is in effect for DC-806. We plan to advance DC-806 into a global Phase 2b clinical trial in the first half of 2023.

Our Oral IL-17 Franchise

Our IL-17 expertise, coupled with DELSCAPE, has enabled us to build what we believe is the most comprehensive and functional DEL for IL-17 small molecule inhibitors in the industry, and has resulted in the generation of multiple potential therapeutic candidates of IL-17 inhibitors with structural classes distinct from that of

DC-806. Given IL-17 is a well-validated clinical target, we believe that the primary risks associated with DC-806 are those common to small molecule drugs: getting sufficient drug exposure to see PK with a convenient dosing schedule, and safety. To take advantage of the depth of our IL-17 capabilities, we intend to advance two additional, structurally-distinct therapeutic candidates through IND-enabling studies, and to progress the first of these candidates into clinical trials. We believe that advancing multiple platform-derived therapeutic candidates unlocks the ability to develop compounds with differentiated properties and maximizes the value of our IL-17 franchise.

We believe that there will be the potential to develop both DC-806 and other molecules emerging from our IL-17 program in a number of indications in which IL-17 antibodies have demonstrated clinical efficacy including psoriasis, hidradenitis suppurativa, non-radiographic axial spondyloarthritis, ankylosing spondylitis and psoriatic arthritis.

Fast-Follower: DC-853

Executing on our stated oral IL-17 franchise strategy, we nominated a development candidate, DC-853, in the second half of 2021. DC-853 is a differentiated fast-follower molecule that, in pre-clinical studies, has been shown to inhibit IL-17AA and IL-17AF with a mechanism of action similar to that of DC-806. In *in vitro* assays, DC-853 appears to be more potent against the IL-17AA and IL-17AF isoforms when compared to DC-806.

Compound	Purified recombinant cytokines		TH_{17} Cell supernatant
	IL-17AA	IL-17AF	
DC-806	5.7	130	5.8
DC-853	3.0	25	2.3

Figure 15: DC-806 and DC-853 *in vitro* potency against IL-17AA and IL-17AF isoforms

In the rat CIA model, DC-853 matches the level of IL-17 inhibition exhibited by both an anti-IL-17 antibody and DC-806. DC-853 was able to match this inhibitory effect despite utilizing lower doses than DC-806.

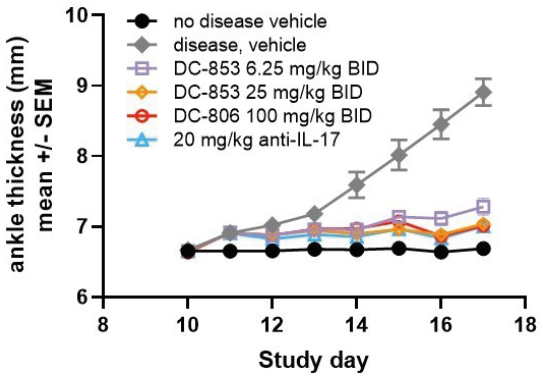


Figure 16: DC-853, DC-806 and an IL-17 antibody led to similar levels of anti-inflammatory activity in a rat CIA model, as demonstrated by reduced ankle swelling.

The MHRA in the UK approved our CTA for DC-853 in February 2023. We began dosing healthy volunteers in our Phase 1 clinical trial with DC-853 and expect topline data in the second half of 2023.

Novel Scaffold Program

Executing on our oral IL-17 franchise strategy, we intend to advance our novel scaffold program through IND-enabling studies. This program aims to identify an additional IL-17 inhibitor with the same mechanism of action as DC-806, but which is significantly differentiated from DC-806 in terms of chemical structure. Our novel scaffold program is in the lead optimization stage and we expect to nominate a therapeutic candidate for this program by the end of 2023.

Our Alpha 4 Beta 7 Integrin Program

α4ß7 is a powerful signaling molecule embedded in the cell membranes of immune cells and is an established target for IBD. ENTYVIO (vedolizumab), marketed by Takeda, is an injectable anti-α4ß7 mAb which is approved for the treatment of UC and CD. We are developing our orally-available α4ß7 integrin antagonist in a manner designed to mimic the anti-inflammatory actions of ENTYVIO, specifically its high selectivity for α4ß7 over α4ß1. Our lead compounds demonstrated over 1,000-fold selectivity for α4ß7 over α4ß1. In contrast, TYSABRI (natalizumab), marketed by Biogen, binds to both α4ß7 and α4ß1, and this selectivity for α4ß1 has been linked to progressive multifocal leukoencephalopathy, resulting in the FDA restricting its use in IBD. Our α4ß7 program is in the lead optimization stage and we expect to nominate a therapeutic candidate for this program by the end of 2023.

Ulcerative Colitis Disease Background

UC is a form of IBD characterized by inflammation and ulcers in the large intestine. The clinical symptoms of UC are diarrhea and bloody stool. Its clinical course is marked by exacerbations and remissions, which may occur spontaneously or in response to dietary changes, alterations in treatment regimens, or other illnesses or stress.

UC can be debilitating and can sometimes lead to life-threatening complications. Frequent diarrhea and bloody stools can lead to weight loss, dehydration and anemia. Persistent UC is associated with an increased risk of developing colon cancer. The Centers for Disease Control estimates that there are three million individuals in the United States with IBD, of which roughly half have UC. A similar number of individuals in Europe are estimated to have UC.

UC is typically treated with anti-inflammatory drugs starting with more moderate and locally-delivered drugs, and progressing to systemic immunosuppressive drugs for patients with refractory disease. First line therapy for patients with mild disease consists of 5-aminosalicylates such as mesalamine and sulfasalazine. Patients with more severe disease are treated with systemic corticosteroids, with the intent of inducing remission and transitioning patients to better-tolerated drugs such as 5-aminosalicylates for maintenance. Some patients may be treated with systemic immunomodulatory drugs such as azathioprine, cyclosporine and XELJANZ (tofacitinib). Anti-inflammatory biologics such as TNFα antagonists REMICADE (infliximab), HUMIRA (adalimumab) and SIMPONI (golimumab) and the IL-12/IL-23 antagonist STELARA (ustekinumab) are effective in inducing remission in patients with moderate to severe UC.

ENTYVIO (vedolizumab) was first approved by the FDA to treat UC and CD in 2014. In clinical trials, approximately 30% of patients receiving ENTYVIO achieved remission at the end of one year of treatment. ENTYVIO is administered as a 30-minute intravenous infusion at zero, two and six weeks, then every eight weeks thereafter. Long term therapy is generally well-tolerated in patients, but frequent dose adjustments have been reported to be required to maintain efficacy. Despite this inconvenience, Entyvio sales in 2022 are anticipated to be approximately $5.5 billion per Evaluate Pharma.

Crohn's Disease Background

CD is a chronic inflammatory disease that most commonly affects the end of the small intestine and the beginning of the large intestine, although it may involve any part of the gastrointestinal tract. Both CD and UC are types of IBD and many of the symptoms and demographics overlap. In addition to the potential of CD developing in other segments of the intestine, CD differs from UC in that there can be normal healthy tissue in between patches of diseased tissue in CD, unlike UC where the inflammation is continuous. CD can also occur in all layers of the intestinal wall unlike UC which is limited to the inner most layer. It is estimated that there are 1.5 million individuals in the United States and 1.1 million individuals in Europe with CD.

The treatment paradigm for CD is very similar to that of UC with currently approved therapies focused on anti-inflammatory agents. Nearly 60% of CD patients will require surgery within twenty years of diagnosis to treat complications such as fistulas, or abnormal connections between body parts, life-threatening bleeding and intestinal obstructions.

While there are numerous approved therapeutics for UC and CD, we believe there remains a significant unmet medical need for patients and clinicians to effectively and conveniently manage these chronic diseases, which we believe could be facilitated by effective oral therapies.

Role of the α4ß7 Integrin in IBD

Integrins are the principal receptors used by cells to bind to the extracellular matrix. They are heterodimers consisting of one of 24 alpha subunits and one of nine beta subunits, with the 24 different combinations that have been observed involved in a variety of biological roles. Specific combinations of alpha and beta heterodimers have distinct biological functions. The alpha 4 subunit can form heterodimers with beta 1 and beta 7 subunits. In the gut, α4ß7 integrin has been shown to drive trafficking of lymphocytes to mucosal tissues leading to disease pathogenesis in IBD. On the other hand, α4ß1 is associated with other inflammatory diseases such as multiple sclerosis ("MS"). Antibodies with activity towards α4ß1, such as TYSABRI, have been approved for the treatment of MS, but carry a boxed warning due to the risk of progressive multifocal leukoencephalopathy leading to death or severe disability, driven in part by its activity towards α4ß1. ENTYVIO, which binds only to α4ß7 integrin and not α4ß1, does not carry this warning.

Integrin Antagonists: Challenges of Small Molecule Development

Two integrins of interest in immunologic disease, the integrins α4ß7 and α4ß1, have significant structural similarities, sharing a common alpha subunit. In order to develop a small molecule that provides a comparable therapeutic effect to the mAb ENTYVIO, high selectivity for α4ß7 over α4ß1 is required. Distinguishing between these integrins is a significant challenge with small molecule drugs. We believe our approach gives us an advantage in discovering integrin inhibitors because we can deploy DELSCAPE to assess the potency and selectivity of millions of candidate molecules in parallel. The resulting information relating biological activity to chemical structure can greatly accelerate the process of identifying highly selective candidate molecules for clinical development.

Our Solution: A Selective α4ß7 Integrin Antagonist

Leveraging DELSCAPE, we have identified selective oral small molecule antagonists of α4ß7 integrin that spare α4ß1 integrin. We believe that there is a substantial clinical need and commercial opportunity for an oral α4ß7 antagonist that can deliver the anti-inflammatory activity of ENTYVIO without the burden associated with injectable administration. An additional potential advantage of an oral α4ß7 agonist dosed daily is the ability to rapidly adjust dosing to maintain clinical efficacy in patients, a process that can take some time with an intravenous drug that is administered at eight-week intervals.

In an integrin-specific cell adhesion assay, DX-819511, one of our lead molecules, was shown to inhibit α4ß7 while sparing α4ß1, as shown in Figure 17 below. Specifically, DX-819511 had a potency of 2.2 nM against α4ß7 and 2,300 nM against α4ß1, a selectivity ratio of approximately 1,000-fold. We are continuing to optimize molecules related to DX-819511 for potency and physiochemical properties. We anticipate nominating a therapeutic candidate in this program by the end of 2023.

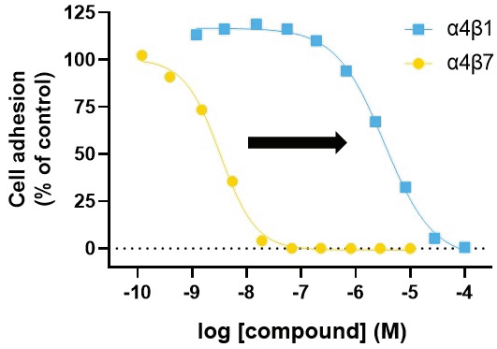
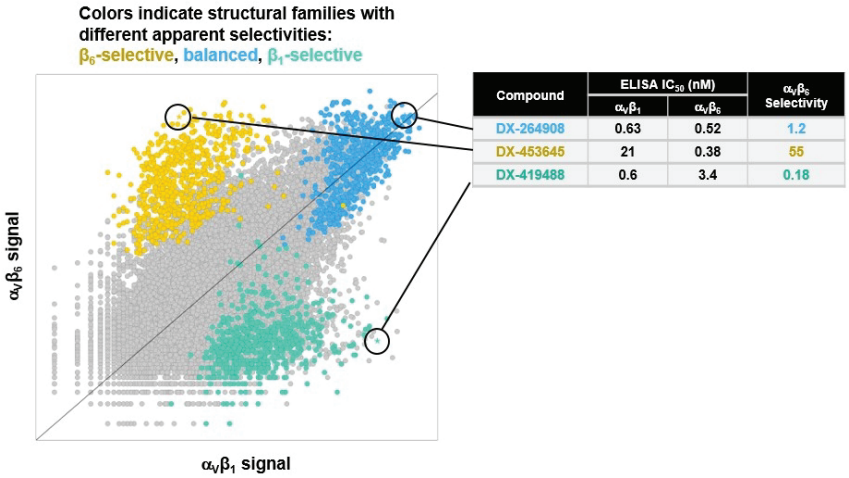


Figure 17: DX-819511 was approximately 1,000-fold more potent in inhibiting cell adhesion through α4ß7 integrin than α4ß1 integrin.

Our Alpha V Integrin Program

Alpha V ("αV") integrins have been implicated in a number of fibrotic diseases in tissues such as the lungs, liver and kidney. These integrins are heterodimers with the αV subunit paired with different beta subunits in different integrins. There are a number of drug candidates targeting αV integrins in clinical development and the safety and efficacy of various beta subunit selectivity profiles remain to be established.

Utilizing DELSCAPE, we have generated libraries containing millions of compounds that have αV antagonist activity. By profiling these compounds against various αV heterodimers, we have identified structural features that have led to the generation of compounds that have higher, equal, or lower potency between αVß1 and αVß6. In some cases, this selectivity is over 100-fold. Our DELs have enabled us to perform medicinal chemistry at a scale at least 1,000-fold the throughput of more traditional synthetic approaches, allowing us to rapidly generate and assess chemical variants, as shown in the figure below.



Compound	ELISA IC_{50} (nM)		$\alpha_V\beta_6$ Selectivity
	$\alpha_V\beta_1$	$\alpha_V\beta_6$	
DX-264908	0.63	0.52	1.2
DX-453645	21	0.38	55
DX-419488	0.6	3.4	0.18

Figure 18: DELSCAPE led to the identification of chemical structural features that drive selectivity between αVß1 and αVß6.

We will continue to monitor the evolving αV integrin clinical landscape for additional target validation prior to committing further resources toward advancing the αV integrin antagonist program.

Our Programmed Death-Ligand 1 ("PD-L1") Program

We previously partnered with Sanofi to apply our DELSCAPE platform outside of our core immunology focus. This partnered program was a small molecule against PD-L1, an immuno-oncology target that has been clinically and commercially validated with antibody therapeutics. Through our collaboration with Sanofi, we were able to identify small molecules that disrupt this immuno-oncology target in a manner mechanistically similar to the approach taken in our IL-17 and integrin programs. Although the antibodies directed to this target have been successful, there are two areas where we believe that a small molecule solution could have advantages over a biologic. First, a small molecule may have better tissue and membrane penetration than an antibody, with the potential to deliver increased clinical benefit in solid tumors, and potentially in brain tumors. Second, small molecule drugs, in general, have shorter half-lives than antibody therapeutics. In cases where treatment leads to the development of adverse events, the discontinuation of dosing of a small molecule could lead to elimination of a drug from the body within hours and potentially result in more rapid alleviation of an adverse event than an antibody therapeutic, which could remain active for weeks. In March 2022, Sanofi notified the Company that it no longer intended to develop therapeutic candidates under the partnered program. Due to this program being outside of our core immunology focus, we intend to re-partner this program.

Discovery Programs

Our approach to drug discovery and development leverages the capabilities of DELSCAPE to determine feasibility, optimize the design of and generate families of specific and potentially potent therapeutic compounds that we consider ideal for advancement to clinical development. We combine this approach with an assessment of attractive, validated market opportunities, informed by our expertise in the field of immunology, to determine our priority targets. This differentiated approach to discovery underpins the demonstrated power of DELSCAPE to generate potential clinical candidates against conventionally difficult-to-drug PPI targets and we believe significantly expands the number of biologic targets that can be modulated with oral small molecules. We are continuing to invest in our computational chemistry capabilities to accelerate our library design and data analysis as we identify and interrogate new targets using DELSCAPE. We have identified additional targets relevant and validated in immunology, such as FcRn, TSLP, TNFα and IL-23, among others, that meet our target selection criteria, and we expect to identify additional targets in the future. We plan to dedicate a portion of our drug

discovery efforts toward at least one of these promising targets with the goal of expanding our portfolio of immunology therapeutic candidates.

Competition

The biotechnology and pharmaceutical industries are characterized by rapid evolution of technologies, fierce competition and strong defense of intellectual property. While we believe that DELSCAPE and our knowledge, experience and scientific resources provide us with competitive advantages, we face competition from well-established pharmaceutical and molecule biotechnology companies, specialty pharmaceutical and biotechnology companies, academic institutions, governmental agencies and public and private research institutions, among others.

Although we believe that DELSCAPE and our lead therapeutic candidate address different therapeutic needs, any therapeutic candidates that we successfully develop and commercialize in the future, will compete with currently approved therapies or new therapies that may become available in the future. Key product features that would affect our ability to effectively compete with other therapeutics include the efficacy, safety and convenience of and pricing, levels of promotional activity and reimbursement levels for our therapeutics.

We are advancing our lead program, DC-806, an antagonist of IL-17 being developed initially for the treatment of psoriasis, with the objective of achieving therapeutic benefit similar to that of the injectable biologics. There are currently three approved antibody therapeutics targeting the IL-17 pathway: COSENTYX, marketed by Novartis; TALTZ, marketed by Eli Lilly; and SILIQ, marketed by Bausch Health. UCB SA is also developing an anti-IL-17 mAb, bimekizumab, and has submitted an NDA to the FDA for its use in psoriasis. Other classes of injectable biologics approved for use in indications for which IL-17 therapeutics are also approved include anti-IL-12/23 and anti TNFα mAbs, marketed by Abbvie, Sun Pharmaceutical Industries and Janssen Pharmaceuticals, among others. Furthermore, the oral PDE4 inhibitor, OTEZLA, marketed by Amgen, and oral TYK2 inhibitor, SOTYKTU, marketed by Bristol Myers Squibb, are approved for the treatment of psoriasis. In addition, we are aware of other oral therapeutic candidates including TYK2 inhibitors, oral IL-17 inhibitors, and oral IL-23 inhibitors being developed by Janssen Pharmaceuticals, Takeda Pharmaceutical Company, Ventyx Biosciences, and LEO Pharma, among others.

We are also developing oral therapeutics targeting α4ß7 integrin and αVß1/αVß6 integrin for the treatment of IBD and IPF, respectively. Approved integrin antagonists include TYSABRI marketed by Biogen for the treatment of CD and MS and ENTYVIO marketed by Takeda for the treatment of UC and CD. In addition, we are aware of IBD treatments either approved or in development by Abbvie, Bristol-Myers Squibb, Janssen Pharmaceuticals, Arena Pharmaceuticals and Morphic Therapeutic, among others, and IPF treatments either approved or in development by Boehringer Ingelheim, Roche and Abbvie, among others. Many of our competitors have significantly greater financial resources and expertise than we do in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies that might be complementary to, or necessary for, our current or future programs.

Manufacturing

Currently, all of our preclinical and clinical drug manufacturing, storage, distribution or quality testing are outsourced to third-party manufacturers. As our development programs progress and we build new process efficiencies, we expect to continually evaluate this strategy with the objective of satisfying demand for registration trials and, if approved, the manufacture, sale and distribution of commercial products.

Human Capital

Employees

As of December 31, 2022, we had 71 full-time employees, approximately 72% of whom are primarily engaged in research and development activities. Of these full-time employees, 28 have an M.D. and/or a Ph.D. None of our employees are represented by a labor union or party to a collective bargaining agreement. We consider our relationship with our employees to be good.

From time to time, we retain independent contractors to support our organization, and we continually evaluate our business needs and opportunities, striving to balance in-house expertise and capacity with outsourced expertise and capacity. Currently, we outsource all clinical trial work and all manufacturing work to clinical research organizations and to contract manufacturers, respectively.

Diversity & Inclusion

We are committed to creating and maintaining a workplace free from discrimination or harassment on the basis of color, race, sex, national origin, ethnicity, religion, age, disability, sexual orientation, gender identification or expression or any other status protected by applicable law. Our management team and employees are expected to exhibit and promote honest, ethical, and respectful conduct in the workplace. All of our employees must adhere to a code of conduct that sets standards for appropriate behavior and we have implemented specific policies designed to prevent, identify, report and stop any type of discrimination and harassment. Our recruitment, hiring, development, training, compensation and advancement at our company is based on qualifications, performance, skills and experience without regard to gender, race and ethnicity.

Competitive Pay & Benefits and Pay Equity

We strive to provide competitive and robust compensation and benefits programs that help meet the varying needs of our employees, and we are committed to pay equity, without regard for gender or race/ethnicity. Our benefits program includes a choice of medical plans, vision and dental coverage, flexible spending accounts for health and dependent day care needs, and income protection through life, short-term and long-term disability coverage, sick leave, paid family leave, and generous paid time off. Our employees enjoy flexible work schedules along with access to a partially subsidized cafeteria and access to a fitness center at no cost. In addition, we offer every full-time employee, both exempt and non-exempt, the benefit of equity ownership in the company through stock option grants. We offer a 401(k) plan and in 2022, we announced a company match for the 401(k) plan starting January 1, 2023.

Intellectual Property

Our success depends in part on our ability to obtain and maintain proprietary protection for our therapeutic candidates and other discoveries, inventions, trade secrets and know-how that are critical to our business operations. Our success also depends in part on our ability to operate without infringing the proprietary rights of others, and in part on our ability to prevent others from infringing our proprietary rights. A comprehensive discussion on risks relating to intellectual property is provided under the section titled “Risk Factors—Risks Related to Intellectual Property.”

For our IL-17 program, as of March 8, 2023, we own one issued U.S. patent, U.S. Patent No. 11, 274,094, covering our lead clinical candidate (DC-806) and follow-on development candidate (DC-853), which is expected to expire in 2040, not including any patent term adjustments and extensions that may be available. DiCE Alpha Inc. further owns several patent applications covering DC-806, both inside and outside the United States, including: one issued U.S. patent, four pending U.S. patent applications, one issued foreign patent, and seventeen pending foreign patent applications, any of which, if issued, are expected to expire in 2040, not including any patent term adjustments and extensions that may be available. DiCE Alpha Inc. further owns five pending U.S. provisional patent applications, two pending foreign patent applications, and two pending Patent Cooperation Treaty patent applications, which are expected to expire from 2042 to 2044, if issued from future non-provisional applications that we file, not including any patent term adjustments and extensions that may be available. We intend to strengthen the patent protection of our programs through additional patent application filings.

For our Alpha 4 Beta 7 program, as of March 8, 2023, we have two pending U.S. provisional patent applications, which are filed in the name of DiCE Molecules SV, Inc. These provisional applications are directed to compositions of matter and methods of inhibiting α4ß7 integrin. Any patents, issuing from patent applications in these families are projected to expire in 2043, notwithstanding any patent term adjustments and extensions that may be available.

For our Alpha V program, as of March 8, 2023, we have one pending Patent Cooperation Treaty patent application, which is filed in the name of DiCE Molecules SV, Inc. This Patent Cooperation Treaty application is directed to compositions of matter and methods of inhibiting αVß1 or αVß6 integrins. Any patents, issuing from

patent applications in these families are projected to expire in 2042, notwithstanding any patent term adjustments and extensions that may be available.

In addition to patent protection, we also rely on trade secrets, know-how, trademarks, other proprietary information and continuing technological innovation to develop and maintain our competitive position. We seek to protect and maintain the confidentiality of proprietary information to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection. Although we take steps to protect our proprietary information and trade secrets, including through contractual means with our employees and consultants, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology. Thus, we may not be able to meaningfully protect our trade secrets. It is our policy to require our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. However, such confidentiality agreements can be breached, and we may not have adequate remedies for any such breach. For more information regarding the risks related to our intellectual property, see the section titled "Risk Factors—Risks Related to Intellectual Property."

Government Regulation

Government authorities in the United States, at the federal, state and local level, and in other countries and jurisdictions extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, post-approval monitoring and reporting, and import and export of pharmaceutical products. The processes for obtaining regulatory approvals in the United States and in foreign countries and jurisdictions, along with subsequent compliance with applicable statutes and regulations and other regulatory authorities, require the expenditure of substantial time and financial resources.

FDA Approval Process

In the United States, pharmaceutical products are subject to extensive regulation by FDA. The Federal Food, Drug, and Cosmetic Act ("FD&C Act") and other federal and state statutes and regulations govern, among other things, the research, development, testing, manufacture, storage, recordkeeping, approval, labeling, promotion and marketing, distribution, post-approval monitoring and reporting, sampling and import and export of pharmaceutical products. Failure to comply with applicable U.S. requirements may subject a company to a variety of administrative or judicial sanctions, such as FDA refusal to approve pending NDAs, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties and criminal prosecution.

Pharmaceutical product development for a new product or certain changes to an approved product in the U.S. typically involves preclinical laboratory and animal tests, the submission to FDA of an IND, which must become effective before clinical testing may commence, and adequate and well-controlled clinical trials to establish the safety and effectiveness of the drug for each indication for which FDA approval is sought. Satisfaction of FDA pre-market approval requirements typically takes many years and the actual time required may vary substantially based upon the type, complexity and novelty of the product or disease.

Preclinical tests include laboratory evaluation of product chemistry, formulation and toxicity, as well as animal trials to assess the characteristics and potential safety and efficacy of the product. The conduct of the preclinical tests must comply with federal regulations and requirements, including good laboratory practices. The results of preclinical testing are submitted to FDA as part of an IND along with other information, including information about product chemistry, manufacturing and controls, and a proposed clinical trial protocol. Long-term preclinical tests, such as animal tests of reproductive toxicity and carcinogenicity, may continue after the IND is submitted. A 30-day waiting period after the submission of each IND is required prior to the commencement of clinical testing in humans. If FDA has neither commented on nor questioned the IND within this 30-day period, the clinical trial proposed in the IND may begin. Clinical trials involve the administration of the investigational new drug to healthy volunteers or patients under the supervision of a qualified investigator. Clinical trials must be conducted: (i) in compliance with federal regulations; (ii) in compliance with good clinical practice ("GCP") an international standard meant to protect the rights and health of patients and to define the roles of clinical trial sponsors, administrators and monitors; as well as (iii) under protocols detailing the objectives of the trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. Each protocol involving testing on U.S. patients and subsequent protocol amendments must be submitted to FDA as part of the IND.

FDA may order the temporary, or permanent, discontinuation of a clinical trial at any time, or impose other sanctions, if it believes that the clinical trial either is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial patients. The study protocol and informed consent information for patients in clinical trials must also be submitted to an institutional review board ("IRB") and ethics committee for approval. An IRB may also require the clinical trial at the site to be halted, either temporarily or permanently, for failure to comply with the IRB's requirements, or may impose other conditions.

Clinical trials to support NDAs for marketing approval are typically conducted in three sequential phases, but the phases may overlap. In Phase 1, the initial introduction of the drug into healthy human subjects or patients, the drug is tested to assess metabolism, pharmacokinetics, pharmacological actions, side effects associated with increasing doses, and, if possible, early evidence of effectiveness. Phase 2 usually involves trials in a limited patient population to determine the effectiveness of the drug for a particular indication, dosage tolerance and optimum dosage, and to identify common adverse effects and safety risks. If a drug demonstrates evidence of effectiveness and an acceptable safety profile in Phase 2 evaluations, Phase 3 trials are undertaken to obtain the additional information about clinical efficacy and safety in a larger number of patients, typically at geographically dispersed clinical trial sites, to permit FDA to evaluate the overall benefit-risk relationship of the drug and to provide adequate information for the labeling of the drug. In most cases FDA requires two adequate and well-controlled Phase 3 clinical trials to demonstrate the efficacy of the drug. A single Phase 3 trial may be sufficient in rare instances, including: (i) where the study is a large multicenter trial demonstrating internal consistency and a statistically very persuasive finding of a clinically meaningful effect on mortality, irreversible morbidity or prevention of a disease with a potentially serious outcome and confirmation of the result in a second trial would be practically or ethically impossible; or (ii) when in conjunction with other confirmatory evidence.

The manufacturer of an investigational drug in a Phase 2 or 3 clinical trial for a serious or life-threatening disease is required to make available, such as by posting on its website, its policy on evaluating and responding to requests for expanded access.

After completion of the required clinical testing, an NDA is prepared and submitted to FDA. FDA approval of the NDA is required before marketing of the product may begin in the U.S. The NDA must include the results of all preclinical, clinical and other testing and a compilation of data relating to the product's pharmacology, chemistry, manufacture and controls. The cost of preparing and submitting an NDA is substantial. The submission of most NDAs is additionally subject to a substantial application user fee, and the applicant under an approved NDA is also subject to an annual program fee for each prescription product. These fees are typically increased annually.

FDA has 60 days from its receipt of an NDA to determine whether the application will be filed based on the agency's threshold determination that it is sufficiently complete to permit substantive review. Once the submission is filed, FDA begins an in-depth review. FDA has agreed to certain performance goals in the review of NDAs to encourage timeliness. Most applications for standard review drug products are reviewed within ten to twelve months of the date of submission of the NDA to FDA; most applications for priority review drugs are reviewed in six to eight months of the date of submission of the NDA to FDA. Priority review can be applied to drugs that FDA determines offer major advances in treatment or provide a treatment where no adequate therapy exists. The review process for both standard and priority review may be extended by FDA for three additional months to consider certain late-submitted information, or information intended to clarify information already provided in the submission.

FDA may also refer applications for novel drug products, or drug products that present difficult questions of safety or efficacy, to an outside advisory committee—typically a panel that includes clinicians and other experts—for review, evaluation and a recommendation as to whether the application should be approved. FDA is not bound by the recommendation of an advisory committee, but it generally follows such recommendations.

Before approving an NDA, FDA will typically inspect one or more clinical sites to assure compliance with GCP. Additionally, FDA will inspect the facility or the facilities at which the drug is manufactured. FDA will not approve the product unless compliance with current good manufacturing practices ("cGMPs") is satisfactory and the NDA contains data that provide substantial evidence that the drug is safe and effective in the indication studied.

After FDA evaluates the NDA and the manufacturing facilities, it issues either an approval letter or a complete response letter. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing, or information, in order for FDA to reconsider the application. If, or when, those

deficiencies have been addressed to FDA's satisfaction in a resubmission of the NDA, FDA will issue an approval letter. FDA has committed to reviewing such resubmissions in two or six months depending on the type of information included. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. As a condition of NDA approval, FDA may require a risk evaluation and mitigation strategy ("REMS"), to help ensure that the benefits of the drug outweigh the potential risks. REMS can include medication guides, communication plans for healthcare professionals, and elements to assure safe use ("ETASU"). ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring and the use of patient registries. The requirement for a REMS can materially affect the potential market and profitability of the drug. Moreover, product approval may require substantial post-approval testing and surveillance to monitor the drug's safety or efficacy. Once granted, product approvals may be withdrawn if compliance with regulatory standards is not maintained or problems are identified following initial marketing.

Changes to some of the conditions established in an approved application, including changes in indications, labeling, or manufacturing processes or facilities, require submission and FDA approval of a new NDA or NDA supplement before the change can be implemented. An NDA supplement for a new indication typically requires clinical data similar to that in the original application, and FDA uses the same procedures and actions in reviewing NDA supplements as it does in reviewing NDAs.

Disclosure of Clinical Trial Information

Sponsors of clinical trials of FDA regulated products, including drugs, are required to register and disclose certain clinical trial information. Information related to the product, patient population, phase of investigation, study 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 in certain circumstances for up to two years after the date of completion of the trial. Competitors may use this publicly available information to gain knowledge regarding the progress of development programs.

Pediatric Information

Under the Pediatric Research Equity Act ("PREA"), NDAs or supplements to NDAs must contain data to assess the safety and effectiveness of the drug for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the drug is safe and effective. FDA may grant full or partial waivers, or deferrals, for submission of data. With certain exceptions, PREA does not apply to any drug for an indication for which orphan designation has been granted.

The Best Pharmaceuticals for Children Act ("BPCA") provides NDA holders a six-month extension of any exclusivity—patent or nonpatent—for a drug if certain conditions are met. Conditions for exclusivity include FDA's determination that information relating to the use of a new drug in the pediatric population may produce health benefits in that population, FDA making a written request for pediatric studies, and the applicant agreeing to perform, and reporting on, the requested studies within the statutory timeframe. Applications under the BPCA are treated as priority applications, with all of the benefits that designation confers.

Post-Approval Requirements

Once an NDA is approved, a product will be subject to certain post-approval requirements. For instance, FDA closely regulates the post-approval marketing and promotion of drugs, including standards and regulations for direct-to-consumer advertising, off-label promotion, industry-sponsored scientific and educational activities and promotional activities involving the internet. Drugs may be marketed only for the approved indications and in accordance with the provisions of the approved labeling.

Adverse event reporting and submission of periodic reports are required following FDA approval of an NDA. FDA also may require post-marketing testing, known as Phase 4 testing, REMS and surveillance to monitor the effects of an approved product, or FDA may place conditions on an approval that could restrict the distribution or use of the product. In addition, quality control, drug manufacture, packaging and labeling procedures must continue to conform to cGMPs after approval. Drug manufacturers and certain of their subcontractors are required to register their establishments with FDA and certain state agencies. Registration with FDA subjects entities to periodic unannounced inspections by FDA, during which the Agency inspects manufacturing facilities to assess compliance with cGMPs. Accordingly, manufacturers must continue to expend time, money and effort in the areas of production

and quality-control to maintain compliance with cGMPs. Regulatory authorities may withdraw product approvals or request product recalls if a company fails to comply with regulatory standards, if it encounters problems following initial marketing, or if previously unrecognized problems are subsequently discovered.

The Hatch-Waxman Act

Orange Book Listing

In seeking approval for a drug through an NDA, applicants are required to list with the FDA each patent whose claims cover the applicant's product. Upon approval of a drug, each of the patents listed in the application for the drug is then published in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, commonly known as the Orange Book. Drugs listed in the Orange Book can, in turn, be cited by potential generic competitors in support of approval of an abbreviated new drug application ("ANDA"). An ANDA provides for marketing of a drug product that has the same active ingredients in the same strengths and dosage form as the listed drug and has been shown through bioequivalence testing to be therapeutically equivalent to the listed drug. Other than the requirement for bioequivalence testing, ANDA applicants are not required to conduct, or submit results of, preclinical or clinical tests to prove the safety or effectiveness of their drug product. Drugs approved in this way are commonly referred to as "generic equivalents" to the listed drug and can often be substituted by pharmacists under prescriptions written for the original listed drug pursuant to each state's laws on drug substitution.

The ANDA applicant is required to certify to the FDA concerning any patents listed for the approved product in the FDA's Orange Book. Specifically, the applicant must certify that (i) the required patent information has not been filed; (ii) the listed patent has expired; (iii) the listed patent has not expired but will expire on a particular date and approval is sought after patent expiration; or (iv) the listed patent is invalid or will not be infringed by the new product. The ANDA applicant may also elect to submit a section viii statement certifying that its proposed ANDA label does not contain (or carve out) any language regarding the patented method-of-use rather than certify to a listed method-of-use patent. If the applicant does not challenge the listed patents, the ANDA application will not be approved until all the listed patents claiming the referenced product have expired. A certification that the new product will not infringe the already approved product's listed patents, or that such patents are invalid, is called a Paragraph IV certification. If the ANDA applicant has provided a Paragraph IV certification to the FDA, the applicant must also send notice of the Paragraph IV certification to the NDA and patent holders once the ANDA has been accepted for filing by the FDA. The NDA and patent holders may then initiate a patent infringement lawsuit in response to the notice of the Paragraph IV certification. The filing of a patent infringement lawsuit within 45 days of the receipt of a Paragraph IV certification automatically prevents the FDA from approving the ANDA until the earlier of 30 months, expiration of the patent, settlement of the lawsuit, or a decision in the infringement case that is favorable to the ANDA applicant.

The ANDA application also will not be approved until any applicable non-patent exclusivity listed in the Orange Book for the referenced product has expired.

Exclusivity

Upon NDA approval of a new chemical entity ("NCE"), which is a drug that contains no active moiety that has been approved by FDA in any other NDA, that drug receives five years of marketing exclusivity during which FDA cannot receive any ANDA seeking approval of a generic version of that drug. An ANDA may be submitted one year before NCE exclusivity expires if a Paragraph IV certification is filed. If there is no listed patent in the Orange Book, there may not be a Paragraph IV certification, and, thus, no ANDA may be filed before the expiration of the exclusivity period. Certain changes to a drug, such as the addition of a new indication to the package insert, can be the subject of a three-year period of exclusivity if the application contains reports of new clinical investigations (other than bioavailability studies) conducted or sponsored by the sponsor that were essential to the approval of the application. FDA cannot approve an ANDA for a generic drug that includes the change during the exclusivity period.

Patent Term Extension

After NDA approval, owners of relevant drug patents may apply for up to a five-year patent extension. The allowable patent term extension is calculated as half of the drug's testing phase (the time between IND application and NDA submission) and all of the review phase (the time between NDA submission and approval up to a maximum of five years). The time can be shortened if FDA determines that the applicant did not pursue approval with due diligence. The total patent term after the extension may not exceed 14 years, and only one patent can be

extended. For patents that might expire during the application phase, the patent owner may request an interim patent extension. An interim patent extension increases the patent term by one year and may be renewed up to four times. For each interim patent extension granted, the post-approval patent extension is reduced by one year. The director of the United States Patent and Trademark Office must determine that approval of the drug covered by the patent for which a patent extension is being sought is likely. Interim patent extensions are not available for a drug for which an NDA has not been submitted.

Other Healthcare Laws

In addition to FDA restrictions on marketing of pharmaceutical products, several other types of state and federal laws have been applied to restrict certain general business and marketing practices in the pharmaceutical industry. These laws include anti-kickback, false claims, transparency and health information privacy laws and other healthcare laws and regulations.

The federal Anti-Kickback Statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce, or in return for, purchasing, leasing, ordering or arranging for the purchase, lease or order of any healthcare item or service reimbursable under Medicare, Medicaid, or other federally financed healthcare programs. The Patient Protection and Affordable Care Act as amended by the Health Care and Education Reconciliation Act ("ACA") amended the intent element of the federal Anti-Kickback Statute so that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to commit a violation. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers, among others, on the other. Although there are a number of statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions, the exceptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exception or safe harbor. Additionally, the ACA amended the federal Anti-Kickback Statute such that a violation of that statute can serve as a basis for liability under the federal civil False Claims Act.

Federal civil and criminal false claims laws, including the federal civil False Claims Act, prohibit any person or entity from knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to have a false claim paid. This includes claims made to programs where the federal government reimburses, such as Medicare and Medicaid, as well as programs where the federal government is a direct purchaser, such as when it purchases off the Federal Supply Schedule. Pharmaceutical and other healthcare companies have been prosecuted under these laws for, among other things, allegedly inflating drug prices they report to pricing services, which in turn were used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. In addition, certain marketing practices, including off-label promotion, may also violate false claims laws. Most states also have statutes or regulations similar to the federal Anti-Kickback Statute and civil False Claims Act, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

Other federal statutes pertaining to healthcare fraud and abuse include the Civil Monetary Penalties Law statute, which prohibits, among other things, the offer or payment of remuneration to a Medicaid or Medicare beneficiary that the offeror or payor knows or should know is likely to influence the beneficiary to order or receive a reimbursable item or service from a particular supplier, and the additional federal criminal statutes created by the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), which prohibit, among other things, knowingly and willfully executing or attempting to execute a scheme to defraud any healthcare benefit program or obtain by means of false or fraudulent pretenses, representations or promises any money or property owned by or under the control of any healthcare benefit program in connection with the delivery of or payment for healthcare benefits, items or services.

In addition, HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 ("HITECH") and their respective implementing regulations, including the Final Omnibus Rule published on January 25, 2013, impose obligations on certain healthcare providers, health plans and healthcare clearinghouses, known as covered entities, as well as their business associates and their subcontractors that perform certain services involving the storage, use or disclosure of individually identifiable health information, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information, and require notification to affected individuals and regulatory authorities of certain breaches of

security of individually identifiable health information. HITECH increased the civil and criminal penalties that may be imposed against covered entities, business associates and possibly other persons, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney's fees and costs associated with pursuing federal civil actions. In addition, many state laws govern the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, and often are not pre-empted by HIPAA.

Further, pursuant to the ACA, the Centers for Medicare & Medicaid Services ("CMS") issued a final rule that requires certain manufacturers of prescription drugs to collect and annually report information on certain payments or transfers of value to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), physician assistants, certain types of advance practice nurses and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. The reported data is made available in searchable form on a public website on an annual basis. Failure to submit required information may result in civil monetary penalties.

Analogous state and foreign anti-kickback and false claims laws that may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non- governmental third-party payors, including private insurers, or that apply regardless of payor. In addition, several states now require prescription drug companies to report certain expenses relating to the marketing and promotion of drug products and to report gifts and payments to individual healthcare practitioners in these states. Other states prohibit various marketing-related activities, such as the provision of certain kinds of gifts or meals. Further, certain states require the posting of information relating to clinical studies and their outcomes. Some states require the reporting of certain drug pricing information, including information pertaining to and justifying price increases. In addition, certain states require pharmaceutical companies to implement compliance programs and/or marketing codes. Several additional states are considering similar proposals. Certain states and local jurisdictions also require the registration of pharmaceutical sales representatives. Additionally, we may also be subject to state and foreign laws governing the privacy and security of health information in some circumstances, such as California's CCPA or Europe's General Data Protection Regulation, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Efforts to ensure that business arrangements with third parties comply with applicable state, federal and foreign healthcare laws and regulations involve substantial costs. If a drug company's operations are found to be in violation of any such requirements, it may be subject to significant penalties, including civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, the curtailment or restructuring of its operations, loss of eligibility to obtain approvals from the FDA, exclusion from participation in government contracting, healthcare reimbursement or other federal or state government healthcare programs, including Medicare and Medicaid, integrity oversight and reporting obligations, imprisonment and reputational harm. Although effective compliance programs can mitigate the risk of investigation and prosecution for violations of these laws, these risks cannot be entirely eliminated. Any action for an alleged or suspected violation can cause a drug company to incur significant legal expenses and divert management's attention from the operation of the business, even if such action is successfully defended.

U.S. Healthcare Reform

In the United States there have been, and continue to be, proposals by the federal government, state governments, regulators and third-party payors to control or manage the increased costs of health care and, more generally, to reform the U.S. healthcare system. The pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives. For example, in March 2010, the ACA was enacted, which intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for the healthcare and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms, substantially changed the way healthcare is financed by both governmental and private insurers, and significantly impacts the U.S. pharmaceutical industry.

Recently, healthcare reform initiatives culminated in the enactment of the Inflation Reduction Act (the "IRA"), in August 2022, which will, among other things, allow U.S. Department of Health and Human Services ("HHS") to negotiate the selling price of certain drugs and biologics that CMS reimburses under Medicare Part B and Part D, although only high-expenditure single-source drugs that have been approved for at least 7 years (11 years for biologics) can be selected by CMS for negotiation, with the negotiated price taking effect two years after

the selection year. The negotiated prices, which will first become effective in 2026, will be capped at a statutory ceiling price. Beginning in January 2023 for Medicare Part B and October 2022 for Medicare Part D, the IRA will also penalize drug manufacturers that increase prices of Medicare Part B and Part D drugs at a rate greater than the rate of inflation. The IRA permits the Secretary of HHS to implement many of these provisions through guidance, as opposed to regulation, for the initial years. Manufacturers that fail to comply with the IRA may be subject to various penalties, including civil monetary penalties. The IRA also extends enhanced subsidies for individuals purchasing health insurance coverage in ACA marketplaces through plan year 2025. These provisions will take effect progressively starting in 2023, although they may be subject to legal challenges.

Third-Party Coverage and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any therapeutic candidates for which obtain regulatory approval. In the United States and markets in other countries, sales of any products for which we receive regulatory approval for commercial sale will depend, in part, on the extent to which third-party payors provide coverage, and establish adequate reimbursement levels for such drug products. In the United States, third-party payors include federal and state healthcare programs, government authorities, private managed care providers, private health insurers and other organizations.

There may be significant delays in obtaining reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the MHRA, FDA, EMA or similar foreign regulatory authorities. Interim reimbursement levels for new drugs, if applicable, may also be insufficient to cover our costs and may not be made permanent. Reimbursement rates may be based on payments allowed for lower cost drugs that are already reimbursed, may be incorporated into existing payments for other services and may reflect budgetary constraints or imperfections in Medicare data. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States.

Third-party payors are increasingly challenging the price, examining the medical necessity and reviewing the cost-effectiveness of medical drug products and medical services, in addition to questioning their safety and efficacy. Such payors may limit coverage to specific drug products on an approved list, also known as a formulary, which might not include all of the FDA-approved drugs for a particular indication. We may need to conduct expensive pharmaco-economic studies in order to demonstrate the medical necessity and cost-effectiveness of our products, in addition to the costs required to obtain the FDA approvals. Nonetheless, our therapeutic candidates may not be considered medically necessary or cost-effective. Moreover, the process for determining whether a third-party payor will provide coverage for a drug product may be separate from the process for setting the price of a drug product or for establishing the reimbursement rate that such a payor will pay for the drug product. A payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a drug product does not assure that other payors will also provide coverage for the drug product. As a result, obtaining coverage and reimbursement approval of a drug from a third-party payor is a time consuming and costly process that could require us to provide to each payor supporting scientific, clinical and cost effectiveness data for the use of our products on a payor-by-payor basis, with no assurance that coverage and adequate reimbursement will be obtained. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development.

The marketability of any therapeutic candidates for which we receive regulatory approval for commercial sale may suffer if the government and third-party payors fail to provide adequate coverage and reimbursement. In addition, emphasis on managed care in the United States has increased and we expect will continue to increase the pressure on pharmaceutical pricing. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Corporate Information and Trademarks

We were formed as corporation under the laws of the State of Delaware on August 14, 2013, under the name DiCE Molecules Corporation. In November 2014, we formed DiCE Molecules Holdings, LLC and completed a corporate reorganization pursuant to which DiCE Molecules Corporation was effectively succeeded by DiCE Molecules Holdings, LLC. In September 2021, DiCE Molecules Holdings, LLC converted into a Delaware

corporation and changed its name to DICE Therapeutics, Inc. Our principal executive offices are located at 400 East Jamie Court, Suite 300, South San Francisco, CA 94080, and our telephone number is (650) 566-1402.

We use various trademarks and trade names in our business, including, without limitation, our corporate name and logo. All other service marks, trademarks and trade names appearing in this Annual Report on Form 10-K are the property of their respective owners. Solely for convenience, the trademarks and tradenames referred to in this Annual Report on Form 10-K 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 the right of the applicable licensor to these trademarks and tradenames.

Additional Information

Our Internet website address is www.dicetherapeutics.com. On our website, we make available, free of charge, our annual, quarterly and current reports, including amendments to such reports, as soon as reasonably practicable after the company electronically files such material with, or furnishes such material to, the Securities and Exchange Commission ("SEC"). The SEC maintains a website at www.sec.gov that contains reports as well as other information regarding us and other companies that file materials with the SEC electronically.

Also available on our website is information relating to our corporate governance and our board of directors, including our corporate governance guidelines; our code of business conduct (for our directors, officers and employees); and our board committee charters. We will provide any of the foregoing information without charge upon written request to our Corporate Secretary, DICE Therapeutics, Inc., 400 East Jamie Court, Suite 300, South San Francisco, CA 94080.

We use our Investor Relations website (https://investors.dicetherapeutics.com) as a means of disclosing material non-public information and for complying with our disclosure obligations under Regulation Fair Disclosure promulgated by the SEC. These disclosures are included in the "News Releases" and "Events and Presentations" sections of our website. Accordingly, investors should monitor these portions of our website, in addition to following our press releases, SEC filings and public conference calls and webcasts.

The information contained on our website does not constitute, and shall not be deemed to constitute, a part of this Annual Report on Form 10-K, or any other report we file with, or furnish to, the SEC. Our references to the URLs for websites are intended to be inactive textual references only.

Item 1A. Risk Factors.

Investing in our common stock involves a high degree of risk. Before making your decision to invest in shares of our common stock, you should carefully consider the risks described below, together with the other information contained in this Annual Report on Form 10-K, including in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and in our consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K. We cannot assure you that any of the events discussed below will not occur. These events could have a material and adverse impact on our business, financial condition, results of operations and prospects. If that were to happen, the trading price of our common stock could decline, and you could lose all or part of your investment.

Risks Related to Our Financial Position and Need for Capital

We are a clinical stage biopharmaceutical company with a limited operating history and no therapeutics approved for commercial sale.

We are a clinical stage biopharmaceutical company with a limited operating history on which to base your investment decision. We have no therapeutics approved for commercial sale and have not generated any revenue from commercial therapeutic sales. Biopharmaceutical therapeutic development is a highly speculative undertaking because it entails substantial upfront capital expenditures and significant risk that any potential therapeutic candidate will fail to demonstrate adequate effect or an acceptable safety profile, gain regulatory approval or become commercially viable.

We have identified DC-806 as our lead therapeutic candidate for our IL-17 program, which is now in the clinical development stage. We will continue to incur significant research and development and other expenses related to our clinical development and ongoing operations. For the years ended December 31, 2022 and December 31, 2021, our net losses were approximately $83.9 million and $49.0 million, respectively. As of December 31, 2022, we had an accumulated deficit of approximately $187.6 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. We expect to incur significant losses for the foreseeable future, and we expect these losses to increase as we continue our research and development of our therapeutic candidates.

We anticipate that our expenses will increase substantially if, and as, we:

- conduct clinical trials for our lead therapeutic candidate, DC-806, fast follower therapeutic candidate, DC-853, and related compounds in the IL-17 program, and any future therapeutic candidates within the IL-17 program and other programs;
- discover and develop new therapeutic candidates, and conduct research and development activities, preclinical studies and clinical trials;
- manufacture, or have manufactured, preclinical, clinical and commercial supplies of our therapeutic candidates;
- seek regulatory approvals for our therapeutic candidates or any future therapeutic candidates;
- commercialize our current therapeutic candidates or any future therapeutic candidates, if approved;
- attempt to transition from a company with a research focus to a company capable of supporting commercial activities, including establishing sales, marketing and distribution infrastructure;
- attract, hire and retain qualified clinical, scientific and management personnel;
- add operational, financial and management information systems and personnel;
- identify additional compounds or therapeutic candidates and acquire rights from third parties to those compounds or therapeutic candidates through licenses; protect our rights in our intellectual property portfolio;
- are impacted by increasing wage inflation;
- defend against third-party interference or infringement claims, if any;

- address any competing therapies and technological and market developments;
- experience any delays in our preclinical or clinical studies and regulatory approval for our therapeutic candidates due to macroeconomic and global events, such as supply chain disruptions, pandemics, inflation, geopolitical conflict and other events; and
- incur additional costs associated with operating as a public company.

Even if we succeed in commercializing one or more therapeutic candidates, we may continue to incur substantial research and development and other expenditures to develop and market additional therapeutic candidates. We may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue. Our prior losses and expected future losses have had and will continue to have an adverse effect on our stockholders' equity and working capital.

We have never generated revenue from therapeutic sales and may never be profitable.

Our ability to become and remain profitable depends on our ability to generate revenue. We do not expect to generate significant revenue, if any, unless and until we, either alone or with a collaborator, are able to obtain regulatory approval for, and successfully commercialize, our lead therapeutic candidate, fast follower therapeutic candidate or any other therapeutic candidates we may develop. Successful commercialization will require achievement of many key milestones, including demonstrating safety and efficacy in clinical trials, obtaining regulatory, including marketing, approval for these therapeutic candidates, manufacturing, marketing and selling those therapeutics for which we, or any of our current or future collaborators, may obtain regulatory approval, satisfying any post-marketing requirements and obtaining reimbursement for our current or future therapeutics from private insurance or government payors. Because of the uncertainties and risks associated with these activities, we are unable to accurately and precisely predict the timing and amount of revenue, the extent of any further losses or if or when we might achieve profitability. We and any current or future collaborators may never succeed in these activities and, even if we do, or any collaborators do, we may never generate revenue that are large enough for us 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. Additionally, our expenses could increase if we are required by the U.S. Food and Drug Administration ("FDA"), the UK's Medicines and Healthcare products Regulatory Agency ("MHRA"), or any comparable foreign regulatory authority to perform clinical trials in addition to those currently expected, or if there are any delays in completing our clinical trials or the development of any of our current or future therapeutic candidates.

Our failure to become and remain profitable may depress the market price of our common stock and could impair our ability to raise capital, expand our business or continue our operations. If we continue to suffer losses as we have in the past, investors may not receive any return on their investment and may lose their entire investment.

We will require substantial additional funds to advance development of our current or future therapeutic candidates, which may not be available on acceptable terms, or at all. Failure to obtain this necessary capital when needed may force us to delay, limit or terminate our therapeutic development programs, commercialization efforts or other operations.

The development of biopharmaceutical therapeutic candidates, including conducting preclinical studies and clinical trials, is a very time-consuming, capital-intensive and uncertain process that takes years to complete. As our therapeutic candidates enter and advance through preclinical studies and clinical trials, we will need substantial additional funds to expand or create our development, regulatory, manufacturing, marketing and sales capabilities. We have used substantial funds to develop our technology and our therapeutic candidates and will require significant funds to conduct further research and development and preclinical testing and clinical trials of our therapeutic candidates, to seek regulatory approvals for our therapeutic candidates and to manufacture and market products, if any, which are approved for commercial sale. In addition, we expect to incur additional costs associated with operating as a public company.

Since our inception, we have invested a significant portion of our efforts and financial resources in research and development activities for our therapeutic candidates from the IL-17 program. Conducting preclinical studies and clinical trials for our therapeutic candidates will require substantial funds to complete. As of December 31, 2022, we had $574.2 million in cash, cash equivalents, and marketable securities. We expect to incur substantial expenditures in the foreseeable future as we seek to advance our lead therapeutic candidate and fast follower candidate from the

IL-17 program, and any future therapeutic candidates through preclinical and clinical development, the regulatory approval process and, if approved, commercial launch activities. Based on our current operating plan, we believe that our existing cash, cash equivalents, and marketable securities will be sufficient to fund our anticipated operating expenses and capital expenditure requirements through at least the next 12 months from the filing of this Annual Report on Form 10-K. However, our future capital requirements and the period for which we expect our existing resources to support our operations, fund expansion, develop new or enhanced therapeutics, or otherwise respond to competitive pressures, may vary significantly from what we expect and we may need to seek additional funds sooner than planned. Our monthly spending levels vary based on new and ongoing research and development and other corporate activities. Because the length of time and activities associated with successful research and development of our therapeutic candidates is highly uncertain, we are unable to estimate the actual funds we will require for development and any marketing and commercialization activities for approved therapeutics. Our future funding requirements, both near and long-term, will depend on many factors, including, but not limited to:

- the timing, cost and progress of preclinical and clinical development activities;
- the number and scope of preclinical and clinical programs we decide to pursue;
- the progress of the development efforts of parties with whom we have entered or may in the future enter into collaborations and/or research and development agreements;
- the timing and amount of milestone and other payments we may receive or make under our collaboration agreements;
- our ability to maintain our current licenses and research and development programs and to establish new collaboration arrangements;
- the costs involved in prosecuting and enforcing patent and other intellectual property claims;
- the costs of manufacturing our therapeutic candidates by third parties;
- the cost of regulatory submissions and timing of regulatory approvals;
- the cost of commercialization activities if our therapeutic candidates or any future therapeutic candidates are approved for sale, including marketing, sales and distribution costs;
- our efforts to enhance operational systems and hire additional personnel, including personnel to support development of our therapeutic candidates; and
- our need to implement additional internal systems and infrastructure, including financial and reporting systems to satisfy our obligations as a public company.

If we are unable to obtain funding on a timely basis or on acceptable terms, we may have to delay, reduce or terminate our research and development programs and preclinical studies or clinical trials, limit strategic opportunities or undergo reductions in our workforce or other corporate restructuring activities. We do not expect to realize revenue from sales of commercial therapeutics or royalties from licensed therapeutics in the foreseeable future, if at all, and, in no event, before our therapeutic candidates are clinically tested, approved for commercialization and successfully marketed. To date, we have primarily financed our operations through the issuance and sale of common stock, convertible preferred units and warrants, as well as payments received under our collaboration agreements.

We will be required to seek additional funding in the future and currently intend to do so through additional collaborations and/or licensing agreements, public or private equity offerings or debt financings, credit or loan facilities, or a combination of one or more of these funding sources. In addition, our Loan and Security Agreement, as amended by that certain Joinder and First Amendment to Loan and Security Agreement, with Silicon Valley Bank (as amended, the "SVB Loan and Security Agreement") contains restrictive covenants that would prevent us from, among other things, incurring additional indebtedness without SVB's consent. Such restrictive covenants include affirmative covenants requiring, among other things, that we maintain our legal existence and good standing and obtain all government approvals, deliver certain financial reports and maintain certain intellectual property rights. Such restrictive covenants also include certain negative covenants including, among other things, certain restrictions on asset dispositions, changing our business, engaging in mergers and acquisitions, paying dividends or making certain other distributions, and creating other liens on our assets. If we default under the SVB Loan and Security Agreement, SVB will be able to declare any obligations immediately due and payable and take control of our pledged assets, potentially requiring us to renegotiate our agreement on terms less favorable to us or to immediately

cease operations. Further, if we are liquidated, SVB's rights to repayment would be senior to the rights of the holders of our common units to receive any proceeds from the liquidation. SVB could declare a default under the Loan and Security Agreement upon the occurrence of any event that SVB interprets as a material adverse change as defined under the SVB Loan and Security Agreement, thereby requiring us to repay the loan immediately or to attempt to reverse the declaration of default through negotiation or litigation. Any declaration by SVB of an event of default could significantly harm our business and prospects and could cause the price of our common stock to decline. Additionally, the interest rate under the SVB Loan and Security Agreement fluctuates with the WSJ prime rate. While we currently have no debt outstanding under this agreement, should we incur indebtedness in the future under this agreement, rising interest rates would make the cost of such debt more expensive. With the closure of SVB and appointment of the FDIC as receiver on March 10, 2023, we are aware that there can be no assurance that this credit facility pursuant to the SVB Loan and Security Agreement will be available to us for borrowing. For additional details, see the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources." If we raise additional funds by issuing equity securities, our stockholders will suffer dilution and the terms of any financing may adversely affect the rights of our stockholders. In addition, as a condition to providing additional funds to us, future investors may demand, and may be granted, rights superior to those of existing stockholders. Our future debt financings, if available, are likely to involve restrictive covenants limiting our flexibility in conducting future business activities, and, in the event of insolvency, debt holders would be repaid before holders of our equity securities received any distribution of our corporate assets. If we raise additional funds through licensing or collaboration arrangements with third parties, we may have to relinquish valuable rights to our therapeutic candidates, or grant licenses on terms that are not favorable to us. We also could be required to seek collaborators for a therapeutic candidate at an earlier stage than otherwise would be desirable or relinquish our rights to therapeutic candidates or technologies that we otherwise would seek to develop or commercialize ourselves. Failure to obtain capital when needed on acceptable terms may force us to delay, limit or terminate our therapeutic development and commercialization of our current or future therapeutic candidates, which could have a material and adverse effect on our business, financial condition, results of operations and prospects.

We have incurred significant losses since our inception and we anticipate that we will continue to incur significant losses for the foreseeable future, which could harm our future business prospects.

We have historically incurred substantial net losses, including net losses of $83.9 million and $49.0 million for the years ended December 31, 2022 and 2021, respectively. As of December 31, 2022, we had an accumulated deficit of $187.6 million. We expect our losses to continue as we continue to devote a substantial portion of our resources to our research and development efforts. These losses have had, and will continue to have, an adverse effect on our working capital, total assets, and members deficit/stockholders' equity. Because of the numerous risks and uncertainties associated with our research and development, we are unable to predict when we will become profitable, and we may never become profitable. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our inability to achieve and then maintain profitability would negatively affect our business, financial condition, results of operations, and cash flows.

Risks Related to Discovery, Development and Commercialization

Our therapeutic candidates are in early stages of development and may fail in development or suffer delays that materially and adversely affect their commercial viability. If we or our collaborators are unable to complete development of, or commercialize our therapeutic candidates, or experience significant delays in doing so, our business will be materially harmed.

We have no therapeutics on the market and all of our therapeutic candidates are in early stages of development. Our Clinical Trial Application ("CTA"), with respect to DC-806, our lead therapeutic candidate from our IL-17 program, was approved by the MHRA in the UK in September 2021. We began dosing for our clinical Phase 1 trial in October 2021 and announced positive topline data in October 2022. Our investigational new drug ("IND") application was cleared by the FDA in March 2023 and is in effect for DC-806, and we expect to advance into a global Phase 2b clinical trial in the first half of 2023. Additionally, we have a portfolio of targets and programs that are in earlier stages of discovery or preclinical development and may never advance to clinical-stage development. Our ability to achieve and sustain profitability depends on obtaining regulatory approvals for, and successfully commercializing our therapeutic candidates, either alone or with third parties, and we cannot guarantee you that we will ever obtain regulatory approval for any of our therapeutic candidates. We have limited experience in conducting and managing the clinical trials necessary to obtain regulatory approvals including approval by the MHRA and the FDA. Before obtaining regulatory approval for the commercial distribution of our therapeutic candidates, we or an

existing or future collaborator must conduct extensive preclinical tests and clinical trials to demonstrate the safety and efficacy in humans of our therapeutic candidates.

We may not have the financial resources to continue development of, or to modify existing or enter into new collaborations for, a therapeutic candidate if we experience any issues that delay or prevent regulatory approval of, or our ability to commercialize, therapeutic candidates, including:

- preclinical study results may show the therapeutic candidate to be less effective than desired or to have harmful or problematic side effects;
- negative or inconclusive results from our clinical trials or the clinical trials of others for therapeutic candidates similar to ours, leading to a decision or requirement to conduct additional preclinical testing or clinical trials or abandon a program;
- product-related side effects experienced by patients in our clinical trials or by individuals using drugs or therapeutic biologics similar to our therapeutic candidates;
- our third-party manufacturers' inability to successfully manufacture our therapeutics;
- inability of any third-party contract manufacturer to scale up manufacturing of our therapeutic candidates and those of our collaborators to supply the needs of clinical trials or commercial sales;
- delays in submitting CTAs, Investigational New Drug applications ("INDs") or comparable foreign applications or delays or failures in obtaining the necessary approvals from regulators to commence a clinical trial, or a suspension or termination of a clinical trial once commenced;
- preclinical studies conducted outside of the United States may be affected by tariffs or import/export restrictions imposed by the United States or other governments;
- conditions imposed by the FDA, the MHRA or comparable foreign authorities regarding the scope or design of our clinical trials;
- delays in enrolling patients in our clinical trials;
- high drop-out rates of our clinical trial patients;
- inadequate supply or quality of therapeutic candidate components or materials or other supplies necessary for the conduct of our clinical trials;
- inability to obtain alternative sources of supply for which we have a single source for therapeutic candidate components or materials;
- greater than anticipated costs of our clinical trials;
- manufacturing costs, formulation issues, pricing or reimbursement issues, or other factors that no longer make a therapeutic candidate economically feasible;
- harmful side effects or inability of our therapeutic candidates to meet efficacy endpoints during clinical trials;
- failure to demonstrate a benefit-risk profile acceptable to the FDA, the MHRA or other regulatory agencies;
- unfavorable FDA, MHRA or other regulatory agency inspection and review of one or more clinical trial sites or manufacturing facilities used in the testing and manufacture of any of our therapeutic candidates;
- failure of our third-party contractors or investigators to comply with regulatory requirements or otherwise meet their contractual obligations in a timely manner, or at all;
- delays and changes in regulatory requirements, policy and guidelines, including the imposition of additional regulatory oversight around clinical testing generally or with respect to our technology in particular; or
- varying interpretations of our data by the FDA, the MHRA and similar foreign regulatory agencies.

We or our collaborators' inability to complete development of, or commercialize our therapeutic candidates, or significant delays in doing so due to one or more of these factors, could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Our business is heavily dependent on the success of our lead therapeutic candidate, DC-806, fast follower therapeutic candidate DC-853, and related compounds in our IL-17 program. Existing and future preclinical studies and clinical trials of our therapeutic candidates may not be successful, and if we are unable to commercialize our therapeutic candidates or experience significant delays in doing so, our business will be materially harmed.

We have invested a significant portion of our efforts and financial resources in the development of our lead therapeutic candidate, DC-806, fast follower therapeutic candidate DC-853, and related compounds in our IL-17 program. Our ability to generate commercial 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 lead therapeutic candidate. In September 2021, the MHRA approved our CTA for DC-806, our lead therapeutic candidate from our IL-17 program. In October 2021, we commenced our Phase 1 clinical trial, and in October 2022, we announced positive topline data. Our IND application was cleared by the FDA in March 2023 and is in effect for DC-806, and we expect to advance into a global Phase 2b clinical trial in the first half of 2023. We have not previously submitted a new drug application ("NDA") to the FDA, or any other similar regulatory approval filings to the MHRA or comparable foreign authorities, for therapeutic candidates, and we cannot be certain that our therapeutic candidates will be successful in clinical trials or receive regulatory approval. Further, our therapeutic candidates may not receive regulatory approval even if they are successful in clinical trials. In addition, regulatory authorities may not complete their review processes in a timely manner, or additional delays may result if an FDA Advisory Committee, the MHRA or other regulatory authority recommends non-approval or restrictions on approval. In addition, we may experience delays or rejections based upon additional government regulation from future legislation or administrative action, or changes in regulatory authority policy during the period of product development, clinical trials and the review process. Regulatory authorities also may approve a therapeutic candidate for more limited indications than requested or with labeling that includes warnings, contraindications or precautions with respect to conditions of use. Regulatory authorities may also require Risk Evaluation and Mitigation Strategies ("REMS") or the performance of costly post-marketing clinical trials. If we do not receive regulatory approvals for our therapeutic candidates, we may not be able to continue our operations. Even if we successfully obtain regulatory approvals to market our therapeutic candidates, our revenue will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval and have commercial rights. If the markets for patient subsets that we are targeting are not as significant as we estimate, we may not generate significant revenue from sales of such therapeutics, if approved.

We plan to seek regulatory approval to commercialize our therapeutic candidates in the UK, the United States, the European Union ("EU") and in other selected countries. In order to obtain separate regulatory approvals in other countries, we must comply with numerous and varying regulatory requirements of such countries regarding safety and efficacy. Other countries also have their own regulations governing, among other things, clinical trials and commercial sales, as well as pricing and distribution of our therapeutic candidates, and we may be required to expend significant resources to obtain regulatory approval, which may not be successful, and to comply with ongoing regulations in these jurisdictions.

The success of our lead therapeutic candidate, DC-806, fast follower therapeutic candidate DC-853, and related compounds in the IL-17 program, and our other therapeutic candidates will depend on many factors, including the following:

- successful completion of necessary preclinical studies to enable the initiation of clinical trials;
- successful enrollment of patients in, and the completion of, our clinical trials;
- receiving required regulatory authorizations for the development and approvals for the commercialization of our therapeutic candidates;
- establishing and maintaining arrangements with third-party manufacturers;
- obtaining and maintaining patent and trade secret protection and non-patent exclusivity for our therapeutic candidates and their components;
- enforcing and defending our intellectual property rights and claims;

- achieving desirable therapeutic properties for our therapeutic candidates' intended indications;
- launching commercial sales of our therapeutic candidates, if and when approved, whether alone or in collaboration with third parties;
- acceptance of our therapeutic candidates, if and when approved, by patients, the medical community and third-party payors;
- effectively competing with other therapies; and
- maintaining an acceptable safety profile of our therapeutic candidates through clinical trials and following regulatory approval.

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize our therapeutic candidates, which would materially harm our business.

If we do not achieve our projected development goals in the time frames we announce and expect, the commercialization of our therapeutics may be delayed and, as a result, our stock price may decline.

From time to time, we estimate the timing of the anticipated accomplishment of various scientific, clinical, regulatory and other therapeutic development goals, which we sometimes refer to as milestones. These milestones may include the commencement or completion of scientific studies and clinical trials and the submission of regulatory filings. From time to time, we may publicly announce the expected timing of some of these milestones. All of these milestones are and will be based on numerous assumptions. The actual timing of these milestones can vary dramatically compared to our estimates, in some cases for reasons beyond our control. If we do not meet these milestones as publicly announced, or at all, the commercialization of our therapeutics may be delayed or never achieved and, as a result, our stock price may decline.

Our approach to the discovery and development of our therapeutic treatments is based on novel technologies that are unproven and may not result in marketable therapeutics.

We are developing a pipeline of therapeutic candidates using our DELSCAPE platform. Historically, dozens of IL-17 small molecule candidates of other companies that entered late-stage clinical trials have failed to result in FDA, MHRA or the European Medicines Agency ("EMA") approved medicines. We are aware of certain companies currently exploring oral approaches to integrins. Certain development efforts and clinical results of these other companies have in the past, and may be in the future, mixed or unsuccessful, which could result in a negative perception of oral integrins and negatively impact the regulatory approval process of our therapeutic candidates, which would have a material and adverse effect on our business. We believe that therapeutic candidates identified with our platform may offer an optimized therapeutic approach by taking advantage of conformational targeting next-generation physics-based technologies augmented with machine learning and artificial intelligence, which allow us to design, iterate and optimize leads in our discovery process. However, the scientific research that forms the basis of our efforts to develop therapeutic candidates using our platform is ongoing and may not result in viable therapeutic candidates.

To date, we are conducting clinical testing of DC-806 but have not tested any of our other therapeutic candidates in any clinical studies. We may ultimately discover that our DELSCAPE platform and any therapeutic candidates resulting therefrom do not possess certain properties required for therapeutic effectiveness, including the ability to lock specific integrin conformations. Our therapeutic candidates may also be unable to remain stable in the human body for the period of time required for the drug to reach the target tissue or they may trigger immune responses that inhibit the ability of the therapeutic candidate to reach the target tissue or that cause adverse side effects in humans. We currently have only preclinical data regarding oral bioavailability of our therapeutic candidates. We may spend substantial funds attempting to introduce these properties and may never succeed in doing so. In addition, therapeutic candidates based on our platform may demonstrate different chemical and pharmacological properties in patients than they do in laboratory studies. Our platform and any therapeutic candidates resulting therefrom may not demonstrate the same chemical and pharmacological properties in humans and may interact with human biological systems in unforeseen, ineffective or harmful ways.

The regulatory approval process for novel therapeutic candidates such as ours can be more expensive and take longer than for other, better known or extensively studied therapeutic candidates. To our knowledge, no regulatory authority has granted approval for an oral small-molecule integrin inhibitor. We believe the FDA and the MHRA have limited experience with oral integrin-based therapeutics, which may increase the complexity, uncertainty and

length of the regulatory approval process for our therapeutic candidates. We and our existing or future collaborators may never receive approval to market and commercialize any therapeutic candidate. Even if we or an existing or future collaborator obtains regulatory approval, the approval may be for targets, disease indications or patient populations that are not as broad as we intended or desired or may require labeling that includes significant use or distribution restrictions or safety warnings. We or an existing or future collaborator may be required to perform additional or unanticipated clinical trials to obtain approval or be subject to post-marketing testing requirements to maintain regulatory approval. If the therapeutics resulting from our DELSCAPE platform and research programs prove to be ineffective, unsafe or commercially unviable, our platform and pipeline would have little, if any, value, which would have a material and adverse effect on our business, financial condition, results of operations and prospects.

Preclinical and clinical development involve a lengthy and expensive process, with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results. We may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our current therapeutic candidates or any future therapeutic candidates.

We have not begun our Phase 2 clinical trial for our lead therapeutic candidate, DC-806, and all of our other therapeutic candidates are in preclinical development and their risk of failure is high. It is impossible to predict when or if any of our therapeutic candidates, including DC-806, will receive regulatory approval. To obtain the requisite regulatory approvals to commercialize any therapeutic candidates, we must demonstrate through extensive preclinical studies and lengthy, complex and expensive clinical trials that our therapeutic candidates are safe and effective in humans. Clinical testing can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. The results of preclinical studies and early clinical trials of our therapeutic candidates may not be predictive of the results of later-stage clinical trials. We may be unable to establish clinical endpoints that applicable regulatory authorities would consider clinically meaningful, and a clinical trial can fail at any stage of testing. Differences in trial design between early-stage clinical trials and later-stage clinical trials make it difficult to extrapolate the results of earlier clinical trials to later clinical trials. Moreover, clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their therapeutic candidates performed satisfactorily in clinical trials have nonetheless failed to obtain marketing approval of their therapeutics. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or to unfavorable safety profiles, notwithstanding promising results in earlier trials. There is typically a high rate of failure of therapeutic candidates proceeding through clinical trials. Most therapeutic candidates that commence clinical trials are never approved as therapeutics and there can be no assurance that any of our current or future clinical trials will ultimately be successful or support clinical development of our current or any of our future therapeutic candidates.

Our lead program targets the IL-17 pathway. Our IND application was cleared by the FDA in March 2023 and is in effect for DC-806. We intend to advance DC-806 into a global Phase 2b clinical trial in the first half of 2023 and to advance related compounds in the IL-17 program toward CTA submissions in the future. Commencing our future clinical trials is subject to finalizing the trial design and submitting a CTA to the MHRA or a similar submission to the FDA or a similar foreign regulatory authority. Even after we submit our CTA or comparable submissions in other jurisdictions, the MHRA, the FDA or other regulatory authorities could disagree that we have satisfied their requirements to commence our clinical trials or disagree with our study design, which may require us to complete additional preclinical studies or amend our protocols or impose stricter conditions on the commencement of clinical trials.

We or our collaborators may experience delays in initiating or completing clinical trials. We or our collaborators also may experience numerous unforeseen events during, or as a result of, any current or future clinical trials that we could conduct that could delay or prevent our ability to receive marketing approval or commercialize our lead therapeutic candidate, DC-806, fast follower therapeutic candidate, DC-853, and related compounds in the IL-17 program or any future therapeutic candidates, including:

- regulators such as the MHRA or the FDA or institutional review boards (“IRBs”), or ethics committees may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- we may experience delays in reaching, or fail to reach, agreement on acceptable terms with prospective trial sites and prospective contract research organizations (“CROs”) the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;

- clinical trial sites deviating from trial protocol or dropping out of a trial;
- clinical trials of any therapeutic candidates may fail to show safety or efficacy, produce negative or inconclusive results and we may decide, or regulators may require us, to conduct additional preclinical studies or clinical trials or we may decide to abandon product development programs;
- the number of subjects required for clinical trials of any therapeutic candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or subjects may drop out of these clinical trials or fail to return for post-treatment follow-up at a higher rate than we anticipate;
- our third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all, or may deviate from the clinical trial protocol or drop out of the trial, which may require that we add new clinical trial sites or investigators;
- we may elect to, or regulators, IRBs or ethics committees may require that we or our investigators, suspend or terminate clinical research or trials for various reasons, including noncompliance with regulatory requirements or a finding that the participants in our trials are being exposed to unacceptable health risks;
- the cost of clinical trials of any of our therapeutic candidates may be greater than we anticipate;
- the quality of our therapeutic candidates or other materials necessary to conduct clinical trials of our therapeutic candidates may be inadequate to initiate or complete a given clinical trial;
- our inability to manufacture sufficient quantities of our therapeutic candidates for use in clinical trials;
- reports from clinical testing of other therapies may raise safety or efficacy concerns about our therapeutic candidates;
- our failure to establish an appropriate safety profile for a therapeutic candidate based on clinical or preclinical data for such therapeutic candidate as well as data emerging from other molecules in the same class as our therapeutic candidate; and
- the MHRA, FDA, EMA or other regulatory authorities may require us to submit additional data such as long-term toxicology studies, or impose other requirements before permitting us to initiate a clinical trial.

Patient enrollment, a significant factor in the timing of clinical trials, is affected by many factors including the size and nature of the patient population, the number and location of clinical sites we enroll, the proximity of patients to clinical sites, the eligibility and exclusion criteria for the trial, the design of the clinical trial, the inability to obtain and maintain patient consents, the risk that enrolled participants will drop out before completion, competing clinical trials and clinicians' and patients' perceptions as to the potential advantages of the therapeutic candidate being studied in relation to other available therapies, including any new drugs or therapeutic biologics that may be approved for the indications being investigated by us. Furthermore, we expect to rely on our collaborators, CROs and clinical trial sites to ensure the proper and timely conduct of our current and future clinical trials, including the patient enrollment process, and we have limited influence over their performance. Additionally, we could encounter delays if treating clinicians encounter unresolved ethical issues associated with enrolling patients in current or future clinical trials of our therapeutic candidates in lieu of prescribing existing treatments that have established safety and efficacy profiles.

We could also encounter delays if a clinical trial is suspended, put on clinical hold or terminated by us, the IRBs of the institutions in which such trials are being conducted, or the MHRA, FDA, EMA or other regulatory authorities, or if a clinical trial is recommended for suspension or termination by the Data Safety Monitoring Board, or the DSMB, for such trial. A suspension or termination may be imposed 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 MHRA, FDA, EMA or other 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 product or treatment, failure to establish or achieve clinically meaningful trial endpoints, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. Clinical studies may also be delayed or terminated as a result of ambiguous or negative interim results. Many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our therapeutic candidates. Further, the MHRA, FDA, EMA or other regulatory authorities may disagree with our clinical trial design and our interpretation of data from clinical trials, or may

change the requirements for approval even after they have reviewed and commented on the design for our clinical trials.

Our therapeutic development costs will increase if we experience delays in clinical testing or marketing approvals. We do not know whether any of our clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Significant clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our therapeutic candidates and may allow our competitors to bring products to market before we do, potentially impairing our ability to successfully commercialize our therapeutic candidates and harming our business and results of operations. Any delays in our clinical development programs may harm our business, financial condition and results of operations significantly.

The COVID-19 pandemic could adversely impact our business, including our ongoing and anticipated future clinical trials, supply chain and business development activities.

As the COVID-19 pandemic continues around the globe, and if new COVID-19 variants emerge, we may experience disruptions that could severely impact our business and clinical trials, including but not limited to:

- interruption or delays in our operations and/or our external vendor operations, which may impact our ability to conduct and produce preclinical results required for submission of a CTA or IND;
- delays in receiving approval from local regulatory authorities, ethics committees, and/or IRBs to initiate our planned clinical trials;
- delays or difficulties in enrolling patients in our clinical trials;
- delays or difficulties in clinical site initiation, including difficulties in recruiting clinical site investigators and clinical site staff;
- delays in clinical sites receiving the supplies and materials needed to conduct our clinical trials, including interruption in global shipping that may affect the transport of clinical trial materials;
- changes in local regulations as part of a response to the COVID-19 pandemic or other epidemic diseases which may require us to change the ways in which our planned clinical trials are conducted, which may result in unexpected costs, or to discontinue the clinical trials altogether;
- diversion of healthcare resources away from the conduct of clinical trials, including the diversion of hospitals serving as our clinical trial sites and hospital staff supporting the conduct of our clinical trials;
- interruption of key clinical trial activities, such as but not limited to clinical trial site monitoring, due to limitations on travel imposed or recommended by federal or state governments, employers and others, or interruption of clinical trial subject visits and study procedures, the occurrence of which could affect the integrity of clinical trial data;
- interruption or delays in the operations of the MHRA, FDA, EMA or other regulatory authorities, which may impact review and approval timelines;
- risk that participants enrolled in our clinical trials will acquire 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;
- disruptions in supply of key reagents which we rely upon for our therapeutic candidates, the absence of which may delay our clinical trials; and
- refusal of the FDA to accept data from clinical trials in affected geographies.

These and other disruptions in our operations and the global economy could negatively impact our business, operating results and financial condition.

The spread of COVID-19 and its variants and actions taken to reduce its spread may also materially affect us economically. While the potential economic impact brought by, and the duration of, the COVID-19 pandemic may be difficult to assess or predict, there could be a significant disruption of global financial markets, reducing our ability to access capital, which could in the future negatively affect our liquidity and financial position. In addition, the trading prices for other biopharmaceutical companies have been highly volatile as a result of the COVID-19

pandemic. As a result, we may face difficulties raising capital through sales of our common stock or such sales may be on unfavorable terms.

COVID-19 and actions taken to reduce its spread continue to rapidly evolve. The extent to which COVID-19 may impede the development of our therapeutic candidates, reduce the productivity of our employees, disrupt our supply chains, delay our clinical trials, reduce our access to capital or limit our business development activities, will depend on future developments, which are highly uncertain and cannot be predicted with confidence. To the extent the COVID-19 pandemic or other epidemic diseases adversely affects our business and financial results, it may also have the effect of heightening many of the other risks described in this "Risk Factors" section.

Results of preclinical studies and early clinical trials on any of our therapeutic candidates may not be predictive of results of future clinical trials.

The outcome of preclinical studies and early clinical trials may not be predictive of the success of later clinical trials, and interim results of clinical trials. Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical trials after achieving positive results in earlier development, and we could face similar setbacks. The design of a clinical trial can determine whether its results will support approval of a therapeutic, and flaws in the design of a clinical trial may not become apparent until the clinical trial is well advanced. We have limited experience in designing clinical trials and may be unable to design and execute a clinical trial to support marketing approval. In addition, preclinical and clinical data are often susceptible to varying interpretations and analyses. Many companies that believed their therapeutic candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval for the therapeutic candidates. Even if we, or future collaborators, believe that the results of clinical trials for our therapeutic candidates warrant marketing approval, the MHRA, FDA, EMA or comparable foreign regulatory authorities may disagree and may not grant marketing approval of our therapeutic candidates.

In some instances, there can be significant variability in safety or efficacy results between different clinical trials of the same therapeutic candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the patient populations, changes in and adherence to the dosing regimen and other clinical trial protocols and the rate of dropout among clinical trial patients. If we fail to receive positive results in clinical trials of our therapeutic candidates, the development timeline and regulatory approval and commercialization prospects for our most advanced therapeutic candidates, and, correspondingly, our business and financial prospects would be negatively impacted.

Preliminary, interim or topline data from our clinical trials that we announce or publish from time to time may change as more 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 preliminary, interim or topline data from our preclinical studies and clinical trials, such as the topline data we recently announced for our Phase 1 clinical trial of DC-806, our lead therapeutic candidate from our IL-17 program. Preliminary, interim and topline data is based on an analysis of then-available data, and the results and related findings and conclusions are subject to change following a more comprehensive review of the data related to the particular study or 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. Further, modifications or improvements to our manufacturing processes for a therapy may result in changes to the characteristics or behavior of the therapeutic candidate that could cause our therapeutic candidates to perform differently and affect the results of our ongoing clinical trials. As a result, the topline results that we report may differ from future results of the same studies, or different conclusions or considerations may qualify such results, once additional data have been received and fully evaluated. Topline 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, topline data should be viewed with caution until the final data are available.

From time to time, we may also disclose preliminary data from or data from planned interim analysis of our preclinical studies and clinical trials. Preliminary or interim data from clinical trials 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 preliminary or interim data and final data could significantly harm our business prospects. Additionally, disclosure of preliminary or interim data by us or by our competitors could result in volatility in the price of our common stock. 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 therapeutic candidate and our company in general. If the preliminary, interim, or topline 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, any of our potential therapeutic candidates may be harmed, which could harm our business, operating results, prospects, or financial condition.

Our current and future clinical trials or those of our future collaborators may reveal significant adverse events not seen in our preclinical studies and may result in a safety profile that could inhibit regulatory approval or market acceptance of any of our therapeutic candidates.

If significant adverse events or other side effects are observed in any of our current or future clinical trials, we may have difficulty recruiting patients to such trials, patients may drop out of our trials, or we may be required to abandon the trials or our development efforts of one or more therapeutic candidates altogether. For example, certain drugs targeting the IL-17 pathway have been linked to gastrointestinal distress. We, the MHRA, FDA, EMA or other applicable regulatory authorities, or an IRB may suspend any clinical trials of any therapeutic candidate at any time for various reasons, including a belief that subjects or patients in such trials are being exposed to unacceptable health risks or adverse side effects. Some potential therapeutics developed in the biotechnology industry that initially showed therapeutic promise in early-stage trials have later been found to cause side effects that prevented their further development. Even if the side effects do not preclude the therapeutic candidate from obtaining or maintaining marketing approval, undesirable side effects may inhibit market acceptance of the approved therapeutic due to its tolerability versus other therapies. Any of these developments could materially harm our business, financial condition and prospects.

We may not be successful in our efforts to use our DELSCAPE platform to expand our pipeline of therapeutic candidates and develop marketable therapeutics.

The success of our business depends in part upon our ability to discover, develop and commercialize therapeutics based on our DELSCAPE platform. IL-17 is our lead program and our research program may fail to identify other potential therapeutic candidates for clinical development for a number of reasons. Our research methodology may be unsuccessful in identifying potential therapeutic candidates or our potential therapeutic candidates may be shown to have harmful side effects or may have other characteristics that may make the therapeutics unmarketable or unlikely to receive marketing approval. If any of these events occur, we may be forced to abandon our development efforts for a program or for multiple programs, which would materially harm our business and could potentially cause us to cease operations. Research programs to identify new therapeutic candidates require substantial technical, financial and human resources.

We may expend our limited resources to pursue a particular therapeutic candidate and fail to capitalize on therapeutic candidates 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 our research and development efforts on certain selected therapeutic candidates. For example, we are initially focused on our lead therapeutic candidate, DC-806, fast follower therapeutic candidate, DC-853, and related compounds in the IL-17 program. As a result, we may forgo or delay pursuit of opportunities with other therapeutic candidates that later prove to have 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 therapeutic candidates for specific indications may not yield any commercially viable therapeutic candidates. If we do not accurately evaluate the commercial potential or target market for a particular therapeutic candidate, we may relinquish valuable rights to that therapeutic candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such therapeutic candidate.

We face competition from entities that have developed or may develop therapeutic candidates for the diseases addressed by our therapeutic candidates, including companies developing novel treatments and technology platforms. If these companies develop technologies or therapeutic candidates more rapidly than we do or their technologies are more effective, our ability to develop and successfully commercialize therapeutic candidates may be adversely affected.

The development and commercialization of drugs is highly competitive. Our therapeutic candidates, if approved, will face significant competition and our failure to effectively compete may prevent us from achieving significant

market penetration. Most of our competitors have significantly greater resources than we do, and we may not be able to successfully compete. We compete with a variety of multinational biopharmaceutical companies, specialized biotechnology companies and emerging biotechnology companies, as well as with technologies and therapeutic candidates being developed at universities and other research institutions. Our competitors have developed, are developing or will develop therapeutic candidates and processes competitive with our therapeutic candidates and processes. Competitive therapeutic treatments include those that have already been approved and accepted by the medical community and any new treatments, including those based on novel technology platforms that enter the market. We believe that a significant number of products are currently under development, and may become commercially available in the future, for the treatment of conditions for which we are trying, or may try, to develop therapeutic candidates. There is intense and rapidly evolving competition in the biotechnology, biopharmaceutical and integrin and immunoregulatory therapeutics fields. Competition from many sources exists or may arise in the future. Our competitors include larger and better funded biopharmaceutical, biotechnological and therapeutics companies, including companies focused on therapeutics for autoimmune, cardiovascular and metabolic diseases, fibrosis and cancer, as well as numerous small companies. Moreover, we also compete with current and future therapeutics developed at universities and other research institutions. Some of these companies are well-capitalized and, in contrast to us, have significant clinical experience, and may include our existing or future collaborators. In addition, these companies compete with us in recruiting scientific and managerial talent.

Our success will depend partially on our ability to develop and commercialize therapeutics that are safer and more effective than competing therapeutics. Our commercial opportunity and success will be reduced or eliminated if competing therapeutics are safer, more effective, or less expensive than the therapeutics we develop.

Our IL-17 program, initially under development for treatment of psoriasis, if approved would face competition from approved psoriasis treatments marketed by Novartis, Amgen, Eli Lilly, and Bristol Myers Squibb, in addition to other major pharmaceutical companies.

Many of these competitors have significantly greater financial, technical, manufacturing, marketing, sales, and supply resources or experience than we have. If we successfully obtain approval for any therapeutic candidate, we will face competition based on many different factors, including the safety and effectiveness of our therapeutics, the ease with which our therapeutics can be administered and the extent to which patients accept relatively new routes of administration, the timing and scope of regulatory approvals for these therapeutics, the availability and cost of manufacturing, marketing and sales capabilities, price, reimbursement coverage and patent position. Competing therapeutics could present superior treatment alternatives, including by being more effective, safer, less expensive or marketed and sold more effectively than any therapeutics we may develop. Competitive therapeutics may make any therapeutics we develop obsolete or noncompetitive before we recover the expense of developing and commercializing our therapeutic candidates. Such competitors could also recruit our employees, which could negatively impact our level of expertise and our ability to execute our business plan.

Our current therapeutic candidates or any future therapeutic candidates may not achieve adequate market acceptance among clinicians, patients, healthcare third-party payors and others in the medical community necessary for commercial success, if approved, and we may not generate any future revenue from the sale or licensing of therapeutic candidates.

Even if regulatory approval is obtained for a therapeutic candidate, we may not generate or sustain revenue from sales of the therapeutic due to factors such as whether the therapeutic can be sold at a competitive cost and whether it will otherwise be accepted in the market. Historically, several injectable disruptive proteins have been approved by the FDA for treatment of psoriasis. However, our lead therapeutic candidate is a small molecule with the potential to modulate protein-protein interactions as effectively as systemic biologics; to date, no such oral small molecule has been approved by the FDA. Market participants with significant influence over acceptance of new treatments, such as clinicians and third-party payors, may not adopt an orally bioavailable product based on our novel technologies, and we may not be able to convince the medical community and third-party payors to accept and use, or to provide favorable reimbursement for, any therapeutic candidates developed by us or our existing or future collaborators. Market acceptance of our therapeutic candidates will depend on, among other factors:

- the timing of our receipt of any marketing and commercialization approvals;
- the terms of any approvals and the countries in which approvals are obtained;
- the safety and efficacy of our therapeutic candidates as demonstrated in any current or future clinical trials;

- the prevalence and severity of any adverse side effects associated with our therapeutic candidates;
- limitations or warnings contained in any labeling approved by the MHRA, the FDA or any other regulatory authority;
- relative convenience and ease of administration of our therapeutic candidates;
- the willingness of patients to accept any new methods of administration;
- unfavorable publicity relating to our current therapeutic candidates or any future therapeutic candidates;
- the success of our physician education programs;
- the effectiveness of sales and marketing efforts;
- the availability of coverage and adequate reimbursement from government and third-party payors;
- the pricing of our therapeutics, particularly as compared to alternative treatments; and
- the availability of alternative effective treatments for the disease indications our therapeutic candidates are intended to treat and the relative risks, benefits and costs of those treatments.

Sales of medical products also depend on the willingness of clinicians to prescribe the treatment, which is likely to be based on a determination by these clinicians that the products are safe, therapeutically effective and cost effective. In addition, the inclusion or exclusion of products from treatment guidelines established by various physician groups and the viewpoints of influential clinicians can affect the willingness of other clinicians to prescribe the treatment. We cannot predict whether clinicians, clinicians' organizations, hospitals, other healthcare providers, government agencies or private insurers will determine that our therapeutic is safe, therapeutically effective and cost effective as compared with competing treatments. If any current or future therapeutic candidate is approved but does not achieve an adequate level of acceptance by such parties, we may not generate or derive sufficient revenue from that therapeutic candidate and may not become or remain profitable.

Because our therapeutic candidates are based on new technology, we expect that they will require extensive research and development and have substantial manufacturing and processing costs. In addition, our estimates regarding potential market size for any indication may be materially different from what we discover to exist at the time we commence commercialization, if any, for a therapeutic, which could result in significant changes in our business plan and have a material adverse effect on our business, financial condition, results of operations and prospects. Moreover, if any therapeutic candidate we commercialize fails to achieve market acceptance, it could have a material and adverse effect on our business, financial condition, results of operations and prospects.

If we encounter difficulties enrolling patients in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.

We may experience difficulties in patient enrollment in our current or future clinical trials for a variety of reasons. The timely completion of clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of patients who remain in the trial until its conclusion. The enrollment of patients in future trials for any of our therapeutic candidates will depend on many factors, including:

- the patient eligibility and exclusion criteria defined in the protocol;
- the size of the patient population required for analysis of the trial's primary endpoints and the process for identifying patients;
- the willingness or availability (including legality under applicable COVID-19 regulations) of patients to participate in our trials;
- the proximity of patients to trial sites;
- the design of the trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- clinicians' and patients' perceptions as to the potential advantages and risks of the therapeutic candidate being studied in relation to other available therapies, including any new therapeutics that may be approved for the indications we are investigating;

- the availability of competing commercially available therapies and other competing therapeutic candidates' clinical trials;
- our ability to obtain and maintain patient informed consents; and
- the risk that patients enrolled in clinical trials will drop out of the trials before completion.

Further, timely enrollment in clinical trials is reliant on clinical trial sites which may be adversely affected by global health matters, including, among other things, pandemics. For example, our clinical trial sites have been affected by the COVID-19 pandemic. If patients are unable to follow the trial protocols or if our trial results are otherwise disputed due to the effects of the COVID-19 pandemic or actions taken to mitigate its spread, the integrity of data from our trials may be compromised or not accepted by the FDA or other regulatory authorities, which would represent a significant setback for the applicable program.

If in the future we are unable to establish U.S., UK or global sales and marketing capabilities or enter into agreements with third parties to sell and market our therapeutic candidates, we may not be successful in commercializing our therapeutic candidates if they are approved and we may not be able to generate any revenue.

We currently do not have a marketing or sales team for the marketing, sales and distribution of any of our current or future therapeutic candidates that are able to obtain regulatory approval. To commercialize any therapeutic candidates after approval, we must build on a territory-by-territory basis marketing, sales, distribution, managerial and other non-technical capabilities or arrange with third parties to perform these services, and we may not be successful in doing so. If our therapeutic candidates receive regulatory approval, we may decide to establish an internal sales or marketing team with technical expertise and supporting distribution capabilities to commercialize any of our current or future therapeutic candidates, which will be expensive and time consuming and will require significant attention of our current or future executive officers to manage. For example, some state and local jurisdictions have licensing and continuing education requirements for pharmaceutical sales representatives, which requires time and financial resources. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of any of our current or future therapeutic candidates that we obtain approval to market.

With respect to the commercialization of all or certain of our therapeutic candidates, we may choose to collaborate, either globally or on a territory-by-territory basis, 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. If we are unable to enter into such arrangements when needed on acceptable terms, or at all, we may not be able to successfully commercialize any of our current or future therapeutic candidates that receive regulatory approval or any such commercialization may experience delays or limitations. If we are not successful in commercializing our current or future therapeutic candidates, either on our own or through collaborations with one or more third parties, our future product revenue will suffer, and we may incur significant additional losses.

If any of our current or future therapeutic candidates receives marketing approval and we or others later identify undesirable side effects caused by such therapeutic candidate, our ability to market and derive revenue from such therapeutic candidates could be compromised.

Undesirable side effects caused by our therapeutic candidates could cause regulatory authorities to interrupt, delay or halt clinical trials and could result in more restrictive labeling or the delay or denial of regulatory approval by the MHRA, FDA, EMA or other regulatory authorities. Results of current or future clinical trials could reveal a high and unacceptable severity and prevalence of side effects. In such an event, our current or future clinical trials could be suspended or terminated and the MHRA, FDA, EMA or comparable foreign regulatory authorities could order us to cease further development of or deny approval of our therapeutic candidates for any or all targeted indications. Such side effects could also affect patient recruitment or the ability of enrolled patients to initiate or complete the clinical trial or result in potential product liability claims. Any of these occurrences may materially and adversely affect our business, financial condition, results of operations, prospects and our ability to raise capital.

Further, clinical trials by their nature utilize a sample of the potential patient population. With a limited number of patients and limited duration of exposure, rare and severe side effects of our therapeutic candidates may only be uncovered with a significantly larger number of patients exposed to the therapeutic candidate.

In the event that any of our current or future therapeutic candidates receive regulatory approval and we or others identify undesirable side effects caused by such therapeutic, any of the following adverse events could occur:

- regulatory authorities may withdraw their approval of the therapeutic or seize the therapeutic;
- we may be required to recall the therapeutic or change the way the therapeutic is administered to patients;
- additional restrictions may be imposed on the marketing of the particular therapeutic or the manufacturing processes for the therapeutic or any component thereof;
- we may be subject to fines, injunctions or the imposition of civil or criminal penalties;
- regulatory authorities may require the addition of labeling statements, such as a boxed warning or a contraindication;
- we may be required to create a Medication Guide outlining the risks of such side effects for distribution to patients;
- we may be required to implement a REMS, which may impose further requirements or restrictions on the distribution or use of our therapeutic candidates;
- we could be sued and held liable for harm caused to patients;
- the therapeutic may become less competitive; and
- our reputation may suffer.

Any of these occurrences could have a material and adverse effect on our business, financial condition, results of operations and prospects.

The FDA also may impose requirements for costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of the product, including the adoption and implementation of REMS. The FDA and other agencies, including the DOJ, closely regulate and monitor the post-approval marketing and promotion of drugs to ensure they are marketed and distributed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA and DOJ impose stringent restrictions on manufacturers' communications regarding off-label use, and if we do not market our products only for their approved indications, we may be subject to enforcement action for off-label marketing. Violations of the FD&C Act and other statutes, including the False Claims Act, relating to the promotion and advertising of prescription drugs may lead to investigations and enforcement actions alleging violations of federal and state healthcare fraud and abuse laws, as well as state consumer protection laws. Other jurisdictions, including European countries, have similar provisions which may lead to investigations and enforcement actions by national authorities.

We anticipate that some of our current or future therapeutic candidates may be studied in combination with third-party drugs, some of which may still be in development, and we have limited or no control over the supply, regulatory status, or regulatory approval of such drugs.

Some of our current or future therapeutic candidates may be studied in combination with third-party drugs. For example, we may explore the use of our oral disruptive protein-protein therapeutics targeting IL-17 as a combination therapy with other drugs for the treatment of psoriasis. The development of therapeutic candidates for use in combination with another therapeutic candidate may present challenges that are not faced for single agent therapeutic candidates. The MHRA, FDA, EMA or other regulatory authorities may require us to use more complex clinical trial designs in order to evaluate the contribution of each therapeutic candidate to any observed effects. It is possible that the results of these trials could show that any positive previous trial results are attributable to the combination therapy and not our lead therapeutic candidate. Moreover, following product approval, the MHRA, FDA, EMA or other regulatory authorities may require that products used in conjunction with each other be cross labeled for combined use. To the extent that we do not have rights to the other product, this may require us to work with a third party to satisfy such a requirement. Moreover, developments related to the other product may impact our future clinical trials for the combination as well as our commercial prospects should we receive marketing approval. Such developments may include changes to the other product's safety or efficacy profile, changes to the availability of the approved product, and changes to the standard of care.

If we pursue such combination therapies, we cannot be certain that a steady supply of such drugs will be commercially available. Any failure to enter into such commercial relationships, or the expense of purchasing therapies in the market, may delay our development timelines, increase our costs and jeopardize our ability to

develop our therapeutic candidates as commercially viable combination therapies. The occurrence of any of these could adversely affect our business, results of operations and financial condition.

In the event that any future collaborator or supplier cannot continue to supply their products on commercially reasonable terms, we would need to identify alternatives for accessing such products. Additionally, should the supply of products of any collaborator or supplier be interrupted, delayed or otherwise be unavailable to us, our clinical trials may be delayed. In the event we are unable to source a supply of any alternative therapy, or are unable to do so on commercially reasonable terms, our business, results of operations and financial condition may be adversely affected.

Risks Related to Our Reliance on Third Parties

We have historically entered into collaborations and may, in the future, seek to enter into collaborations with third parties for the discovery, development and commercialization of our therapeutic candidates. If our future collaborators cease development efforts under collaboration agreements, or if those agreements are terminated, the collaborations may fail to lead to commercial products, and we may never receive milestone payments or future royalties under the agreements.

We may in the future seek third-party collaborators for research, development and commercialization of other therapeutic technologies or therapeutic candidates. Biopharmaceutical companies are our prior and likely future collaborators for any marketing, distribution, development, licensing or broader collaboration arrangements. If we fail to enter into future collaborations on commercially reasonable terms, or at all, or such collaborations are not successful, we may not be able to execute our strategy to develop certain targets, therapeutic candidates or disease areas that we believe could benefit from the resources of either larger biopharmaceutical companies or those specialized in a particular area of relevance.

With respect to any future collaboration agreements, we expect to have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our current or future therapeutic candidates. Moreover, our ability to generate revenue from these arrangements will depend on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements.

Collaborations involving our current or future therapeutic candidates currently pose, and will continue to pose, the following risks to us:

- collaborators have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not pursue development and commercialization of our therapeutic candidates or may elect not to continue or renew development or commercialization programs based on preclinical studies or clinical trial results, changes in the collaborators' strategic focus or available funding, or external factors such as an acquisition that diverts resources or creates competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a therapeutic candidate, repeat or conduct new clinical trials or require a new formulation of a therapeutic candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our current or future therapeutic candidates if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- collaborators with marketing and distribution rights to one or more therapeutics may not commit sufficient resources to the marketing and distribution of such therapeutic or therapeutics;
- collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to litigation or potential liability;
- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;

- disputes may arise between the collaborators and us that result in the delay or termination of the research, development or commercialization of our current or future therapeutic candidates or that result in costly litigation or arbitration that diverts management attention and resources; and
- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable therapeutic candidates.

As a result of the foregoing, any future collaboration agreements may not lead to development or commercialization of our therapeutic candidates in the most efficient manner or at all. If a current or future collaborator of ours were to be involved in a business combination, the continued pursuit and emphasis on our current or future product development or commercialization program could be delayed, diminished or terminated. Any failure to successfully develop or commercialize our therapeutic candidates pursuant to our current or any future collaboration agreements could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Moreover, to the extent that any future collaborators were to terminate a collaboration agreement, we may be forced to independently develop these therapeutic candidates, including funding preclinical studies or clinical trials, assuming marketing and distribution costs and defending intellectual property rights, or, in certain instances, abandon therapeutic candidates altogether, any of which could result in a change to our business plan and have a material adverse effect on our business, financial condition, results of operations and prospects.

We may have conflicts with future collaborators that could delay or prevent the development or commercialization of our therapeutic candidates.

We may have conflicts with future collaborators, such as conflicts concerning the interpretation of preclinical or clinical data, the achievement of milestones, the interpretation of contractual obligations, payments for services, development obligations or the ownership of intellectual property developed during our collaboration. If any conflicts arise with any of our collaborators, such collaborator may act in a manner that is adverse to our best interests. Any such disagreement could result in one or more of the following, each of which could delay or prevent the development or commercialization of our therapeutic candidates, and in turn prevent us from generating revenue: unwillingness on the part of a collaborator to pay us milestone payments or royalties we believe are due to us under a collaboration, which could require us to raise additional capital; uncertainty regarding ownership of intellectual property rights arising from our collaborative activities, which could prevent us from entering into additional collaborations; unwillingness by the collaborator to cooperate in the development or manufacture of the therapeutic, including providing us with therapeutic data or materials; unwillingness on the part of a collaborator to keep us informed regarding the progress of its development and commercialization activities or to permit public disclosure of the results of those activities; initiating of litigation or alternative dispute resolution options by either party to resolve the dispute; or attempts by either party to terminate the agreement.

We may not successfully engage in strategic transactions, including any collaborations we seek, which could adversely affect our ability to develop and commercialize therapeutic candidates, impact our cash position, increase our expenses and present significant distractions to our management.

From time to time, we may consider strategic transactions, such as collaborations, acquisitions of companies, asset purchases and out- or in-licensing of therapeutic candidates or technologies that we believe will complement or augment our existing business. In particular, we will evaluate and, if strategically attractive, seek to enter into collaborations, including with major biotechnology or biopharmaceutical companies. The competition for collaborators is intense, and the negotiation process is time-consuming and complex. Any new collaboration may be on terms that are not optimal for us, and we may not be able to maintain any new collaboration if, for example, development or approval of a therapeutic candidate is delayed, sales of an approved therapeutic candidate do not meet expectations or the collaborator terminates the collaboration. In addition, a significant number of recent business combinations among large pharmaceutical companies has resulted in a reduced number of potential future strategic partners. Our collaborators may consider alternative therapeutic candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our therapeutic candidate. Our ability to reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the strategic partner's resources and expertise, the terms and conditions of the proposed collaboration and the proposed strategic partner's evaluation of a number of factors. These factors may include the design or results of clinical trials, the likelihood of approval by the MHRA, FDA, EMA or similar regulatory authorities outside the United States, the potential market for the subject therapeutic candidate, the costs and complexities of manufacturing and delivering such therapeutic candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can

exist if there is a challenge to such ownership without regard to the merits of the challenge and industry and market conditions generally. Moreover, if we acquire assets with promising markets or technologies, we may not be able to realize the benefit of acquiring such assets if we are not able to successfully integrate them with our existing technologies. We may encounter numerous difficulties in developing, testing, manufacturing and marketing any new products resulting from a strategic acquisition that delay or prevent us from realizing their expected benefits or enhancing our business.

We cannot assure you that following any such collaboration, or other strategic transaction, we will achieve the expected synergies to justify the transaction. For example, such transactions may require us to incur non-recurring or other charges, increase our near- and long-term expenditures and pose significant integration or implementation challenges or disrupt our management or business. These transactions would entail numerous operational and financial risks, including exposure to unknown liabilities, disruption of our business and diversion of our management's time and attention in order to manage a collaboration or develop acquired products, therapeutic candidates or technologies, incurrence of substantial debt or dilutive issuances of equity securities to pay transaction consideration or costs, higher than expected collaboration, acquisition or integration costs, write-downs of assets or goodwill or impairment charges, increased amortization expenses, difficulty and cost in facilitating the collaboration or combining the operations and personnel of any acquired business, impairment of relationships with key suppliers, manufacturers or customers of any acquired business due to changes in management and ownership and the inability to retain key employees of any acquired business.

Accordingly, although there can be no assurance that we will undertake or successfully complete any transactions of the nature described above, any transactions that we do complete may be subject to the foregoing or other risks and would have a material and adverse effect on our business, financial condition, results of operations and prospects. Conversely, any failure to enter any additional collaboration or other strategic transaction that would be beneficial to us could delay the development and potential commercialization of our current or future therapeutic candidates and have a negative impact on the competitiveness of any therapeutic candidate that reaches market.

In addition, the anticipated benefit of any strategic alliance, joint venture or acquisition may not materialize or such strategic alliance, joint venture or acquisition may be prohibited. In April 2021, we entered into the SVB Loan and Security Agreement with SVB, which was amended in June 2022 and which restricts our ability to pursue certain mergers and acquisitions, that we may believe to be in our best interest. Additionally, future acquisitions or dispositions could result in potentially dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities or amortization expenses or write-offs of goodwill, any of which could harm our financial condition. We cannot predict the number, timing or size of future joint ventures or acquisitions, or the effect that any such transactions might have on our operating results.

We rely and expect to continue to rely on third parties to conduct certain of our preclinical studies or clinical trials. If those third parties do not perform as contractually required, fail to satisfy legal or regulatory requirements, miss expected deadlines or terminate the relationship, our development program could be delayed with potentially material and adverse effects on our business, financial condition, results of operations and prospects.

We rely and intend to rely in the future on third-party clinical investigators, CROs, clinical data management organizations and consultants to assist or provide the design, conduct, supervision and monitoring of preclinical studies and any current or future clinical trials of our current or future therapeutic candidates. Because we currently rely and intend to continue to rely on these third parties and will not have the ability to conduct all preclinical studies or clinical trials independently, we will have less control over the timing, quality and other aspects of preclinical studies and clinical trials than we would have had we conducted them on our own. These investigators, CROs and consultants will not be our employees and we will have limited control over the amount of time and resources that they dedicate to our programs. These third parties may have contractual relationships with other entities, some of which may be our competitors, which may draw time and resources from our programs. The third parties with which we may contract might not be diligent, careful or timely in conducting our preclinical studies or clinical trials, resulting in the preclinical studies or clinical trials being delayed or unsuccessful.

If we cannot contract with acceptable third parties on commercially reasonable terms, or at all, or if these third parties do not carry out their contractual duties, satisfy legal and regulatory requirements for the conduct of preclinical studies or clinical trials or meet expected deadlines, our clinical development programs could be delayed and otherwise adversely affected. In all events, we will be responsible for ensuring that each of our preclinical studies and clinical trials are conducted in accordance with the general investigational plan and protocols for the trial

as well as applicable legal and regulatory requirements. The MHRA and the FDA generally require preclinical studies to be conducted in accordance with good laboratory practices and clinical trials to be conducted in accordance with good clinical practices, including for designing, conducting, recording and reporting the results of preclinical studies and clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of clinical trial participants are protected. Our reliance on third parties that we do not control will not relieve us of these responsibilities and requirements. Any adverse development or delay in our preclinical studies or clinical trials as a result of our reliance on third parties could have a material and adverse effect on our business, financial condition, results of operations and prospects.

If any of our relationships with these third-party CROs or others terminate, we may not be able to enter into arrangements with alternative CROs or other third parties or to do so on commercially reasonable terms. Switching or adding additional CROs involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new CRO begins work. As a result, delays may occur, which can materially impact our ability to meet our desired clinical development timelines.

We rely on third-party manufacturers and suppliers to supply components of our therapeutic candidates. The loss of our third-party manufacturers or suppliers, or their failure to comply with applicable regulatory requirements or to supply sufficient quantities at acceptable quality levels or prices, or at all, would materially and adversely affect our business.

We do not own or operate facilities for drug manufacturing, storage, distribution or quality testing. We currently rely, and may continue to rely, on third-party contract manufacturers, including in the UK and China, to manufacture bulk drug substances, drug products, raw materials, samples, components, or other materials and reports. Reliance on third-party manufacturers may expose us to different risks than if we were to manufacture therapeutic candidates ourselves. There can be no assurance that our preclinical and clinical development product supplies will not be limited, interrupted, terminated or of satisfactory quality or continue to be available at acceptable prices. For example, rhodium, a reagent we use in our studies, has recently been in short supply, resulting in increased purchasing costs. In addition, any replacement of our manufacturer could require significant effort and expertise because there may be a limited number of qualified replacements.

The manufacturing process for a therapeutic candidate is subject to MHRA, FDA, EMA and foreign regulatory authority review. We, and our suppliers and manufacturers, some of which are currently our sole source of supply, must meet applicable manufacturing requirements and undergo rigorous facility and process validation tests required by regulatory authorities in order to comply with regulatory standards, such as current Good Manufacturing Practices ("cGMPs"). Securing marketing approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the MHRA, FDA, EMA and foreign regulatory authorities. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the MHRA, FDA, EMA comparable foreign regulatory authorities, we may not be able to rely on their manufacturing facilities for the manufacture of elements of our therapeutic candidates. Moreover, we do not control the manufacturing process at our contract manufacturers and are completely dependent on them for compliance with current regulatory requirements. In the event that any of our manufacturers fails to comply with such requirements or to perform its obligations in relation to quality, timing or otherwise, or if our supply of components or other materials becomes limited or interrupted for other reasons, we may be forced to enter into an agreement with another third party, which we may not be able to do on reasonable terms, if at all. In some cases, the technical skills or technology required to manufacture our therapeutic candidates may be unique or proprietary to the original manufacturer and we may have difficulty transferring such to another third party.

These factors would increase our reliance on such manufacturer or require us to obtain a license from such manufacturer in order to enable us, or to have another third party, manufacture our therapeutic candidates. If we are required to change manufacturers for any reason, we will be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards and with all applicable regulations and guidelines; and we may be required to repeat some of the development program. The delays associated with the verification of a new manufacturer could negatively affect our ability to develop therapeutic candidates in a timely manner or within budget.

We expect to continue to rely on third-party manufacturers if we receive regulatory approval for any therapeutic candidate. To the extent that we have existing, or enter into future, manufacturing arrangements with third parties, we will depend on these third parties to perform their obligations in a timely manner consistent with contractual and

regulatory requirements, including those related to quality control and assurance. Any manufacturing facilities used to produce our therapeutics will be subject to periodic review and inspection by the MHRA, or the FDA and foreign regulatory authorities, including for continued compliance with cGMP requirements, quality control, quality assurance and corresponding maintenance of records and documents. If we are unable to obtain or maintain third-party manufacturing for therapeutic candidates, or to do so on commercially reasonable terms, we may not be able to develop and commercialize our therapeutic candidates successfully. Our or a third party's failure to execute on our manufacturing requirements, comply with cGMPs or maintain a compliance status acceptable to the MHRA, FDA, EMA or foreign regulatory authorities could adversely affect our business in a number of ways, including:

- an inability to initiate or continue clinical trials of therapeutic candidates under development;
- delay in submitting regulatory applications, or receiving regulatory approvals, for therapeutic candidates;
- loss of the cooperation of existing or future collaborators;
- subjecting third-party manufacturing facilities to additional inspections by regulatory authorities;
- requirements to cease distribution or to recall batches of our therapeutic candidates; and
- in the event of approval to market and commercialize a therapeutic candidate, an inability to meet commercial demands for our therapeutics.

Additionally, our contract manufacturers may experience manufacturing difficulties due to resource constraints or as a result of labor disputes or unstable political environments. If our contract manufacturers were to encounter any of these difficulties, our ability to provide our therapeutic candidates to patients in preclinical and clinical trials, or to provide product for treatment of patients once approved, would be jeopardized.

For example, the UK formally left the EU on January 31, 2020, often referred to as Brexit, and the transition period ended on December 31, 2020. Brexit has caused uncertainty in the current regulatory framework in Europe. For instance, Brexit has resulted in the European Medicines Agency, or the EMA, moving from the UK to the Netherlands. In the UK, Brexit may cause disruption in the administrative and medical scientific links between the EMA and MHRA. On December 31, 2020, the UK passed legislation giving effect to the trade and cooperation agreement, which the EU ratified in April 2021. The trade and cooperation agreement entered into force in May 2021. The trade and cooperation agreement sets out certain procedures for approval and recognition of medical products in each jurisdiction. Any delay in obtaining, or an inability to obtain, any marketing approvals, as a result of the trade and cooperation agreement or otherwise, could prevent us from commercializing any therapeutic candidates in the UK and/or the EU and restrict our ability to generate revenue and achieve and sustain profitability. If any of these outcomes occur, we may be forced to restrict or delay efforts to seek regulatory approval in the UK and/or EU for any therapeutic candidates, which could significantly and materially harm our business. The current lack of detail and resolution with regard to the Brexit implementation may result in a disruption of the manufacturing and supply of components of our therapeutic candidates in the UK and we are unable to confidently predict the effects of such disruption to the regulatory framework in Europe. Any adjustments we make to our business and operations as a result of Brexit could result in significant delays and additional expense. Any of the foregoing factors could have a material adverse effect on our business, results of operations, or financial condition.

Changes in methods of therapeutic candidate manufacturing or formulation may result in additional costs or delay.

As therapeutic candidates progress through preclinical and clinical trials to marketing approval and commercialization, it is common that various aspects of the development program, such as manufacturing methods and formulation, are altered along the way in an effort to optimize yield and manufacturing batch size, minimize costs and achieve consistent quality and results. Such changes carry the risk that they will not achieve these intended objectives. Any of these changes could cause our therapeutic candidates to perform differently and affect the results of current or future clinical trials conducted with the altered materials. This could delay completion of clinical trials, require the conduct of bridging clinical trials or the repetition of one or more clinical trials, increase clinical trial costs, delay approval of our therapeutic candidates and jeopardize our ability to commercialize our therapeutic candidates, if approved, and generate revenue.

The manufacturing of our small molecules is complex, and our third-party manufacturers may encounter difficulties in production. If we or any of our third-party manufacturers encounter such difficulties, our ability to provide supply of our therapeutic candidates for clinical trials, our ability to obtain marketing approval, or our ability to provide supply of our therapeutics for patients, if approved, could be delayed or stopped.

Our therapeutic candidates are biopharmaceuticals and the process of manufacturing biopharmaceuticals is complex, time-consuming, highly regulated and subject to multiple risks. Our contract manufacturers must comply with legal requirements, cGMPs and guidelines for the manufacturing of biopharmaceuticals used in clinical trials and, if approved, marketed therapeutics. Our contract manufacturers may have limited experience in the manufacturing of cGMP batches.

Manufacturing biopharmaceuticals is highly susceptible to product loss due to contamination, equipment failure, improper installation or operation of equipment, vendor or operator error, inconsistency in yields, variability in product characteristics and difficulties in scaling the production process. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects and other supply disruptions. If microbial, viral or other contaminations are discovered at our third-party manufacturers' facilities, such facilities may need to be closed for an extended period of time to investigate and remedy the contamination, which could delay clinical trials and adversely harm our business.

In addition, there are risks associated with large scale manufacturing for clinical trials or commercial scale including, among others, cost overruns, potential problems with process scale-up, process reproducibility, stability issues, compliance with cGMPs, lot consistency and timely availability of raw materials. Even if our collaborators obtain regulatory approval for any of our therapeutic candidates, there is no assurance that manufacturers will be able to manufacture the approved product to specifications acceptable to the MHRA, FDA, EMA or other regulatory authorities, to produce it in sufficient quantities to meet the requirements for the potential launch of the product or to meet potential future demand. If our manufacturers are unable to produce sufficient quantities for clinical trials or for commercialization, commercialization efforts would be impaired, which would have an adverse effect on our business, financial condition, results of operations and prospects.

Scaling up a biopharmaceutical manufacturing process is a difficult and uncertain task, and our third-party manufacturers may not have the necessary capabilities to complete the implementation, manufacturing and development process. If we are unable to adequately validate or scale-up the manufacturing process at our current manufacturers' facilities, we will need to transfer to another manufacturer and complete the manufacturing validation process, which can be lengthy. If we are able to adequately validate and scale-up the manufacturing process for our therapeutic candidates with a contract manufacturer, we will still need to negotiate with such contract manufacturer an agreement for commercial supply and it is not certain we will be able to come to agreement on terms acceptable to us.

We cannot assure you that any stability or other issues relating to the manufacture of any of our current or future therapeutic candidates or products will not occur in the future. If our third-party manufacturers were to encounter any of these difficulties, our ability to provide any therapeutic candidates to patients in planned clinical trials and products to patients, once approved, would be jeopardized. Any delay or interruption in the supply of clinical trial supplies could delay the completion of planned clinical trials, increase the costs associated with maintaining clinical trial programs and, depending upon the period of delay, require us to commence new clinical trials at additional expense or terminate clinical trials completely. Any adverse developments affecting clinical or commercial manufacturing of our therapeutic candidates or products may result in shipment delays, inventory shortages, lot failures, product withdrawals or recalls, or other interruptions in the supply of our therapeutic candidates or products. We may also have to take inventory write-offs and incur other charges and expenses for therapeutic candidates or products that fail to meet specifications, undertake costly remediation efforts or seek more costly manufacturing alternatives. Accordingly, failures or difficulties faced at any level of our supply chain could adversely affect our business and delay or impede the development and commercialization of any of our therapeutic candidates or products, if approved, and could have an adverse effect on our business, prospects, financial condition and results of operations.

As part of our process development efforts, we also may make changes to the manufacturing processes at various points during development, for various reasons, such as controlling costs, achieving scale, decreasing processing time, increasing manufacturing success rate or other reasons. Such changes carry the risk that they will not achieve their intended objectives, and any of these changes could cause our current or future therapeutic candidates to perform differently and affect the results of our current or future clinical trials. In some circumstances, changes in

the manufacturing process may require us to perform *ex vivo* comparability studies and to collect additional data from patients prior to undertaking more advanced clinical trials. For instance, changes in our process during the course of clinical development may require us to show the comparability of the product used in earlier clinical phases or at earlier portions of a trial to the product used in later clinical phases or later portions of the trial.

Risks Related to Our Business and Operations

We will need to grow our organization, and we may experience difficulties in managing our growth and expanding our operations, which could adversely affect our business.

As of December 31, 2022, we had 71 full-time employees. As our development and commercialization plans and strategies develop, and as we continue to expand our capabilities as a public company, we expect to expand our employee base for managerial, operational, financial and other resources. In addition, we have limited experience in product development. As our therapeutic candidates enter and advance through preclinical studies and clinical trials, we will need to expand our development and regulatory capabilities and contract with other organizations to provide manufacturing and other capabilities for us. In the future, we expect to have to manage additional relationships with collaborators or partners, suppliers and other organizations. Our ability to manage our operations and future growth will require us to continue to improve our operational, financial and management controls, reporting systems and procedures. We may not be able to implement improvements to our management information and control systems in an efficient or timely manner and may discover deficiencies in existing systems and controls. Our inability to successfully manage our growth and expand our operations could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Any inability to attract and retain qualified key management and technical personnel would impair our ability to implement our business plan.

Our success largely depends on the continued service of key management, advisors and other specialized personnel, including J. Kevin Judice, Ph.D., our co-founder and chief executive officer. We currently do not maintain key person insurance on these individuals. The loss of one or more members of our management team or other key employees or advisors could delay our research and development programs and have a material and adverse effect on our business, financial condition, results of operations and prospects. The relationships that our key managers have cultivated within our industry make us particularly dependent upon their continued employment with us. We are dependent on the continued service of our technical personnel, in particular, personnel involved with disrupting protein-protein interactions, because of the highly technical nature of our therapeutic candidates and technologies related to our DELSCAPE platform, and the specialized nature of the regulatory approval process. Because our management team and key employees are not obligated to provide us with continued service, they could terminate their employment with us at any time without penalty.

We conduct our operations at our facility in South San Francisco, California. This region is headquarters to many other biopharmaceutical companies and many academic and research institutions. Competition for skilled personnel in our market is intense and may limit our ability to hire and retain highly qualified personnel on acceptable terms or at all. We also face competition for personnel from other companies, universities, public and private research institutions, government entities and other organizations. Our future success will depend in large part on our continued ability to attract and retain other highly qualified scientific, technical and management personnel, as well as personnel with expertise in clinical testing, manufacturing, governmental regulation and commercialization. If we are unable to continue to attract and retain high-quality personnel, the rate and success at which we can discover and develop therapeutic candidates will be limited which could have a material and adverse effect on our business, financial condition, results of operations and prospects.

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 therapeutic candidates in foreign markets for which we may rely on collaboration with third parties. We are not permitted to market or promote any of our therapeutic candidates before we receive regulatory approval from the applicable regulatory authority in that foreign market, and may never receive such regulatory approval for any of our therapeutic candidates. To obtain separate regulatory approval in many other countries, we must comply with numerous and varying regulatory requirements of such countries regarding safety and efficacy and governing, among other things, clinical trials and commercial sales, pricing and distribution of our therapeutic candidates, and we cannot predict

success in these jurisdictions. If we fail to comply with the regulatory requirements in international markets and receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of our therapeutic candidates will be harmed and our business will be adversely affected. We may not obtain foreign regulatory approvals on a timely basis, if at all. Our failure to obtain approval of any of our therapeutic candidates by regulatory authorities in another country may significantly diminish the commercial prospects of that therapeutic candidate and our business, financial condition, results of operations and prospects could be materially and adversely affected. Moreover, even if we obtain approval of our therapeutic candidates and ultimately commercialize our therapeutic candidates in foreign markets, we would be subject to the risks and uncertainties, including the burden of complying with complex and changing foreign regulatory, tax, accounting and legal requirements and reduced protection of intellectual property rights in some foreign countries.

Our business entails a significant risk of product liability and our ability to obtain sufficient insurance coverage could have a material and adverse effect on our business, financial condition, results of operations and prospects.

In conducting clinical trials of our current or future therapeutic candidates, we may be exposed to significant product liability risks inherent in the development, testing, manufacturing and marketing of therapeutic treatments. Product liability claims could delay or prevent completion of our development programs. If we succeed in marketing products, such claims could result in an MHRA, FDA, EMA or the investigation of the safety and effectiveness of our future therapeutics, our manufacturing processes and facilities or our marketing programs and potentially a recall of our therapeutics or more serious enforcement action, limitations on the approved indications for which they may be used or suspension or withdrawal of approvals. Regardless of the merits or eventual outcome, liability claims may also result in decreased demand for our therapeutics, termination of clinical trial sites or entire trial programs, withdrawal of clinical trial participants, injury to our reputation and significant negative media attention, significant costs to defend the related litigation, a diversion of management's time and our resources from our business operations, substantial monetary awards to trial participants or patients, loss of revenue, the inability to commercialize products that we may develop, and a decline in our stock price. We currently maintain general liability insurance with coverage up to $2 million per occurrence. We may, however, need to obtain higher levels of product liability insurance for later stages of clinical development or marketing any of our therapeutic candidates. Any insurance we have or may obtain may not provide sufficient coverage against potential liabilities. Furthermore, clinical trial and product liability insurance is becoming increasingly expensive. As a result, we may be unable to obtain sufficient insurance at a reasonable cost to protect us against losses caused by product liability claims that could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Our employees, independent contractors, consultants, commercial partners and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk of employee fraud or other illegal activity by our employees, independent contractors, consultants, commercial partners and vendors. Misconduct by these parties could include intentional, reckless and/or negligent conduct that fails to comply with MHRA or FDA, respectively, regulations, provide true, complete and accurate information to the MHRA, FDA, EMA and other similar foreign regulatory bodies, comply with manufacturing standards we may establish, comply with healthcare fraud and abuse laws and regulations, report financial information or data accurately or disclose unauthorized activities to us. If we obtain FDA approval of any of our therapeutic candidates and begin commercializing those products in the United States, our potential exposure under these laws will increase significantly, and our costs associated with compliance with these laws are likely to increase. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. Additionally, we are subject to the risk that a person could allege such fraud or other misconduct, even if none occurred. It is not always possible to identify and deter employee misconduct, 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 comply with such laws or regulations. 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 material and adverse effect on our business, financial condition, results of operations and prospects, including the imposition of significant civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, the curtailment or restructuring of our operations, loss of eligibility to obtain approvals from the FDA, exclusion from participation

in government contracting, healthcare reimbursement or other government programs, including Medicare and Medicaid, integrity oversight and reporting obligations, or reputational harm.

We depend on our information technology systems, and any failure of these systems, or those of our CROs or other third parties with whom we may work, could harm our business. Security breaches, cyber-attacks, loss of data, and other disruptions could compromise sensitive information related to our business or prevent us from accessing critical information and expose us to liability, which could adversely affect our business, results of operations, financial condition and prospects.

We collect and maintain information that is necessary to conduct our business, and we are increasingly dependent on information technology systems and infrastructure to operate our business. In the ordinary course of our business, we may collect, store, process and transmit large amounts of proprietary, sensitive and confidential information, including intellectual property, business information and personal information. It is critical that we do so in a secure manner to maintain the confidentiality, integrity and availability of such information. We have established physical, electronic and organizational measures to safeguard and secure our systems to prevent a data compromise, and rely on commercially available systems, software, tools, and monitoring to provide security for our information technology systems and the processing, transmission and storage of information. We face a number of risks relative to protecting this critical information, including loss of access risk, inappropriate use or disclosure, inappropriate modification, and the risk of our being unable to adequately monitor, audit, and modify our controls over our critical information. We have also outsourced elements of our information technology infrastructure, and as a result these risks extend to third parties with whom we work, and those third parties may have access to our information.

Despite the implementation of security measures, given the size, complexity, and increasing amounts of proprietary, sensitive, and confidential information maintained by our internal information technology systems and those of our CROs, contract manufacturing organizations ("CMOs"), vendors, contractors, consultants, and other third party partners, such systems are vulnerable to breach, breakdown, service interruptions, system malfunction, accidents by our personnel or third party partners, natural disasters, terrorism, global pandemics, war and telecommunication and electrical failures, as well as security breaches from inadvertent or intentional actions by our personnel or those of our CROs, CMOs, vendors, contractors, consultants, business partners and/or other third party partners, or from cyber-attacks (including through viruses, phishing attacks, spamming, worms, malicious code, malware, ransomware, denial-of-service attacks, social engineering and other means to affect service reliability and the confidentiality, integrity and availability of information), which may compromise or lead to data leakage of our system infrastructure or data, or that of our third party partners.

The risk of a security breach or disruption or data loss, particularly through cyber-attacks or cyber intrusion, including by computer hackers, foreign governments and cyber terrorists, has generally increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. In addition, the prevalent use of mobile devices and remote work applications that access confidential information increases the risk of data security breaches, which could lead to the loss of sensitive, proprietary or confidential information or unauthorized access to personal information.

As more companies and individuals work online and work remotely, the risk of a cybersecurity incident potentially occurring, and our investment in risk mitigations against such an incident, is increasing. For example, there has been an increase in phishing and spam emails as well as social engineering attempts from hackers hoping to use the recent COVID-19 pandemic to their advantage. Additionally, ransomware attacks, including those from organized criminal threat actors, nation-states and nation-state supported actors, are becoming increasingly prevalent and severe and can lead to significant interruptions, delays, or outages in our operations, disruption of clinical trials, loss of data (including data related to clinical trials), loss of income, significant extra expenses to restore data or systems, reputational loss and the diversion of funds. To alleviate the financial, operational and reputational impact of a ransomware attack it may be necessary to make extortion payments, but we may be unable to do so if applicable laws prohibit such payments.

We have not always been able in the past and may be unable in the future to anticipate all types of security threats, nor may we be able to implement preventive measures effective against all such security threats. The techniques used by cyber criminals change frequently, may not be recognized until launched, and can originate from a wide variety of sources, including outside groups such as external service providers, organized crime affiliates, terrorist organizations or hostile foreign governments or agencies. In addition, individuals have in the past and may continue in the future to actively search for and exploit actual and potential vulnerabilities in our or our partners' information technology and communications. For example, in August 2020 we were subject to a cyber-attack that resulted in

unauthorized access to certain company email accounts and shared drives. The intruders used this access to induce a series of fraudulent transfers to outside bank accounts resulting in an aggregate loss of approximately $0.7 million. Although we have subsequently reviewed and enhanced our security and payment systems, there can be no assurance that we will not be the target of a similar or more sophisticated attack in the future, which could materially adversely affect our business, results of operations, financial condition and prospects.

To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or those of our CROs, CMOs, vendors, contractors, consultants, and other third party partners, or inappropriate disclosure of proprietary, sensitive, personal, or confidential information, we could incur liability and reputational damage, our product development programs could be materially disrupted, and our therapeutic candidates could be delayed. In addition, the loss of clinical trial data for our therapeutic candidates could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Any breach, loss or compromise of proprietary, sensitive, personal or confidential information may also subject us to civil fines and penalties under relevant state and federal privacy laws in the United States. For example, the California Consumer Privacy Act of 2018 ("CCPA") imposes a private right of action for security breaches that could lead to some form of remedy including regulatory scrutiny, fines, private right of action settlements, and other consequences. In addition, a breach may require notification to governmental agencies, the media or individuals pursuant to various federal and state privacy and security laws, if applicable, including the Health Insurance Portability and Accountability Act of 1996 ("HIPAA") as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 ("HITECH") and its implementing rules and regulations, as well as regulations promulgated by the Federal Trade Commission and state breach notification laws.

We are required to comply with laws, rules and regulations that require us to maintain the security of personal information. Our agreements with certain customers or business partners may require us to use industry-standard or reasonable measures to safeguard personal information. We also may be subject to laws that require us to use industry-standard or reasonable security measures to safeguard personal information. A security breach could lead to claims by our customers, business partners, or other relevant stakeholders that we have failed to comply with such legal or contractual obligations. In addition, our inability to comply with data privacy obligations in our contracts with customers or business partners, or our inability to flow down customer obligations to our CROs, CMOs, vendors, contractors, consultants, and other third party partners may cause us to breach our customer or partner contracts. As a result, we could be subject to legal action or our customers or business partners could end their relationships with us. There can be no assurance that the limitations of liability in our contracts would be enforceable or adequate or would otherwise protect us from liabilities or damages.

Most jurisdictions have enacted laws requiring companies to notify individuals, regulatory authorities, and others of security breaches involving certain types of data. In addition, our agreements with CROs, CMOs, vendors, contractors, consultants, and other third-party partners may require us to notify them in the event of a security breach. Such mandatory disclosures are costly, could lead to negative publicity, may cause our customers to lose confidence in the effectiveness of our security measures and require us to expend significant capital and other resources to respond to and/or alleviate problems caused by the actual or perceived security breach.

The costs to respond to a security breach and/or to mitigate any security vulnerabilities that may be identified could be significant, our efforts to address these issues may not be successful, and these issues could result in interruptions, delays, negative publicity, loss of customer trust, diminished use of our products as well as other harms to our business and our competitive position. Remediation of any potential security breach may involve significant time, resources, and expenses. Any security breach may result in regulatory inquiries, litigation or other investigations, and can affect our financial and operational condition. Litigation resulting from security breaches may adversely affect our business. Unauthorized access to our systems, networks, or physical facilities could result in litigation with our customers or other relevant stakeholders. These proceedings could force us to spend money in defense or settlement, divert management's time and attention, increase our costs of doing business, or adversely affect our reputation.

We may not have adequate insurance coverage for security breaches, including fines, judgments, settlements, penalties, costs, attorney fees and other impacts that arise out of incidents or breaches. The successful assertion of one or more large claims against us that exceeds available insurance coverage, or results in changes to insurance policies (including premium increases or the imposition of large deductible or co-insurance requirements), could have an adverse effect on our business. In addition, we cannot be sure that our existing insurance coverage and coverage for errors and omissions will continue to be available on acceptable terms or that our insurers will not deny

coverage as to any future claim. Our risks are likely to increase as we continue to expand, grow our customer base, and process, store, and transmit increasingly large amounts of data.

We are subject to stringent and changing laws, regulations and standards, and contractual obligations relating to privacy, data protection, and data security. The actual or perceived failure to comply with such obligations could lead to government enforcement actions (which could include civil or criminal penalties), fines and sanctions, private litigation and/or adverse publicity and could negatively affect our operating results and business.

We, and third parties who we work with are or may become subject to numerous domestic and foreign laws, regulations, and standards relating to privacy, data protection, and data security, the scope of which is changing, subject to differing applications and interpretations, and may be inconsistent among countries, or conflict with other rules. We are or may become subject to the terms of contractual obligations related to privacy, data protection, and data security. Our obligations may also change or expand as our business grows. The actual or perceived failure by us or third parties related to us to comply with such obligations could increase our compliance and operational costs, expose us to regulatory scrutiny, actions, fines and penalties, result in reputational harm, lead to a loss of customers, result in litigation and liability, and otherwise cause a material adverse effect on our business, financial condition, and results of operations.

In the United States, numerous federal and state laws and regulations govern the collection, use, disclosure and protection of health-related and other personal information and could apply to our operations or the operations of third partners with whom we work. In addition, we may obtain health information from third parties that are subject to privacy and security requirements under HIPAA, as amended by HITECH.

The state of California enacted the CCPA, which creates new individual privacy rights for California consumers and places increased privacy and data security obligations on entities handling personal information of consumers or households. The CCPA went into effect on January 1, 2020 and may impact our business activities and exemplifies the vulnerability of our business to the evolving regulatory environment related to personal information and protected health information. Additionally, the California Privacy Rights Act ("CPRA"), which expands upon the CCPA, is now in effect as of January 1, 2023 with enforcement beginning on July 1, 2023, subject to regulations promulgated through a newly created enforcement agency called the California Privacy Protection Agency ("CPPA"). The CCPA provides California residents expanded privacy rights, including the right to request correction, access, and deletion of their personal information, the right to opt out of certain personal information sharing, and the right to receive detailed information about how their personal information is processed including by California residents' employers. The CCPA and CPRA provide for civil penalties and a private right of action for data breaches that is expected to increase data breach litigation. The CCPA and CPRA may increase our compliance costs and potential liability. Notably, comparable consumer privacy laws are set to take effect in 2023 in other states including the Virginia Consumer Data Protection Act (effective January 1, 2023), the Colorado Privacy Act and the Connecticut Data Privacy Act (both effective July 1, 2023), and the Utah Consumer Privacy Act (effective December 31, 2023). Compliance with this new privacy legislation adds complexity and may require investment in additional resources for compliance programs, thus potentially result in additional costs and expense of resources to maintain compliance.

Foreign laws and regulations relating to privacy, data protection, and data security, including the General Data Protection Regulation ("GDPR") may apply to health-related and other personal information obtained outside of the United States. The GDPR imposes strict obligations on businesses, including requiring changes to informed consent practices and more detailed notices for clinical trial subjects and investigators, requiring limitations on data processing, establishing a legal basis for processing personal information, notification of data processing obligations, notification of security breaches to appropriate data protection authorities or data subjects, protecting the security and confidentiality of the personal information, and establishing means for data subjects to exercise rights in relation to their personal information. The GDPR subjects noncompliant companies to fines of up to the greater of 20 million Euros or 4% of their global annual revenue, potential bans on processing of personal information (including clinical trials), and private litigation. To the extent applicable, the GDPR may increase our responsibility and liability in relation to personal information that we process, and we may be required to put in place additional mechanisms and expend additional time and resources to ensure compliance with the EU data protection rules.

Additionally, the UK's decision to leave the EU, often referred to as Brexit, and ongoing developments in the UK have created uncertainty regarding data protection regulation in the UK. Following December 31, 2020, and the expiry of transitional arrangements between the UK and EU, the data protection obligations of the GDPR continue

to apply to UK-related processing of personal data in substantially unvaried form under the so-called "UK GDPR" (i.e., the GDPR as it continues to form part of UK law by virtue of section 3 of the EU (Withdrawal) Act 2018, as amended). However, going forward, there is increasing risk for divergence in application, interpretation and enforcement of the data protection laws as between the UK and the rest of Europe. While the European Commission did adopt on June 28, 2021, an adequacy decision for the UK to allow personal data to flow freely from the EU to the UK, the longer term relationship between the UK and the EEA in relation to certain aspects of data protection law remains uncertain.

In addition, European data protection laws prohibit the transfer of personal information to countries outside of the European Economic Area ("EEA"), UK, and Switzerland, such as the United States, which are not considered by the European Commission to provide an adequate level of data protection. Switzerland has adopted similar restrictions. Although there are legal mechanisms to allow for the transfer of personal information from the EEA, UK, and Switzerland to the United States and other countries, they are or may become subject to legal challenges that, if successful, could invalidate these mechanisms, restrict our ability to process personal information of Europeans outside of Europe and adversely impact our business. For example, in July 2020, the European Court of Justice invalidated the EU-U.S. Privacy Shield in a decision that also cast doubt on the validity of the Standard Contractual Clauses, the primary alternative to Privacy Shield. The decision has led to uncertainty regarding the mechanisms for data transfers from Europe to the United States. We may need to implement additional safeguards to further enhance the security of data transferred out of the Europe, which could increase our compliance costs, expose us to further regulatory scrutiny and liability, and adversely affect our business. For example, on June 4, 2021, the European Commission adopted new Standard Contractual Clauses, which impose on companies additional obligations relating to data transfers, including the obligation to conduct a transfer impact assessment and, depending on a party's role in the transfer, to implement additional security measures and to update internal privacy practices. If we elect to rely on the new Standard Contractual Clauses for data transfers, we may be required to incur significant time and resources to update our contractual arrangements and to comply with new obligations. Additionally, other countries (e.g., Australia and Japan) have adopted certain legal requirements for cross-border transfers of personal information. These obligations may be interpreted and applied in a manner that is inconsistent from one jurisdiction to another and may conflict with other requirements or our practices.

Some countries also are considering or have passed legislation requiring local storage and processing of data, or similar requirements, which could increase the cost and complexity of our business operations. For example, Brazil recently enacted the General Data Protection Law (Lei Geral de Proteção de Dados Pessoais or LGPD) (Law No. 13,709/2018), which broadly regulates the processing of personal information and imposes compliance obligations and penalties comparable to those of the GDPR. To comply with storage and processing requirements and as supervisory authorities continue to issue further guidance, we may need to implement additional safeguards to further enhance the security of data transferred out of Europe. We could suffer additional costs, complaints, or regulatory investigations or fines, and, if we are otherwise unable to transfer personal information between and among countries and regions in which we operate, it could affect the manner in which we provide our products and services, the geographical location or segregation of our relevant systems and operations, and could adversely affect our financial results.

We are or may become subject to the terms of external and internal policies, representations, certifications, publications related to privacy, data protection, and data security.

Compliance with domestic and foreign privacy, data protection, and data security laws, regulations, standards, and contractual and other obligations could require us to take on more onerous obligations in our contracts, restrict our ability to collect, use and disclose data, or in some cases, impact our ability to operate in certain jurisdictions. The actual or perceived failure to comply with our obligations related to privacy, data protection, and data security could result in government enforcement actions (which could include civil, criminal, and administrative penalties), private litigation and/or adverse publicity and could negatively affect our operating results and business.

If we do not comply with laws regulating the protection of the environment and health and human safety, our business could be affected adversely.

Our research and development involves the use of hazardous chemicals and materials, including radioactive materials. We maintain quantities of various flammable and toxic chemicals in our facilities in South San Francisco, California that are required for our research and development activities. We are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of these hazardous chemicals and materials. We believe our procedures for storing, handling and disposing these materials in our facilities comply

with the relevant guidelines of South San Francisco, California. Although we believe that our safety procedures for handling and disposing of these materials comply with the standards mandated by applicable regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. If an accident occurs, we could be held liable for resulting damages, which could be substantial. We are also subject to numerous environmental, health and workplace safety laws and regulations, including those governing laboratory procedures, exposure to blood-borne pathogens and the handling of animals and biohazardous materials. Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of these materials, this insurance may not provide adequate coverage against potential liabilities. We may incur substantial costs to comply with, and substantial fines or penalties if we violate, any of these laws or regulations.

Unfavorable global economic conditions could adversely affect our business, financial condition, stock price and results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. For example, the global financial crisis of 2007-2008 caused extreme volatility and disruptions in the capital and credit markets. Similarly, the volatility associated with the COVID-19 pandemic caused significant instability and disruptions in the capital and credit markets and, in recent months, the global economy has been impacted by increasing interest rates and inflation, as well as the possibility of a recession or further economic downturn. Likewise, the capital and credit markets may be adversely affected by the recent conflict between Russia and Ukraine, and the possibility of a wider European or global conflict, global sanctions imposed in response thereto or an energy crisis. A severe or prolonged economic downturn, such as the global financial crisis, could result in a variety of risks to our business, including a decrease in the demand for our drug candidates and in our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy also could strain our suppliers, possibly resulting in supply disruption, or cause our customers to delay making payments for our services. We cannot anticipate all of the ways in which the foregoing, and the current economic climate and financial market conditions generally, could adversely impact our business. For instance, we are aware of the closure of SVB and appointment of the Federal Deposit Insurance Corporation (the "FDIC") as receiver on March 10, 2023. As of March 13, 2023 we maintained approximately 1% of total current cash, cash equivalents and marketable securities in deposit accounts at SVB. On March 12, 2023, the FDIC announced that all depositors of the bank would have access to all funds starting on March 13, 2023. The remainder of our cash, cash equivalents and marketable securities resides in a custodial account held by US Bank for which SVB Asset Management is the advisor. We do not believe the investments in this custodial account are directly exposed to risk of loss as a result of the insolvency of SVB. Furthermore, our stock price may decline due in part to the volatility of the stock market and any general economic downturn.

Our current operations are concentrated in one location, and we or the third parties upon whom we depend may be adversely affected by a wildfire and earthquake or other natural disasters and our business continuity and disaster recovery plans may not adequately protect us from a serious disaster.

Our current operations are located in our facilities in South San Francisco, California. Any unplanned event, such as flood, wildfire, explosion, earthquake, extreme weather condition, medical epidemic including the COVID-19 pandemic, power shortage, telecommunication failure or other natural or manmade accidents or incidents that result in us being unable to fully utilize our facilities, or the manufacturing facilities of our third-party contract manufacturers, may have a material and adverse effect on our ability to operate our business, particularly on a daily basis, and have significant negative consequences on our financial and operating conditions. For example, our operations are concentrated primarily on the west coast of the United States, and any adverse weather event or natural disaster, such as an earthquake, tsunami or wildfire, could have a material adverse effect on a substantial portion of our operations. Loss of access to these facilities may result in increased costs, delays in the development of our therapeutic candidates or interruption of our business operations. Extreme weather conditions or other natural disasters could further disrupt our operations and have a material and adverse effect on our business, financial condition, results of operations and prospects. If a natural disaster, power outage or other event occurred that prevented us from using all or a significant portion of our headquarters, that damaged critical infrastructure, such as our research facilities or the manufacturing facilities of our third-party contract manufacturers, or that otherwise disrupted operations, it may be difficult or, in certain cases, impossible, for us to continue our business for a substantial period of time. The disaster recovery and business continuity plans we have in place may prove inadequate in the event of a serious disaster or similar event. We may incur substantial expenses as a result of the limited nature of our disaster recovery and business continuity plans, which could have a material adverse effect on our business. In addition, the long-term effects of climate change on general economic conditions and the

pharmaceutical industry in particular are unclear and may heighten or intensify existing risk of natural disasters. As part of our risk management policy, we maintain insurance coverage at levels that we believe are appropriate for our business. However, in the event of an accident or incident at these facilities, we cannot assure you that the amounts of insurance will be sufficient to satisfy any damages and losses. If our facilities, or the manufacturing facilities of our third-party contract manufacturers, are unable to operate because of an accident or incident or for any other reason, even for a short period of time, any or all of our research and development programs may be harmed. Any business interruption could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Our ability to utilize our net operating loss carryforwards and certain other tax attributes may be limited.

As of December 31, 2022, we had net operating loss carryforwards for federal and California income tax purposes of $77.4 million and $15.7 million, respectively. The federal net operating losses will not be subject to expiration and the California net operating losses begin to expire in 2038. As of December 31, 2022, we also had available tax credit carryforwards for federal and California income tax purposes of $3.5 million and $2.2 million, respectively. The federal tax credits begin to expire in 2038 and the California tax credits will not be subject to expiration. To the extent that our taxable income exceeds any current year operating losses, we plan to use our carryforwards to offset income that would otherwise be taxable. Under the Tax Cuts and Jobs Act of 2017 (as modified by the Coronavirus Aid Relief and Economic Security Act of 2021), federal net operating losses generated after December 31, 2017 will not be subject to expiration. However, utilization of carryforwards generated in tax years beginning after December 31, 2017 are limited to a maximum of 80% of the taxable income for such year determined without regard to such carryforwards. Also, for state income tax purposes, the extent to which states will conform to the federal laws is uncertain and there may be periods during which the use of NOL carryforwards is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed. For example, California imposed limits on the usability of California state NOLs and tax credits in tax years beginning after 2019 and before 2022. In addition, under Section 382 of the Code, changes in our ownership may limit the amount of our net operating loss carryforwards and tax credit carryforwards that could be utilized annually to offset our future taxable income, if any. This limitation would generally apply in the event of a cumulative change in ownership of our company of more than 50% within a three-year period. We have not performed an analysis to determine whether there has been an ownership change pursuant to Section 382. Any such limitation may significantly reduce our ability to utilize our net operating loss carryforwards and tax credit carryforwards before they expire. Various transactions that have occurred since our inception may trigger such an ownership change pursuant to Section 382. Any such limitation, whether as the result of prior offerings of securities, future sales of our common stock by our existing stockholders or additional sales of our common stock by us, could have a material adverse effect on our results of operations in future years.

Risks Related to Intellectual Property

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

We rely upon a combination of patents, know-how and confidentiality agreements to protect the intellectual property related to our therapeutics and technologies and to prevent third parties from copying and surpassing our achievements, thus eroding our competitive position in our market.

Our success depends in large part on our ability to obtain and maintain patent protection for our therapeutic candidates and their uses, as well as our ability to operate without infringing the proprietary rights of others. We seek to protect our proprietary position by filing patent applications in the United States and abroad related to our novel discoveries and technologies that are important to our business. Our pending and future patent applications may not result in patents being issued or that issued patents will afford sufficient protection of our therapeutic candidates or their intended uses against competitors, nor can there be any assurance that the patents issued will not be infringed, designed around, invalidated by third parties, or effectively prevent others from commercializing competitive technologies, products or therapeutic candidates.

Obtaining and enforcing patents is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications or maintain and/or enforce patents that may issue based on our patent applications, at a reasonable cost or in a timely manner, including delays as a result of the COVID-19 pandemic

impacting our or our licensors' operations. It is also possible that we will fail to identify patentable aspects of our research and development results before it is too late to obtain patent protection. Although we enter into non-disclosure and confidentiality agreements with parties who have access to patentable aspects of our research and development output, such as our employees, corporate collaborators, outside scientific collaborators, contract research organizations, contract manufacturers, consultants, advisors and other third parties, any of these parties may breach these agreements and disclose such results before a patent application is filed, thereby jeopardizing our ability to seek patent protection.

Composition of matter patents for biological and pharmaceutical therapeutic candidates often provide a strong form of intellectual property protection for those types of products, as such patents provide protection without regard to any method of use. We cannot be certain that the claims in our pending patent applications directed to composition of matter of our therapeutic candidates will be considered patentable by the United States Patent and Trademark Office ("USPTO") or by patent offices in foreign countries, or that the claims in any of our issued patents will be considered valid and enforceable by courts in the United States or foreign countries. Method of use patents protect the use of a product for the specified method. This type of patent does not prevent a competitor from making and marketing a product that is identical to our therapeutics for an indication that is outside the scope of the patented method. Moreover, even if competitors do not actively promote their product for our targeted indications, clinicians may prescribe these products "off-label." Although off-label prescriptions may infringe or contribute to the infringement of method of use patents, the practice is common and such infringement is difficult to prevent or prosecute.

The patent position of biopharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation, resulting in court decisions, including Supreme Court decisions, which have increased uncertainties as to the ability to enforce patent rights in the future. In addition, the laws of foreign countries may not protect our rights to the same extent as the laws of the United States, or vice versa.

The patent application process is subject to numerous risks and uncertainties, and there can be no assurance that we will be successful in protecting our therapeutic candidates by obtaining and defending patents. For example, we may not be aware of all third-party intellectual property rights potentially relating to our therapeutic candidates or their intended uses, and as a result the impact of such third-party intellectual property rights upon the patentability of our own patents and patent applications, as well as the impact of such third-party intellectual property upon our freedom to operate, is highly uncertain. 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 know with certainty whether we were the first to make the inventions claimed in our patents or pending patent applications, or that we were the first to file for patent protection of such inventions. As a result, the issuance, inventorship, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our pending patent applications may be challenged in patent offices in the United States and abroad. Even issued patents may later be found invalid or unenforceable or may be modified or revoked in proceedings instituted by third parties before various patent offices or in courts. For example, our pending patent applications may be subject to third-party pre-issuance submissions of prior art to the USPTO or our issued patents may be subject to post-grant review ("PGR") proceedings, oppositions, derivations, reexaminations, or inter partes review ("IPR") proceedings, in the United States or elsewhere, challenging our patent rights or the patent rights of others. An adverse determination in any such challenges may result in loss of exclusivity or in patent claims being narrowed, invalidated, or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. In addition, given the amount of time required for the development, testing and regulatory review of new therapeutic candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. The degree of future protection for our proprietary rights is uncertain. Only limited protection may be available and may not adequately protect our rights or permit us to gain or keep any competitive advantage. Any failure to obtain or maintain patent protection with respect to our therapeutic candidates or their uses could have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition to the protection afforded by patents, we rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable, processes for which patents are difficult to enforce and any other elements of our discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents. We may also rely on trade secret protection as temporary protection for concepts that may be included in a future patent filing. However, trade secret protection will not protect us from

innovations that a competitor develops independently of our proprietary know how. If a competitor independently develops a technology that we protect as a trade secret and files a patent application on that technology, then we may not be able to patent that technology in the future, may require a license from the competitor to use our own know-how, and if the license is not available on commercially-viable terms, then we may not be able to launch our therapeutic. Although we require all of our employees to assign their inventions to us, and require all of our employees, consultants, advisors and any third parties who have access to our proprietary know-how, information or technology to enter into confidentiality agreements, we cannot be certain that our trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Furthermore, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. If we are unable to prevent unauthorized material disclosure of our intellectual property to third parties, we will not be able to establish or maintain a competitive advantage in our market, and this scenario could materially adversely affect our business, financial condition and results of operations.

We cannot ensure that patent rights relating to inventions described and claimed in our pending patent applications will issue or that patents based on our patent applications will not be challenged and rendered invalid and/or unenforceable.

The patent application process is subject to numerous risks and uncertainties, and there can be no assurance that we or any of our potential future collaborators will be successful in protecting our therapeutic candidates by obtaining and defending patents. We have pending U.S. and foreign patent applications in our portfolio covering our therapeutic programs. We cannot predict:

- if and when patents may issue based on our patent applications;
- the scope of protection of any patent issuing based on our patent applications;
- whether the claims of any patent issuing based on our patent applications will provide protection against competitors;
- whether or not third parties will find ways to invalidate or circumvent our patent rights;
- whether or not others will obtain patents claiming aspects similar to those covered by our patents and patent applications;
- whether we will need to initiate litigation or administrative proceedings to enforce and/or defend our patent rights which will be costly whether we win or lose;
- whether the patent applications that we own will result in issued patents with claims that cover our therapeutic candidates or uses thereof in the United States or in other foreign countries; and
- whether prosecution of our patent filings covering our therapeutic candidates will experience delays or interruptions at the patent office due to the COVID-19 pandemic.

We cannot be certain that the claims in our pending patent applications directed to our therapeutic candidates and/or technologies will be considered patentable by the USPTO or by patent offices in foreign countries. There can be no assurance that any such patent applications will issue as granted patents. One aspect of the determination of patentability of our inventions depends on the scope and content of the "prior art," information that was or is deemed available to a person of skill in the relevant art prior to the priority date of the claimed invention. There may be prior art of which we are not aware that may affect the patentability of our patent claims or, if issued, affect the validity or enforceability of a patent claim. Even if the patents do issue based on our patent applications, third parties may challenge the validity, enforceability or scope thereof, which may result in such patents being narrowed, invalidated or held unenforceable. Furthermore, even if they are unchallenged, patents in our portfolio may not adequately exclude third parties from practicing relevant technology or prevent others from designing around our claims. If the breadth or strength of our intellectual property position with respect to our therapeutic candidates is threatened, it could dissuade companies from collaborating with us to develop and threaten our ability to commercialize our therapeutic candidates. In the event of litigation or administrative proceedings, we cannot be certain that the claims in any of our issued patents will be considered valid by courts in the United States or foreign countries.

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

Patents are of national or regional effect. Filing, prosecuting and defending patents on all of our research programs and therapeutic candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in 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 inventions in and into the United States or other jurisdictions. Competitors may use our technologies 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 competitor products may compete with our therapeutic candidates, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Geo-political actions in the United States and in foreign countries could increase the uncertainties and costs surrounding the prosecution or maintenance of our patent applications or those of any current or future licensors and the maintenance, enforcement or defense of our issued patents or those of any current or future licensors. For example, the United States and foreign government actions related to Russia's invasion of Ukraine may limit or prevent filing, prosecution and maintenance of patent applications in Russia. Government actions may also prevent maintenance of issued patents in Russia. These actions could result in abandonment or lapse of our patents or patent applications, resulting in partial or complete loss of patent rights in Russia. If such an event were to occur, it could have a material adverse effect on our business. In addition, a decree was adopted by the Russian government in March 2022, allowing Russian companies and individuals to exploit inventions owned by patentees that have citizenship or nationality in, are registered in, or have predominately primary place of business or profit-making activities in the United States and other countries that Russia has deemed unfriendly without consent or compensation. Consequently, we would not be able to prevent third parties from practicing our inventions in Russia or from selling or importing products made using our inventions in and into Russia. Accordingly, our competitive position may be impaired, and our business, financial condition, results of operations and prospects may be adversely affected.

Various companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of many countries do not favor the enforcement of patents and other intellectual property protection, particularly those relating to pharmaceuticals, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights.

Various countries outside the United States 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. As a result, a patent owner may have limited remedies in certain circumstances, 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. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Further, the standards applied by the USPTO and foreign patent offices in granting patents are not always applied uniformly or predictably. As such, we do not know the degree of future protection that we will have on our technologies, products and therapeutic candidates. While we will endeavor to try to protect our technologies, products and therapeutic candidates with intellectual property rights such as patents, as appropriate, the process of obtaining patents is time consuming, expensive and unpredictable.

No earlier than October 1, 2022, European applications will soon have the option, upon grant of a patent, of becoming a Unitary Patent which will be subject to the jurisdiction of the Unitary Patent Court ("UPC"). This will be a significant change in European patent practice. As the UPC is a new court system, there is no precedent for the court, increasing the uncertainty of any litigation.

Intellectual property rights do not necessarily address all potential threats to our competitive advantage.

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 therapeutic candidates that are similar to ours but that are not covered by the pending patent applications that we own;
- we or our licensors or future collaborators might not have been the first to make the inventions covered by the pending patent application that we own or have exclusively licensed;
- we or our licensors or future collaborators might not have been the first to file patent applications covering certain of 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 noncompliance with the USPTO and foreign governmental patent agencies requirement for a number of procedural, documentary, fee payment and other provisions during the patent process can result in abandonment or lapse of a patent or patent application, and partial or complete loss of patent rights in the relevant jurisdiction;
- it is possible that our pending patent applications will not lead to issued patents;
- issued patents, if any arise in the future, that we either own or have exclusively licensed may be revoked, modified, or held invalid or unenforceable, as a result of legal challenges by our competitors;
- our competitors 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 cannot predict the scope of protection of any patent issuing based on our patent applications, including whether the patent applications that we own or, in the future, in-license will result in issued patents with claims that directed to our therapeutic candidates or uses thereof in the United States or in other foreign countries;
- there may be significant pressure on the U.S. government and international governmental bodies to limit the scope of patent protection both inside and outside the United States for disease treatments that prove successful, as a matter of public policy regarding worldwide health concerns;
- countries other than the United States may have patent laws less favorable to patentees than those upheld by U.S. courts, allowing foreign competitors a better opportunity to create, develop and market competing therapeutic candidates;
- the claims of any patent issuing based on our patent applications may not provide protection against competitors or any competitive advantages, or may be challenged by third parties;
- if enforced, a court may not hold that our patents, if they issue in the future, are valid, enforceable and infringed;
- we may need to initiate litigation or administrative proceedings to enforce and/or defend our patent rights which will be costly whether we win or lose;
- we may choose not to file a patent application in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent application covering such intellectual property;
- we may fail to adequately protect and police our trademarks and trade secrets; and
- the patents of others may have an adverse effect on our business, including if others obtain patents claiming subject matter similar to or improving that covered by our patent applications.

Should any of these or similar events occur, they could significantly harm our business, 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 therapeutics.

As the biopharmaceutical industry expands and more patents are issued, the risk increases that our therapeutic candidates may be subject to claims of infringement of the patent rights of third parties. There can be no assurance that our operations do not, or will not in the future, infringe existing or future third-party patents. Identification of third-party patent rights that may be relevant to our operations is difficult because patent searching is imperfect due to differences in terminology among patents, incomplete databases and the difficulty in assessing the meaning of patent claims. 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 application in the United States and abroad that is relevant to or necessary for the commercialization of our therapeutic candidates in any jurisdiction.

Numerous U.S. and foreign patents and pending patent applications exist in our market that are owned by third parties. Our competitors in both the United States and abroad, many of which have substantially greater resources and have made substantial investments in patent portfolios and competing technologies, may have applied for or obtained or may in the future apply for and obtain, patents that will prevent, limit or otherwise interfere with our ability to make, use and sell our therapeutics. We do not always conduct independent reviews of pending patent applications of and patents issued to third parties. Patent applications in the United States and elsewhere are typically published approximately 18 months after the earliest filing for which priority is claimed, with such earliest filing date being commonly referred to as the priority date. Certain U.S. applications that will not be filed outside the U.S. can remain confidential until patents issue. In addition, patent applications in the United States and elsewhere can be pending for many years before issuance, or unintentionally abandoned patents or applications can be revived. Furthermore, pending patent applications that have been published can, subject to certain limitations, be later amended in a manner that could cover our technologies, our therapeutics or the use of our therapeutics. As such, there may be applications of others now pending or recently revived patents of which we are unaware. These patent applications may later result in issued patents, or the revival of previously abandoned patents, that will prevent, limit or otherwise interfere with our ability to make, use or sell our therapeutics.

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 application may be incorrect. For example, we may incorrectly determine that our therapeutics are not covered by a third-party patent or may incorrectly predict whether a third-party's pending 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. Our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our therapeutics.

We cannot provide any assurances that third-party patents do not exist which might be enforced against our current technology, including our research programs, therapeutic candidates, their respective methods of use, manufacture and formulations thereof, and could result in either an injunction prohibiting our manufacture or future sales, or, with respect to our future sales, an obligation on our part to pay royalties and/or other forms of compensation to third parties, which could be significant.

We may not be successful in obtaining or maintaining necessary rights to our therapeutic candidates through acquisitions and in-licenses.

Because our development programs may in the future require the use of proprietary rights held by third parties, the growth of our business may depend in part on our ability to acquire, in-license, or use these third-party proprietary rights. 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 for our therapeutic candidates. The licensing and acquisition of third-party intellectual property rights is a competitive area, and a number of more established companies may pursue strategies to license or acquire third-party intellectual property rights that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, capital 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. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment or at all. If we are unable to successfully obtain rights to required third-party intellectual property rights or maintain the existing intellectual property rights we have, we may have to abandon development of the

relevant program or therapeutic candidate, which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

While we normally seek to obtain the right to control prosecution, maintenance and enforcement of the patents relating to our therapeutic candidates, there may be times when the filing and prosecution activities for patents and patent applications relating to our therapeutic candidates are controlled by our future licensors or collaboration partners. If any of our future licensors or collaboration partners fail to prosecute, maintain and enforce such patents and patent applications in a manner consistent with the best interests of our business, including by payment of all applicable fees for patents covering our therapeutic candidates, we could lose our rights to the intellectual property or our exclusivity with respect to those rights, our ability to develop and commercialize those therapeutic candidates may be adversely affected and we may not be able to prevent competitors from making, using and selling competing products. In addition, even where we have the right to control patent prosecution of patents and patent applications we have licensed to and from third parties, we may still be adversely affected or prejudiced by actions or inactions of our licensees, our future licensors and their counsel that took place prior to the date upon which we assumed control over patent prosecution.

We may enter into license agreements in the future with others to advance our existing or future research or allow commercialization of our existing or future therapeutic candidates. These licenses may not provide exclusive rights to use such intellectual property and technology in all relevant fields of use and in all territories in which we may wish to develop or commercialize our technology and therapeutics in the future.

In addition, subject to the terms of any such license agreements, we may not have the right to control the preparation, filing, prosecution, maintenance, enforcement, and defense of patents and patent applications covering the technology that we license from third parties. In such an event, we cannot be certain that these patents and patent applications will be prepared, filed, prosecuted, maintained, enforced, and defended in a manner consistent with the best interests of our business. If our future licensors fail to prosecute, maintain, enforce, and defend such patents or patent applications, or lose rights to those patents or patent applications, the rights we have licensed may be reduced or eliminated, and our right to develop and commercialize any of our future therapeutic candidates that are subject of such licensed rights could be adversely affected.

Our future licensors may rely on third-party consultants or collaborators or on funds from third parties such that our future licensors are not the sole and exclusive owners of the patents we in-license. If other third parties have ownership rights to our future in-licensed patents, they may be able to license such patents to our competitors, and our competitors could market competing products and technology. This could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

It is possible that we may be unable to obtain licenses at a reasonable cost or on reasonable terms, if at all. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. In that event, we may be required to expend significant time and resources to redesign our technology, therapeutic candidates, or the methods for manufacturing them or to develop or license replacement technology, all of which may not be feasible on a technical or commercial basis. If we are unable to do so, we may be unable to develop or commercialize the affected therapeutic candidates, which could harm our business, financial condition, results of operations, and prospects significantly. We cannot provide any assurances that third-party patents do not exist which might be enforced against our current technology, manufacturing methods, therapeutic candidates, or future methods or products resulting in either an injunction prohibiting our manufacture or future sales, or, with respect to our future sales, an obligation on our part to pay royalties and/or other forms of compensation to third parties, which could be significant.

Disputes may arise between us and our future licensors regarding intellectual property subject to a license agreement, including:

- 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 patents and other rights to third parties;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;

- our right to transfer or assign the license;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our future licensors and us and our partners; and
- the priority of invention of patented technology.

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 intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations, and prospects. Moreover, if disputes over intellectual property that we license in the future prevent or impair our ability to maintain our licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected therapeutic candidates, which could have a material adverse effect on our business, financial conditions, results of operations, and prospects.

In spite of our best efforts, our future licensors might conclude that we materially breached our license agreements and might therefore terminate the license agreements, thereby removing our ability to develop and commercialize therapeutics and technology covered by these license agreements. If these in-licenses are terminated, or if the underlying patents fail to provide the intended exclusivity, competitors would have the freedom to seek regulatory approval of, and to market, therapeutics identical to ours. This could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

From time to time, we may be required to license technologies relating to our therapeutic research programs from additional third parties to further develop or commercialize our therapeutic candidates. Should we be required to obtain licenses to any third-party technology, including any such patents required to manufacture, use or sell our therapeutic candidates, such licenses may not be available to us on commercially reasonable terms, or at all. The inability to obtain any third-party license required to develop or commercialize any of our therapeutic candidates could cause us to abandon any related efforts, which could seriously harm our business and operations.

Any future collaborations that we enter into may not be successful. The success of our collaboration arrangements will depend heavily on the efforts and activities of our collaborators. Collaborations are subject to numerous risks, which may include that:

- collaborators have significant discretion in determining the efforts and resources that they will apply to collaborations;
- collaborators may not pursue development and commercialization of our therapeutics or may elect not to continue or renew development or commercialization programs based on trial or test results, changes in their strategic focus due to the acquisition of competitive products, availability of funding or other external factors, such as a business combination that diverts resources or creates competing priorities, or the ongoing COVID-19 pandemic;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our therapeutic candidates;
- a collaborator with marketing, manufacturing and distribution rights to one or more products may not commit sufficient resources to or otherwise not perform satisfactorily in carrying out these activities;
- we could grant exclusive rights to our collaborators that would prevent us from collaborating with others;
- collaborators may not properly maintain or defend our intellectual property rights or may use our intellectual property or proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential liability;
- disputes may arise between us and a collaborator that causes the delay or termination of the research, development or commercialization of our future therapeutic candidates or that results in costly litigation or arbitration that diverts management attention and resources;

- collaborations may be terminated, and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable future therapeutic candidates;
- collaborators may own or co-own intellectual property covering our therapeutics that results from our collaborating with them, and in such cases, we would not have the exclusive right to develop or commercialize such intellectual property; and
- a collaborator's sales and marketing activities or other operations may not be in compliance with applicable laws resulting in civil or criminal proceedings.

Our technology licensed from various third parties may be subject to retained rights.

Our future licensors may retain certain rights under the relevant agreements with us, including the right to use the underlying technology for noncommercial academic and research use, to publish general scientific findings from research related to the technology, and to make customary scientific and scholarly disclosures of information relating to the technology. It is difficult to monitor whether our licensors limit their use of the technology to these uses, and we could incur substantial expenses to enforce our rights to our licensed technology in the event of misuse.

In addition, the United States federal government retains certain rights in inventions produced with its financial assistance under the Patent and Trademark Law Amendments Act ("Bayh-Dole Act"). The federal government retains a "nonexclusive, nontransferable, irrevocable, paid-up license" for its own benefit. The Bayh-Dole Act also provides federal agencies with "march-in rights." March-in rights allow the government, in specified circumstances, to require the contractor or successors in title to the patent to grant a "nonexclusive, partially exclusive, or exclusive license" to a "responsible applicant or applicants." If the patent owner refuses to do so, the government may grant the license itself. We sometimes collaborate with academic institutions to accelerate our preclinical research or development. While it is our policy to avoid engaging university partners in projects in which there is a risk that federal funds may be commingled, we cannot be sure that any co-developed intellectual property will be free from government rights pursuant to the Bayh-Dole Act. If, in the future, we co-own or license in technology which is critical to our business that is developed in whole or in part with federal funds subject to the Bayh-Dole Act, our ability to enforce or otherwise exploit patents covering such technology may be adversely affected.

If we are sued for infringing intellectual property rights of third parties, such litigation could be costly and time consuming and could prevent or delay us from developing or commercializing our therapeutic candidates.

Our commercial success depends, in part, on our ability to develop, manufacture, market and sell our therapeutic candidates without infringing the intellectual property and other proprietary rights of third parties. Third parties may allege that we have infringed or misappropriated their intellectual property. Litigation or other legal proceedings relating to intellectual property claims, with or without merit, is unpredictable and generally expensive and time consuming and, even if resolved in our favor, is likely to divert significant resources from our core business, including distracting our technical and management 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 market 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 adequately conduct such litigation or proceedings. 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.

There is a substantial amount of intellectual property litigation in the biotechnology and pharmaceutical industries, and we may become party to, or threatened with, litigation or other adversarial proceedings regarding intellectual property rights with respect to our therapeutic candidates. We cannot be certain that our therapeutic candidates and other proprietary technologies we may develop will not infringe existing or future patents owned by third parties. Third parties may assert infringement claims against us based on existing or future intellectual property rights. In the United States, proving invalidity in court requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents. If we are found to infringe a third party's intellectual property rights, we could be forced, including by court order, to cease developing, manufacturing or commercializing the infringing therapeutic candidate or therapeutic. Alternatively, we may be required to obtain a license from such third party in order to use the infringing technology and continue developing, manufacturing or marketing the infringing

therapeutic candidate or therapeutic. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent. A finding of infringement could prevent us from commercializing our investigational products or force us to cease some of our business operations, which could materially harm our business.

We may not be aware of patents that have already been issued and that a third party, for example, a competitor in the fields in which we are developing our therapeutic candidates, might assert are infringed by our future therapeutic candidates, including claims to compositions, formulations, methods of manufacture or methods of use or treatment that cover our therapeutic candidates. It is also possible that patents owned by third parties of which we are aware, but which we do not believe are relevant to our therapeutic candidates and other proprietary technologies we may develop, could be found to be infringed by our therapeutic candidate. 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 our therapeutic candidates may infringe. Our competitors in both the United States and abroad, many of which have substantially greater resources and have made substantial investments in patent portfolios and competing technologies, may have applied for or obtained or may in the future apply for and obtain, patents that will prevent, limit or otherwise interfere with our ability to make, use and sell our therapeutic candidates. The pharmaceutical and biotechnology industries have produced a considerable number of patents, and it may not always be clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. If we were sued for patent infringement, we would need to demonstrate that our therapeutic candidates, products or methods either do not infringe the patent claims of the relevant patent or that the patent claims are invalid or unenforceable, and we may not be able to do this. Proving invalidity may be difficult. For example, in the United States, proving invalidity in court requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents, and there is no assurance that a court of competent jurisdiction would invalidate the claims of any such U.S. patent. Even if we are successful in these proceedings, we may incur substantial costs and the time and attention of our management and scientific personnel could be diverted in pursuing these proceedings, which could have a material adverse effect on our business and operations. 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 litigation. In addition, we may not have sufficient resources to bring these actions to a successful conclusion.

We may choose to challenge the enforceability or validity of claims in a third party's U.S. patent by requesting that the USPTO review the patent claims in an ex-parte re-exam, IPR or PGR proceedings. These proceedings are expensive and may consume our time or other resources. We may choose to challenge a third party's patent in patent opposition proceedings in the EPO, or other foreign patent office. The costs of these opposition proceedings could be substantial, and may consume our time or other resources. If we fail to obtain a favorable result at the USPTO, EPO or other patent office then we may be exposed to litigation by a third party alleging that the patent may be infringed by our therapeutic candidates or proprietary technologies.

If we are found to infringe a third-party's intellectual property rights, we could be forced, including by court order, to cease developing, manufacturing or commercializing the infringing therapeutic candidate or product. Alternatively, we may be required to obtain a license from such third-party in order to use the infringing technology and continue developing, manufacturing or marketing the infringing therapeutic candidate. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent. A finding of infringement could prevent us from commercializing our therapeutic candidates or force us to cease some of our business operations, and could divert the time and attention of our technical personnel and management, cause development delays, and/or require us to develop non-infringing technology, which may not be possible on a cost-effective basis, any of which could materially harm our business. In the event of a successful claim of infringement against us, we may have to pay substantial monetary damages, including treble damages and attorneys' fees for willful infringement, pay royalties and other fees, redesign our infringing drug or obtain one or more licenses from third parties, which may be impossible or require substantial time and monetary expenditure. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business.

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

Competitors or other third parties may infringe our future patents, trademarks or other intellectual property. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time consuming and divert the time and attention of our management and scientific personnel. Our pending patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent issues from such applications. Any claims we assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringe their patents, in addition to counterclaims asserting that our patents are invalid or unenforceable, or both. In patent litigation in the United States, defendant counterclaims alleging invalidity and/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 or insufficient written description. 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. The outcome following legal assertions of invalidity and unenforceability is unpredictable. In any patent infringement proceeding, there is a risk that a court will decide that a patent of ours is invalid or unenforceable, in whole or in part, and that we do not have the right to stop the other party from using the invention at issue. There is also a risk that, even if the validity of such patents is upheld, the court will construe the patent's claims narrowly or decide that we do not have the right to stop the other party from using the invention at issue on the grounds that our patent claims do not cover the invention, or decide that the other party's use of our future patented technology falls under the safe harbor to patent infringement under 35 U.S.C. §271(e)(1). An adverse outcome in a litigation or proceeding involving our patents could limit our ability to assert our patents against those parties or other competitors and may curtail or preclude our ability to exclude third parties from making and selling similar or competitive products. Any of these occurrences could adversely affect our competitive business position, business prospects and financial condition. Similarly, if we assert trademark infringement claims, a court may determine that the marks we have asserted are invalid or unenforceable, or that the party against whom we have asserted trademark infringement has superior rights to the marks in question. In this case, we could ultimately be forced to cease use of such trademarks.

Even if we establish infringement, the court may decide not to grant an injunction against further infringing activity and instead award only monetary damages, which may or may not be an adequate remedy. 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 litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of shares of our common stock. Moreover, we cannot assure you that we will have sufficient financial or other resources to file and pursue such infringement claims, which typically last for years before they are concluded. Even if we ultimately prevail in such claims, the monetary cost of such litigation and the diversion of the attention of our management and scientific personnel could outweigh any benefit we receive as a result of the proceedings.

Because of the expense and uncertainty of litigation, we may not be in a position to enforce our intellectual property rights against third parties.

Because of the expense and uncertainty of litigation, we may conclude that even if a third-party is infringing any patents that may be issued as a result of our pending or future patent applications or other intellectual property rights, the risk-adjusted cost of bringing and enforcing such a claim or action may be too high or not in the best interest of our company or our stockholders, or it may be otherwise impractical or undesirable to enforce our intellectual property against some third parties. Our competitors or other third parties may be able to sustain the costs of complex patent litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. In such cases, we may decide that the more prudent course of action is to simply monitor the situation or initiate or seek some other non-litigious action or solution. In addition, the uncertainties associated with litigation could compromise our ability to raise the funds necessary to continue our clinical trials, continue our internal research programs, in-license needed technology or other therapeutic candidates, or enter into development partnerships that would help us bring our therapeutic candidates to market.

We may be subject to claims that we have wrongfully hired an employee from a competitor or that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties.

As is common in the pharmaceutical industry, in addition to our employees, we engage the services of consultants to assist us in the development of our therapeutic candidates. Many of these consultants, and many of our employees, were previously employed at, or may have previously provided or may be currently providing consulting services to, other pharmaceutical companies including our competitors or potential competitors. We could in the future be subject to claims that we or our employees have inadvertently or otherwise used or disclosed alleged trade secrets or other confidential information of former employers or competitors. Although we try to ensure that our employees and consultants do not use the intellectual property, proprietary information, know-how or trade secrets of others in their work for us, we may become subject to claims that we caused an employee to breach the terms of his or her non-competition or non-solicitation agreement, or that we or these individuals have, inadvertently or otherwise, used or disclosed the alleged trade secrets or other proprietary information of a former employer or competitor.

While we may litigate to defend ourselves against these claims, even if we are successful, litigation could result in substantial costs and could be a distraction to management. If our defenses to these claims fail, in addition to requiring us to pay monetary damages, a court could prohibit us from using technologies or features that are essential to our therapeutic candidates, if such technologies or features are found to incorporate or be derived from the trade secrets or other proprietary information of the former employers. Moreover, any such litigation or the threat thereof may adversely affect our reputation, our ability to form strategic alliances or sublicense our rights to collaborators, engage with scientific advisors or hire employees or consultants, each of which would have an adverse effect on our business, results of operations and financial condition. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management.

Changes in patent law in the United States and other jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our therapeutic candidates.

As is the case with other biopharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involves both technological and legal complexity and is therefore costly, time consuming and inherently uncertain. Changes in either the patent laws or interpretation of the patent laws in the United States could increase the uncertainties and costs, and may diminish our ability to protect our inventions, 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 future owned and licensed patents. Patent reform legislation in the United States and other countries, including the Leahy-Smith America Invents Act ("Leahy-Smith Act"), signed into law on September 16, 2011, could increase those uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our future issued patents. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, redefine prior art and provide more efficient and cost-effective avenues for competitors to challenge the validity of patents. 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 PGR, IPR, and derivation proceedings.

Further, because of a lower evidentiary standard in these USPTO post-grant 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 patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. Thus, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our future issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

After March 2013, under the Leahy-Smith Act, the United States transitioned to a first inventor to file system in which, assuming that the other statutory requirements 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 we file an application covering the same invention, could therefore be awarded a patent covering an invention of ours even if

we 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 candidates and other proprietary technologies we may develop or (ii) invent any of the inventions claimed in our or our licensor's patents or patent applications. Even where we have a valid and enforceable patent, we may not be able to exclude others from practicing the claimed invention where the other party can show that they used the invention in commerce before our filing date or the other party benefits from a compulsory license. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our future issued patents, 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 pharmaceuticals are particularly uncertain. The U.S. Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. Depending on future actions by the U.S. Congress, the U.S. courts, the USPTO and the relevant law-making bodies in other countries, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents and patents that we might obtain in the future. For example, in the 2013 case Assoc. for Molecular Pathology v. Myriad Genetics, Inc., the U.S. Supreme Court held that certain claims to DNA molecules are not patentable. We cannot predict how future decisions by the courts, the U.S. Congress or the USPTO may impact the value of our patents.

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

Periodic maintenance fees, renewal fees, annuities fees and various other governmental fees on patents and/or patent applications are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent and/or patent application. The USPTO and various foreign governmental patent agencies also require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process and throughout the life of a granted patent. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. If we fail to maintain the patents and patent applications covering our therapeutic candidates, our competitive position would be adversely affected.

We may rely on trade secret and proprietary know-how which can be difficult to trace and enforce and, if we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to seeking patents for some of our technology and therapeutic candidates, we may also rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position. Elements of our therapeutic candidate, including processes for their identification, preparation and manufacture, may involve proprietary know-how, information, or technology that is not covered by patents, and thus for these aspects we may consider trade secrets and know-how to be our primary intellectual property. Any disclosure, either intentional or unintentional, by our employees, the employees of third parties with whom we share our facilities or third-party consultants and vendors that we engage to perform research, clinical trials or manufacturing activities, or misappropriation by third parties (such as through a cybersecurity breach) of our trade secrets or proprietary information could enable competitors to duplicate or surpass our technological achievements, thus eroding our competitive position in our market. Because we expect to rely on third parties in the development and manufacture of our therapeutic candidates, we must, at times, share trade secrets with them. 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.

Trade secrets and know-how can be difficult to protect. We require our employees to enter into written employment agreements containing provisions of confidentiality and obligations to assign to us any inventions generated in the course of their employment. We further seek to protect our potential trade secrets, proprietary know-how, and

information in part, by entering into non-disclosure and confidentiality agreements with parties who are given access to them, such as our corporate collaborators, outside scientific collaborators, contract research organizations, contract manufacturers, consultants, advisors and other third parties. With our consultants, contractors, and outside scientific collaborators, these agreements typically include invention assignment obligations. We cannot guarantee that we have entered into such agreements with each party that may have or has had access to our trade secrets or proprietary technology and processes. We cannot be certain that our trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. 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, difficult to prove and the outcome is unpredictable. In addition, some courts inside and outside the United States may be less willing or unwilling to protect trade secrets. We may need to share our proprietary information, including trade secrets, with future business partners, collaborators, contractors and others located in countries at heightened risk of theft of trade secrets, including through direct intrusion by private parties or foreign actors, and those affiliated with or controlled by state actors. Further, 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 harmed.

We may become subject to claims challenging the inventorship or ownership 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 patents or other intellectual property as an inventor or co-inventor. The failure to name the proper inventors on a patent application can result in the patents issuing thereon being unenforceable. Inventorship disputes may arise from conflicting views regarding the contributions of different individuals named as inventors, the effects of foreign laws where foreign nationals are involved in the development of the subject matter of the patent, conflicting obligations of third parties involved in developing our therapeutic candidates or as a result of questions regarding co-ownership of potential joint inventions. Litigation may be necessary to resolve these and other claims challenging inventorship or ownership. Alternatively, or additionally, we may enter into agreements to clarify the scope of our rights in such 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, valuable intellectual property. 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 management and other employees.

Our current or future licensors may have relied on third-party consultants or collaborators or on funds from third parties, such as the U.S. government, such that our licensors are not the sole and exclusive owners of the patents we in-licensed. If other third parties have ownership rights or other rights to our in-licensed patents, they may be able to license such patents to our competitors, and our competitors could market competing products and technology. This could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

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.

Patent terms may be inadequate to protect our competitive position on our therapeutic candidates for an adequate amount of time.

Patent rights are of limited duration. In the United States, if all maintenance fees are paid timely, the natural expiration of a patent is generally 20 years after its first effective filing date. Given the amount of time required for the development, testing and regulatory review of new therapeutic candidates, patents protecting such candidates

might expire before or shortly after such therapeutic candidates are commercialized. Even if patents covering our therapeutic candidates are obtained, once the patent life has expired for a product, we may be open to competition from biosimilar or generic products. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing therapeutic candidates similar or identical to ours. Upon issuance in the United States, the term of a patent can be increased by patent term adjustment, which is based on certain delays caused by the USPTO, but this increase can be reduced or eliminated based on certain delays caused by the patent applicant during patent prosecution. The term of a United States patent may also be shortened if the patent is terminally disclaimed over an earlier-filed patent. A patent term extension ("PTE") based on regulatory delay may be available in the United States. However, only a single patent can be extended for each marketing approval, and any patent can be extended only once, for a single product. Moreover, the scope of protection during the period of the PTE does not extend to the full scope of the claim, but instead only to the scope of the product as approved. Laws governing analogous PTEs in foreign jurisdictions vary widely, as do laws governing the ability to obtain multiple patents from a single patent family. Additionally, we may not receive an extension if we fail to exercise due diligence during the testing phase or regulatory review process, apply within applicable deadlines, fail to apply prior to expiration of relevant patents or otherwise fail to satisfy applicable requirements. If we are unable to obtain PTE or restoration, or the term of any such extension is less than we request, the period during which we will have the right to exclusively market our therapeutic will be shortened and our competitors may obtain approval of competing products following our patent expiration and may take advantage of our investment in development and clinical trials by referencing our clinical and preclinical data to launch their product earlier than might otherwise be the case, and our revenue could be reduced, possibly materially.

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 current or future trademarks or trade names may be challenged, infringed, circumvented or declared generic or descriptive or determined to be infringing on other marks. We may not be able to protect our rights to these trademarks and trade names or may be forced to stop using these names, which we need for name recognition by potential partners or customers in our markets of interest.

During trademark registration proceedings, we may receive rejections of our applications by the USPTO or in other foreign jurisdictions. Although we would be given an opportunity to respond to those rejections, we may be unable to overcome such rejections. 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, and our trademarks may not survive such proceedings. If we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively and our business may be adversely affected. We may license our trademarks and trade names to third parties, such as distributors. Although these license agreements may provide guidelines for how our trademarks and trade names may be used, a breach of these agreements or misuse of our trademarks and tradenames by our licensees may jeopardize our rights in or diminish the goodwill associated with our trademarks and trade names.

Moreover, any name we have proposed to use with our therapeutic 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, it 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. 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. If we assert trademark infringement claims, a court may determine that the marks we have asserted are invalid or unenforceable, or that the party against whom we have asserted trademark infringement has superior rights to the marks in question. In this case, we could ultimately be forced to cease use of such trademarks.

Risks Related to Government Regulation

We and/or our collaborators may be unable to obtain, or may be delayed in obtaining, U.S. or foreign regulatory approval and, as a result, unable to commercialize our therapeutic candidates.

Our therapeutic candidates are subject to extensive governmental regulations relating to, among other things, research, testing, development, manufacturing, approval, recordkeeping, reporting, labeling, storage, packaging, advertising and promotion, pricing, post-approval monitoring, marketing and distribution of drugs. Rigorous preclinical testing and clinical trials and an extensive regulatory approval process are required to be completed successfully in the United States and in many foreign jurisdictions before a new drug can be marketed. Satisfaction of these and other regulatory requirements is costly, time consuming, uncertain and subject to unanticipated delays. It is possible that none of the therapeutic candidates we may develop, either alone or with our collaborators, will obtain the regulatory approvals necessary for us or our existing or future collaborators to begin selling them.

We have no prior experience in conducting and managing the clinical trials necessary to obtain regulatory approvals, including approval by the MHRA or the FDA. The time required to obtain MHRA or the FDA and other approvals is unpredictable but typically takes many years following the commencement of clinical trials, depending upon the type, complexity and novelty of the therapeutic candidate. The standards that the MHRA, FDA, EMA and their foreign counterparts use when regulating us require judgment and can change, which makes it difficult to predict with certainty their application. Any analysis we perform of data from preclinical and clinical activities is subject to confirmation and interpretation by regulatory authorities, which could delay, limit or prevent regulatory approval. We or our collaborators may also encounter unexpected delays or increased costs due to new government regulations, for example, from future legislation or administrative action, or from changes in MHRA or the FDA policy during the period of product development, clinical trials and MHRA or the FDA regulatory review. It is impossible to predict whether legislative changes will be enacted, or whether MHRA, FDA, EMA or foreign regulations, guidance or interpretations will be changed, or the impact of such changes, if any.

Given that the therapeutic candidates we are developing, either alone or with our current or future collaborators, represent a new therapeutic approach, the MHRA, FDA, EMA and their foreign counterparts may not have established any definitive policies, practices or guidelines in relation to these therapeutic candidates. Moreover, the MHRA or the FDA may respond to any marketing application that we may submit by defining requirements that we do not anticipate. Such responses could delay clinical development of our therapeutic candidates. In addition, because there are approved treatments for some of the diseases for which we may seek approval, in order to receive regulatory approval, we may need to demonstrate through clinical trials that the therapeutic candidates we develop to treat these diseases, if any, are not only safe and effective, but safer or more effective than existing products. Furthermore, in recent years, there has been increased public and political pressure on the FDA with respect to the approval process for new drugs and FDA standards, especially regarding product safety.

Any delay or failure in obtaining required approvals could have a material and adverse effect on our ability to generate revenue from the particular therapeutic candidate for which we are seeking approval. Furthermore, any regulatory approval to market a product may be subject to limitations on the approved uses for which we may market the product or on the labeling or other restrictions.

We are also subject to or may in the future become subject to numerous foreign regulatory requirements governing, among other things, the conduct of clinical trials, manufacturing and marketing authorization, pricing and third-party reimbursement. The foreign regulatory approval process varies among countries and may include all of the risks associated with the FDA approval process described above, as well as risks attributable to the satisfaction of local regulations in foreign jurisdictions. Moreover, the time required to obtain approval may differ from that required to obtain FDA approval. FDA approval does not ensure approval by regulatory authorities outside the United States and vice versa. Any delay or failure to obtain U.S. or foreign regulatory approval for a therapeutic candidate could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Even if we receive regulatory approval for any of our therapeutic candidates, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense. Additionally, our therapeutic candidates, if approved, could be subject to labeling and other restrictions and market withdrawal. We may also be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our therapeutics.

Any regulatory approvals that we or our existing or future collaborators obtain for our therapeutic candidates may

also be subject to limitations on the approved indicated uses for which a therapeutic may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing and surveillance to monitor the safety and efficacy of the therapeutic candidate.

In addition, if the MHRA, FDA, EMA or a comparable foreign regulatory authority approves any of our therapeutic candidates, the manufacturing processes, labeling, packaging, distribution, post-approval monitoring and adverse event reporting, storage, import, export, advertising, promotion and recordkeeping for the product will be subject to extensive and ongoing regulatory requirements. The FDA has significant post-market authority, including the authority to require labeling changes based on new safety information and to require post-market studies or clinical trials to evaluate safety risks related to the use of a product or to require withdrawal of the product from the market. The FDA also has the authority to require a REMS plan after approval, which may impose further requirements or restrictions on the distribution or use of an approved drug. The manufacturing facilities we use to make a future product, if any, will also be subject to periodic review and inspection by the FDA and other regulatory agencies, including for continued compliance with cGMP requirements. The discovery of any new or previously unknown problems with our third-party manufacturers, manufacturing processes or facilities may result in restrictions on the product, manufacturer or facility, including withdrawal of the product from the market. As we expect to rely on third-party manufacturers, we will not have control over compliance with applicable rules and regulations by such manufacturers. Any product promotion and advertising will also be subject to regulatory requirements and continuing regulatory review. The FDA imposes stringent restrictions on manufacturers' communications regarding use of their products. Although clinicians may prescribe products for off-label uses as the FDA and other regulatory agencies do not regulate a physician's choice of drug treatment made in the physician's independent medical judgment, they do restrict promotional communications from companies or their sales force with respect to off-label uses of products. In addition, as we do not intend to conduct head-to-head comparative clinical trials for our therapeutic candidates, we will be unable to make comparative claims regarding any other products in the promotional materials for our therapeutic candidates. If we promote our therapeutic candidates in a manner inconsistent with FDA-approved labeling or otherwise not in compliance with FDA regulations, we may be subject to enforcement action. If we or our existing or future collaborators, manufacturers or service providers fail to comply with applicable continuing regulatory requirements in the United States or foreign jurisdictions in which we seek to market our therapeutics, we or they may be subject to, among other things, fines, warning or untitled letters, holds on clinical trials, delay of approval or refusal by the FDA or similar foreign regulatory bodies to approve pending applications or supplements to approved applications, suspension or withdrawal of regulatory approval, product recalls and seizures, administrative detention of products, refusal to permit the import or export of products, operating restrictions, injunction, civil penalties and criminal prosecution.

Subsequent discovery of previously unknown problems with a product, 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 the product, withdrawal of the product from the market or voluntary or mandatory product recalls;
- fines, warning or untitled letters or holds on clinical trials;
- refusal by the MHRA or the FDA to approve pending applications or supplements to approved applications filed by us or our strategic partners;
- suspension or revocation of product license approvals;
- product seizure or detention or refusal to permit the import or export of products; and
- injunctions or the imposition of civil or criminal penalties.

The FDA policies may change, and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our therapeutic candidates. For example, in December 2016, the 21st Century Cures Act ("Cures Act"), was signed into law. The Cures Act, among other things, is intended to modernize the regulation of drugs and biologics and to spur innovation. 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 lose any marketing approval that we may have obtained and we may not achieve or sustain profitability, which would adversely affect our business.

We also cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative or executive action, either in the UK, United States or abroad. Changes in FDA staffing could result in delays in the FDA's responsiveness or in its ability to review submissions or applications, issue regulations or guidance, or implement or enforce regulatory requirements in a timely fashion or at all. Similar consequences would also result in the event of another significant shutdown of the federal government such as the one that occurred from December 22, 2018 through January 25, 2019.

We may face difficulties from healthcare legislative reform measures.

Existing regulatory policies may change, and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our therapeutic candidates. We 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. 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 lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

In the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs. For example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Healthcare and Education Reconciliation Act, or together, the ACA, was enacted, the intent to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for health care and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy.

There have been executive, legislative and judicial efforts to modify, repeal, or otherwise invalidate all, or certain aspects of, the ACA. By way of example, the Tax Cuts and Jobs Act of 2017 (the "Tax Reform Act"), was enacted, effective January 1, 2019, and included, among other things, a provision repealing the tax-based shared responsibility payment imposed by the ACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate." On June 17, 2021, the U.S. Supreme Court dismissed a challenge on procedural grounds that argued the ACA is unconstitutional in its entirety because the "individual mandate" was repealed by Congress. Thus, the ACA will remain in effect in its current form. Further, prior to the U.S. Supreme Court ruling, on January 28, 2021, President Biden issued an executive order that initiated a special enrollment period for purposes of obtaining health insurance coverage through the ACA marketplace, which began on February 15, 2021 and closed on 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 possible that the ACA will be subject to judicial or Congressional challenges in the future. It is uncertain how any such challenges and the healthcare measures of the Biden administration will impact the ACA and our business.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted to reduce healthcare expenditures. On August 2, 2011, the Budget Control Act of 2011 among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of 2% per fiscal year, which began in 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2031, with the exception of a temporary suspension and reduction from May 1, 2020 through June 30, 2022 due to the COVID-19 pandemic, unless additional Congressional action is taken.

Moreover, on January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers, 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 over the manner in which manufacturers set prices for their marketed products, which has resulted in several presidential executive orders, 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 drug products. For example, in July 2021, President Biden issued an executive order pertaining to drug pricing, which expressed support for legislation allowing direct negotiation in Medicare Part D and inflationary rebates, and directed various executive branch agencies to take actions to lower drug prices and promote generic competition. Several pending legislative efforts, including President Biden's larger Build Back Better legislative agenda and draft bill text, incorporate these drug pricing reforms in addition to inflationary rebates on Part B and Part D drugs that would be payable on commercial and governmental program utilization, policies aimed at redesigning the Medicare Part D benefit and adopting drug price transparency measures. Drug manufacturers who are unwilling to negotiate with Medicare would be subject to additional excise taxes. Additionally, the plan would impose tax penalties on drug manufacturers that increase the prices of drug products faster than the rate of inflation. If elements of the recently announced prescription drug pricing plan become law, our pricing strategy and commercial prospects may be adversely affected. It is unclear to what extent new statutory, regulatory, and administrative initiatives will be enacted and implemented and to what extent these or any future legislation or regulations by the Biden administration will have on our business, including our ability to generate revenue and achieve profitability. These initiatives recently culminated in the enactment of the Inflation Reduction Act (the "IRA"), in August 2022, which will, among other things, allow U.S. Department of Health and Human Services ("HHS") to negotiate the selling price of certain drugs and biologics that CMS reimburses under Medicare Part B and Part D, although only high-expenditure single-source drugs that have been approved for at least 7 years (11 years for biologics) can be selected by CMS for negotiation, with the negotiated price taking effect two years after the selection year. The negotiated prices, which will first become effective in 2026, will be capped at a statutory ceiling price. Beginning in January 2023 for Medicare Part B and October 2022 for Medicare Part D, the IRA will also penalize drug manufacturers that increase prices of Medicare Part B and Part D drugs at a rate greater than the rate of inflation. The IRA permits the Secretary of HHS to implement many of these provisions through guidance, as opposed to regulation, for the initial years. Manufacturers that fail to comply with the IRA may be subject to various penalties, including civil monetary penalties. The IRA also extends enhanced subsidies for individuals purchasing health insurance coverage in ACA marketplaces through plan year 2025. These provisions will take effect progressively starting in 2023, although they may be subject to legal challenges.

At the state level, legislatures are increasingly passing legislation and implementing 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.

We expect that additional state and federal healthcare reform measures will be adopted in the future, particularly in light of the new presidential administration. Such reform measures may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our therapeutics.

Our operations and relationships with healthcare providers, healthcare organizations, customers and third-party payors will be subject to applicable anti-bribery, anti-kickback, fraud and abuse, transparency and other healthcare and privacy laws and regulations, which could expose us to, among other things, enforcement actions, criminal sanctions, civil penalties, contractual damages, reputational harm, administrative burdens and diminished profits and future earnings.

Our future arrangements with healthcare providers, healthcare organizations, third-party payors and customers expose us to broadly applicable anti-bribery, fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we research, market, sell and distribute our therapeutic candidates. In addition, we may be subject to patient data privacy and security regulation by the U.S. federal government and the states and the foreign governments in which we conduct our business. Restrictions under applicable federal and state anti-bribery and healthcare laws and regulations, include the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, individuals and entities from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made, in whole or in part, under a federal and state healthcare program such as Medicare and Medicaid. 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 criminal and civil false claims laws, including the federal False Claims Act, which can be enforced through civil whistleblower or qui tam actions against individuals or entities, and the Federal Civil Monetary Penalties Laws, which prohibit, among other things, knowingly presenting, or causing to be presented, to the federal government, claims for payment 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 a false statement to avoid, decrease or conceal an obligation to pay money to the federal government. In addition, certain marketing practices, including off-label promotion, may also violate false claims laws. Moreover, the government may assert that a claim including items and services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act;
- HIPAA, which imposes criminal and civil liability, prohibits, 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;
- HIPAA, as amended by HITECH, and their respective implementing regulations, including the Final Omnibus Rule published on January 25, 2013, which impose obligations on certain healthcare providers, health plans, and healthcare clearinghouses, known as covered entities, as well as their business associates that perform certain services involving the storage, use or disclosure of individually identifiable health information for or on behalf of a covered entity and their covered subcontractors, including mandatory contractual terms, with respect to safeguarding the privacy, security, and transmission of individually identifiable health information, and require notification to affected individuals and regulatory authorities of certain breaches of security of individually identifiable health information;
- the federal legislation commonly referred to as the Physician Payments Sunshine Act, enacted as part of the ACA, and its implementing regulations, which requires certain manufacturers of covered drugs, devices, biologics and medical supplies that are reimbursable under Medicare, Medicaid, or the Children's Health Insurance Program, with certain exceptions, to report annually to CMS information on certain payments and other transfers of value to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), physician assistants, certain types of advance practice nurses and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. The reported data is made available in searchable form on a public website on an annual basis. Failure to submit required information may result in civil monetary penalties;
- state privacy laws and regulations, such as those of California, Massachusetts and Virginia, that impose restrictive requirements regulating the use and disclosure of personal information, including health information. These laws may differ significantly from one another and often to not apply to health information that is subject to HIPAA. For example, in June 2018, California enacted the CCPA (which went into effect on January 1, 2020) and 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, and provides for civil penalties for violations, as well as a private right of action for data breaches;
- foreign privacy, data protection, and data security laws and regulations, such as the GDPR, which imposes comprehensive obligations on covered businesses to, among other things, make contractual privacy, data protection and data security commitments, cooperate with European data protection authorities, implement security measures, give data breach notifications, and keep records of personal information processing activities;
- the U.S. Foreign Corrupt Practices Act of 1977, as amended, which prohibits, among other things, U.S. companies and their employees and agents from authorizing, promising, offering, or providing, directly or indirectly, corrupt or improper payments or anything else of value to foreign government officials, employees of public international organizations and foreign government owned or affiliated entities, candidates for foreign political office, and foreign political parties or officials thereof;

- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, that may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; and
- certain state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring drug manufacturers to report information related to payments to clinicians and other healthcare providers or marketing expenditures and drug pricing information, and state and local laws that require the registration of pharmaceutical sales representatives.

If we or our future collaborators, manufacturers or service providers fail to comply with applicable federal, state or foreign laws or regulations, we could be subject to enforcement actions, which could affect our ability to develop, market and sell our therapeutics successfully and could harm our reputation and lead to reduced acceptance of our therapeutics by the market. These enforcement actions include, among others:

- exclusion from participation in government-funded healthcare programs; and
- exclusion from eligibility for the award of government contracts for our therapeutics.

Efforts to ensure that our current and future business arrangements with third parties comply with applicable healthcare laws and regulations could involve substantial costs. It is possible that governmental authorities will conclude that our business practices do not comply with current or future statutes, regulations, agency guidance 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 such requirements, we may be subject to significant penalties, including civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, the curtailment or restructuring of our operations, loss of eligibility to obtain approvals from the FDA, exclusion from participation in government contracting, healthcare reimbursement or other government programs, including Medicare and Medicaid, integrity oversight and reporting obligations, or reputational harm, any of which could adversely affect our financial results. These risks cannot be entirely eliminated. Any action against us for an alleged or suspected violation could cause us to incur significant legal expenses and could divert our management's attention from the operation of our business, even if our defense is successful. In addition, achieving and sustaining compliance with applicable laws and regulations may be costly to us in terms of money, time and resources.

Even if we are able to commercialize any therapeutic candidate, such therapeutic candidate may become subject to unfavorable pricing regulations or third-party coverage and reimbursement policies, which would harm our business.

The regulations that govern regulatory approvals, pricing and reimbursement for new drugs vary widely from country to country. Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after marketing approval is granted. In some foreign markets, prescription biopharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain regulatory approval for a therapeutic in a particular country, but then be subject to price regulations that delay our commercial launch of the therapeutic, possibly for lengthy time periods and negatively impact the revenue we are able to generate from the sale of the therapeutic in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more therapeutic candidates, even if our therapeutic candidates obtain regulatory approval.

Our ability to commercialize any therapeutics successfully also will depend in part on the extent to which coverage and adequate reimbursement for these therapeutics and related treatments will be available from third-party payors including government authorities, such as Medicare and Medicaid, private health insurers and other organizations. Patients who are provided medical treatment for their conditions generally rely on third-party payors to reimburse all or part of the costs associated with their treatment. Coverage and adequate reimbursement from third-party payors are critical to new therapeutic acceptance. Even if we succeed in bringing one or more therapeutics to the market, these therapeutics may not be considered cost-effective, and the amount reimbursed for any therapeutics may be insufficient to allow us to sell our therapeutics on a competitive basis. Because our programs are in the early stages of development, we are unable at this time to determine their cost effectiveness or the likely level or method of coverage and reimbursement. Increasingly, the third-party payors who reimburse patients or healthcare providers, such as government and private insurance plans, are requiring that drug companies provide them with predetermined discounts from list prices, and are seeking to reduce the prices charged or the amounts reimbursed for biopharmaceutical products. If the price we are able to charge for any therapeutics we develop, or the coverage and

reimbursement provided for such therapeutics, is inadequate in light of our development and other costs, our return on investment could be affected adversely.

There may be significant delays in obtaining reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the MHRA, FDA, EMA or similar foreign regulatory authorities. Moreover, eligibility for reimbursement does not imply that any drug or therapeutic biologic will be reimbursed in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution.

Interim reimbursement levels for new drugs, if applicable, may also be insufficient to cover our costs and may not be made permanent. Reimbursement rates may be based on payments allowed for lower cost drugs that are already reimbursed, may be incorporated into existing payments for other services and may reflect budgetary constraints or imperfections in Medicare data. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Further, no uniform policy for coverage and reimbursement exists in the United States, and coverage and reimbursement can differ significantly from payor to payor. As a result, obtaining coverage and reimbursement approval of a therapeutic from a third-party payor is a time consuming and costly process that could require us to provide to each payor supporting scientific, clinical and cost effectiveness data for the use of our therapeutics on a payor-by-payor basis, with no assurance that coverage and adequate reimbursement will be obtained. There is significant uncertainty related to the insurance coverage and reimbursement of newly approved therapeutics. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement rates, but also have their own methods and approval process apart from Medicare determinations. Our inability to promptly obtain coverage and adequate reimbursement rates from both government-funded and private payors for new drugs that we develop and for which we obtain regulatory approval could have a material and adverse effect on our business, financial condition, results of operations and prospects.

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

We are subject to export control and import laws and regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations, various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls, the U.S. Foreign Corrupt Practices Act of 1977, as amended ("FCPA") the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. 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, contractors, and other collaborators from authorizing, promising, offering, or providing, 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 to sell our therapeutics sell our therapeutics outside the United States, to conduct clinical trials, 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, contractors, and other collaborators, even if we do not explicitly authorize or have actual knowledge of such activities. 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.

Governments outside the United States tend to impose strict price controls, which may adversely affect our revenue, if any.

In some countries, particularly member states of the European Union, the pricing of prescription drugs is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after receipt of marketing approval for a therapeutic. In addition, there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various EU member states and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices. To obtain coverage and reimbursement or pricing approvals in some countries, we or current or future

collaborators may be required to conduct a clinical trial or other studies that compare the cost-effectiveness of our therapeutic candidates to other available therapies in order to obtain or maintain reimbursement or pricing approval. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels within the country of publication and other countries. If reimbursement of any therapeutic candidate approved for marketing is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business, financial condition, results of operations or prospects could be materially and adversely affected. Brexit could lead to legal uncertainty and potentially divergent national laws and regulations, including those related to the pricing of prescription pharmaceuticals, as the UK determines which EU laws to replicate or replace. If the UK were to significantly alter its regulations affecting the pricing of prescription pharmaceuticals, we could face significant new costs.

Risks Related Our Common Stock

Our quarterly and annual operating results may fluctuate significantly or may fall below the expectations of investors or securities analysts, each of which may cause our stock price to fluctuate or decline.

We expect our operating results to be subject to quarterly fluctuations. Our net loss and other operating results will be affected by numerous factors, including:

- variations in the level of expense related to the ongoing development of IL-17 program, our lead therapeutic candidate or future development programs;
- results of preclinical and clinical trials, or the addition or termination of ongoing or future clinical trials or funding support by us, or existing or future collaborators or licensing partners;
- our execution of any additional collaboration, licensing or similar arrangements, and the timing of payments we may make or receive under existing or future arrangements or the termination or modification of any such existing or future arrangements;
- any intellectual property infringement lawsuit or opposition, interference or cancellation proceeding in which we may become involved;
- additions and departures of key personnel;
- strategic decisions by us or our competitors, such as acquisitions, divestitures, spin-offs, joint ventures, strategic investments or changes in business strategy;
- if any of our therapeutic candidates receives regulatory approval, the terms of such approval and market acceptance and demand for such therapeutic candidates;
- effects of macroeconomic and global events, such as inflation, rising interest rates, pandemics and geopolitical conflict, on our business and operations;
- regulatory developments affecting our therapeutic candidates or those of our competitors; and
- changes in general market and economic conditions.

If our quarterly or annual operating results fall below the expectations of investors or securities analysts, the price of our common stock could decline substantially. Furthermore, any quarterly or annual fluctuations in our operating results may, in turn, cause the price of our common stock to fluctuate substantially. We believe that quarterly comparisons of our financial results are not necessarily meaningful and should not be relied upon as an indication of our future performance.

The market price of our stock may be volatile, and you could lose all or part of your investment.

The trading price of our common stock is likely to be highly volatile and subject to wide fluctuations in response to various factors, some of which we cannot control. As a result of this volatility, investors may not be able to sell their common stock at or above the price initially paid for the stock. The market price for our common stock may be influenced by many factors, including the other risks described in this section of this Annual Report on Form 10-K entitled “Risk Factors” and the following:

- results of preclinical studies and clinical trials of our therapeutic candidates, or those of our competitors or our existing or future collaborators;

- regulatory or legal developments in the United States, the UK and/or other countries, especially changes in laws or regulations applicable to our therapeutic candidates;
- the success of competitive products or technologies;
- introductions and announcements of new therapeutics by us, our future commercialization partners, or our competitors, and the timing of these introductions or announcements;
- actions taken by regulatory agencies with respect to our therapeutics, clinical studies, manufacturing process or sales and marketing terms;
- actual or anticipated variations in our financial results or those of companies that are perceived to be similar to us;
- the success of our efforts to acquire or in-license additional technologies or therapeutic candidates;
- developments concerning any future collaborations, including but not limited to those with development and commercialization partners;
- market conditions in the pharmaceutical and biotechnology sectors;
- announcements by us or our competitors of significant acquisitions, strategic collaborations, joint ventures or capital commitments;
- developments or disputes concerning patents or other proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our therapeutic candidates;
- our ability or inability to raise additional capital and the terms on which we raise it;
- the recruitment or departure of key personnel;
- changes in the structure of healthcare payment systems;
- actual or anticipated changes in earnings estimates, development timelines or changes in stock market analyst recommendations regarding our common stock, other comparable companies or our industry generally;
- our failure or the failure of our competitors to meet analysts' projections or guidance that we or our competitors may give to the market;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- announcement and expectation of additional financing efforts;
- speculation in the press or investment community;
- share price and fluctuations of trading volume of our common stock;
- sales of our common stock by us, insiders or our stockholders;
- the concentrated ownership of our common stock;
- changes in accounting principles;
- actions instituted by activist shareholders or others;
- political or civil unrest, changes and uncertainty associated with terrorism, hostilities or natural disasters and other calamities, including global pandemics such as COVID-19 and the ongoing conflict in Ukraine; and
- changes in general market and economic conditions, including increasing interest rates, inflation and the possibility of a recession or general economic downturn.

In addition, the stock market in general, and the markets for pharmaceutical, biopharmaceutical and biotechnology stocks in particular, have experienced extreme price and volume fluctuations that have been often unrelated or disproportionate to the operating performance of the issuer, and, in recent months, the global economy has been impacted by increasing interest rates and inflation. Likewise, the capital and credit markets may be adversely affected by the recent conflict between Russia and Ukraine, and the possibility of a wider European or global

conflict, and global sanctions imposed in response thereto. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our actual operating performance. The realization of any of the above risks or any of a broad range of other risks, including those described in this "Risk Factors" section, could have a dramatic and adverse impact on the market price of our common stock.

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 biopharmaceutical companies, which have experienced significant stock price volatility in recent years. Additionally, market volatility may lead to increased shareholder activism if we experience a market valuation that they believe are not reflective of our stock's intrinsic value. Activist campaigns that contest or conflict with our strategic direction or seek changes in the composition of our board of directors could have an adverse effect on our operating results and financial condition.

A sale of a substantial number of shares of our common stock may cause the price of our common stock to decline

We cannot predict what effect, if any, sales of our shares in the public market or the availability of shares for sale will have on the market price of our common stock. However, future sales of substantial amounts of our common stock in the public market, including shares issued upon exercise of our options, or the perception that such sales may occur, could adversely affect the market price of our common stock.

We also expect that significant additional capital may be needed in the future to continue our planned operations. To raise capital, we may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. To the extent that additional capital is raised through the sale and issuance of shares or other securities convertible into shares, our stockholders will be diluted. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock.

Our principal stockholders and management own a significant percentage of our stock and may be able to control matters subject to stockholder approval.

As of December 31, 2022, our executive officers, directors, beneficial holders of 5% or more of our capital stock and their respective affiliates beneficially owned shares representing a substantial portion of our capital stock. The interests of these stockholders may not be the same as or may even conflict with your interests. For example, these stockholders could delay or prevent a change of control of our company, even if such a change of control would benefit our other stockholders, which could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of our company or our assets and might affect the prevailing market price of our common stock. The significant concentration of stock ownership may adversely affect the trading price of our common stock due to investors' perception that conflicts of interest may exist or arise.

We are an "emerging growth company" and a "smaller reporting company" and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies or smaller reporting companies will make our common stock less attractive to investors.

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012 ("JOBS Act"). For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including (i) 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"), (ii) reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and (iii) exemptions from the requirements of holding nonbinding advisory stockholder votes on executive compensation and stockholder approval of any golden parachute payments not approved previously. In addition, as an emerging growth company, we are only required to provide two years of audited financial statements and two years of selected financial data in our periodic quarterly and annual filings.

We could be an "emerging growth company" until December 31, 2026, although circumstances could cause us to lose that status earlier, including if we are deemed to be a "large accelerated filer," which occurs when the market value of our common stock that is held by non-affiliates equals or exceeds $700.0 million as of the prior June 30, or if we have total annual gross revenue of $1.07 billion or more during any fiscal year before that time, in which cases we would no longer be an emerging growth company as of the following December 31, or if we issue more than $1.0 billion in non-convertible debt during any three-year period before that time, in which case we would no longer

be an "emerging growth company" immediately. Even after we no longer qualify as an "emerging growth company," we may still qualify as a "smaller reporting company," which would allow us to take advantage of many of the same exemptions from disclosure requirements, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. We cannot predict if investors will find our common stock less attractive because we may 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 share price may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to take advantage of the benefits of this extended transition period. Our financial statements may therefore not be comparable to those of companies that comply with such new or revised accounting standards. Until the date that we are no longer an "emerging growth company" or affirmatively and irrevocably opt out of the exemption provided by Section 7(a)(2)(B) of the Securities Act, upon issuance of a new or revised accounting standard that applies to our financial statements and that has a different effective date for public and private companies, we will disclose the date on which adoption is required for non-emerging growth companies and the date on which we will adopt the recently issued accounting standard.

We are also a "smaller reporting company," meaning that the market value of our stock held by non-affiliates plus the aggregate amount of gross proceeds to us is less than $700.0 million as of the end of our most recent second fiscal quarter and our annual revenue is less than $100.0 million during the most recently completed fiscal year. We may continue to be a "smaller reporting company" if either (i) the market value of our stock held by non-affiliates is less than $250.0 million or (ii) our annual revenue is less than $100.0 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700.0 million. If we are a "smaller reporting company" at the time we cease to be an "emerging growth company," we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a "smaller reporting company" we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Anti-takeover provisions in our charter documents and under Delaware law could prevent or delay an acquisition of us, which may be beneficial to our stockholders, and may prevent attempts by our stockholders to replace or remove our current management.

Our restated certificate of incorporation and our restated bylaws contain provisions that could delay or prevent a change in control of our company. These provisions could also make it difficult for stockholders to elect directors who are not nominated by current members of our board of directors or take other corporate actions, including effecting changes in our management. These provisions:

- establish a classified board of directors so that not all members of our board are elected at one time;
- permit only the board of directors to establish the number of directors and fill vacancies on the board;
- provide that directors may only be removed "for cause" and only with the approval of two-thirds of our stockholders;
- require super-majority voting to amend some provisions in our restated certificate of incorporation and restated bylaws;
- authorize the issuance of "blank check" preferred stock that our board could use to implement a stockholder rights plan;
- eliminate the ability of our stockholders to call special meetings of stockholders;
- prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;
- prohibit cumulative voting; and
- establish advance notice requirements for nominations for election to our board or for proposing matters that can be acted upon by stockholders at annual stockholder meetings.

In addition, Section 203 of the Delaware General Corporation Law ("DGCL") may discourage, delay or prevent a change in control of our company. Section 203 imposes certain restrictions on mergers, business combinations and other transactions between us and holders of 15% or more of our common stock.

The exclusive forum provision in our restated certificate of incorporation may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, or employees, or the underwriters of any offering giving rise to such claim, which may discourage lawsuits with respect to such claims.

Our restated certificate of incorporation, to the fullest extent permitted by law, provides 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 DGCL, our restated certificate of incorporation, or our restated bylaws; or any action asserting a claim that is governed by the internal affairs doctrine. This exclusive forum provision does not apply to suits brought to enforce a duty or liability created by the Securities Exchange Act of 1934, as amended ("Exchange Act"). It could apply, however, to a suit that falls within one or more of the categories enumerated in the exclusive forum provision.

This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, or other employees, or the underwriters of any offering giving rise to such claims, which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provisions contained in our 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 harm our business, results of operations and financial condition.

Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all claims brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. Our restated bylaws provide that the federal district courts of the United States of America, to the fullest extent permitted by law, shall be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act ("Federal Forum Provision"), including for 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. Our decision to adopt a Federal Forum Provision followed a decision by the Supreme Court of the State of Delaware holding that such provisions are facially valid under Delaware law. While federal or state courts may not follow the holding of the Delaware Supreme Court or may determine that the Federal Forum Provision should be enforced in a particular case, application of the Federal Forum Provision means that suits brought by our stockholders to enforce any duty or liability created by the Securities Act must be brought in federal court and cannot be brought in state court, and our stockholders cannot waive compliance with the federal securities laws and the rules and regulations thereunder.

Section 27 of the Exchange Act creates exclusive federal jurisdiction over all claims brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. In addition, neither the exclusive forum provision nor the Federal Forum Provision applies to suits brought to enforce any duty or liability created by the Exchange Act. Accordingly, actions by our stockholders to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder must be brought in federal court, and our stockholders cannot waive compliance with the federal securities laws and the rules and regulations thereunder.

Any person or entity purchasing or otherwise acquiring or holding any interest in any of our securities shall be deemed to have notice of and consented to our exclusive forum provisions, including the Federal Forum Provision. These provisions may limit a stockholders' ability to bring a claim, and may result in increased costs for a stockholder to bring such a claim, in a judicial forum of their choosing for disputes with us or our directors, officers, or other employees, or the underwriters of any offering giving rise to such claim, which may discourage lawsuits against us and our directors, officers, and other employees.

Because we do not anticipate paying any dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never declared or paid dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development, operation and expansion of our business and do not

anticipate declaring or paying any dividends for the foreseeable future. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

General Risk Factors

If securities or industry analysts do not publish research or reports about our business, or if they issue an adverse or misleading opinion regarding our stock, our stock price and trading volume could decline.

The trading market for our common stock is influenced by the research and reports that industry or securities analysts publish about us or our business. We do not have any control over the industry or securities analysts, or the content and opinions included in their reports. In addition, if no or few securities or industry analysts continue or commence coverage of us, the trading price for our common stock could be impacted negatively. In the event we obtain securities or industry analyst coverage, if any of the analysts who cover us issue an adverse or misleading opinion regarding us, our business model, our intellectual property or our stock performance, or if our preclinical studies and clinical trials and operating results fail to meet the expectations of analysts, our stock price would likely decline. If one or more of such analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause a decline in our stock price or trading volume.

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

As a public company, and particularly after we are no longer an "emerging growth company," we will continue to incur significant legal, accounting and other expenses that we did not incur as a private company. The Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the Nasdaq Global Market and other applicable securities rules and regulations impose various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. In addition, changing laws, regulations, and standards relating to corporate governance and public disclosure, including those related to climate change and other environmental, social and governance focused disclosures, are creating uncertainty for public companies, increasing legal and financial compliance costs, and making some activities more time consuming. Our management and other personnel will continue to devote a substantial amount of time to these compliance initiatives, and we will continue to incur increased legal and financial compliance costs. For example, we expect that maintaining customary public company director and officer liability insurance will require substantial expenditures. The impact of these legal and financial requirements could 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. The increased costs may require us to reduce costs in other areas of our business or increase the prices of our therapeutic candidates, once commercialized. Moreover, these rules and regulations are often subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

If we fail to maintain proper and effective internal controls over financial reporting our ability to produce accurate and timely financial statements could be impaired.

When we lose our status as an "emerging growth company" and become an "accelerated filer" or a "large accelerated filer," we will be required to have an audit of the effectiveness of our internal control over financial reporting. The rules governing the standards that must be met for management to assess our internal control over financial reporting are complex and require significant documentation, testing, and possible remediation. To achieve compliance with Section 404 within the prescribed period, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, engage outside consultants and adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented and implement a continuous reporting and improvement process for internal control over financial reporting. This process will be time-consuming, costly and complicated.

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 in our internal control over financial reporting, 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 the Nasdaq Global Market, 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.

We are 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 realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. For example, our directors or executive officers could inadvertently fail to disclose a new relationship or arrangement causing us to fail to make any related party transaction disclosures. 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. In addition, we do not have a formal risk management program for identifying and addressing risks to our business in other areas.

We may be subject to securities litigation, which is expensive and could divert management attention.

The market price of our common stock may be volatile. The stock market in general, and Nasdaq and biopharmaceutical companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our principal executive office is located at 400 East Jamie Court, Suite 300, South San Francisco, California, where we lease a total of 33,331 square feet of office and laboratory space that we use for our administrative, research and development and other activities. We believe that our existing facilities are adequate for the foreseeable future. As we expand, we believe that suitable additional alternative spaces will be available in the future on commercially reasonable terms, if required.

Item 3. Legal Proceedings.

From time to time, we may be involved in legal proceedings arising in the ordinary course of our business. We are not presently a party to any legal proceedings that, in the opinion of management, would have a material adverse effect on our business. Regardless of outcome, litigation can have an adverse impact on us due to defense and settlement costs, diversion of management resources, negative publicity and reputational harm, and other factors.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information for Common Stock

Our common stock has traded on the Nasdaq Global Market under the symbol "DICE" since September 15, 2021. Prior to that, there was no public market for our common stock.

Dividend Policy

We have never declared or paid, and do not anticipate declaring or paying in the foreseeable future, any cash dividends on our capital stock. Any future determination as to the declaration and payment of dividends, if any, will be at the discretion of our board of directors, subject to applicable laws and will depend on then existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects, and other factors our board of directors may deem relevant. Our ability to pay dividends is prohibited by the terms of our SVB Loan and Security Agreement, and may be restricted by any future credit agreement or any future debt or preferred equity securities of us or our subsidiaries.

Stock Price Performance Graph

As a "smaller reporting company" as defined by Item 10 of Regulation S-K, we are not required to provide this information.

Stockholders

As of March 8, 2023, there were 27 holders of record of our common stock. The actual number of stockholders is greater than this number of record holders, and includes stockholders who are beneficial owners, but whose shares are held in street name by brokers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

Unregistered Sales of Equity Securities

None.

Use of Proceeds from Public Offering of Common Stock

On September 17, 2021, we closed our initial public offering, and issued 13,800,000 shares of common stock at a price of $17.00 per share for net proceeds of $214.7 million, after deducting underwriting discounts, commissions, and other expenses of $19.9 million, and including the full exercise of the underwriters' option to purchase additional shares. None of the expenses associated with the IPO were paid to directors, officers, persons owning 10% or more of any class of equity securities, or to their associates. BofA Securities Inc., SVB Leerink LLC and Evercore Group L.L.C. acted as joint bookrunning managers for the offering.

There has been no material change in the planned use of proceeds from our IPO as described in the prospectus filed with the SEC pursuant to Rule 424(b)(4) under the Securities Act on September 16, 2021.

Issuer Purchases of Equity Securities

None.

Item 6. [Reserved]

Item 7. 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 in conjunction with our consolidated financial statements and the related notes and other financial information included elsewhere in this Annual Report on Form 10-K.

This discussion and analysis generally covers our financial condition and results of operations for the year ended December 31, 2022, as compared to the year ended December 31, 2021. For our discussion of the year ended December 31, 2021, as compared to the year ended December 31, 2020, refer to Item 7 of Part II, "Management's Discussion and Analysis of Financial Condition and Results of Operations" located in our Annual Report on Form 10-K for the year ended December 31, 2021.

As discussed in the section titled "Special Note Regarding Forward Looking Statements," the following discussion and analysis contains forward-looking statements that involve risks and uncertainties. Our actual results and the timing of selected events could differ materially from those discussed below. Factors that could cause or contribute to such differences include, but are not limited to, those identified below and those set forth in the section titled "Risk Factors" under Part I, Item 1A. Unless the context requires otherwise, references in this Annual Report on Form 10-K to the "Company," "DICE," "we," "us" and "our" refer to DICE Therapeutics, Inc. and its wholly-owned subsidiaries.

Overview

We are a biopharmaceutical company leveraging our proprietary technology platform to build a pipeline of novel oral therapeutic candidates to treat chronic diseases in immunology and other therapeutic areas. We are initially focused on developing oral therapeutics against well-validated targets in immunology, with the goal of achieving comparable potency to their systemic biologic counterparts, which have demonstrated the greatest therapeutic benefit to date in these disease areas. Our platform, which we refer to as DELSCAPE, is designed to discover selective oral small molecules with the potential to modulate protein-protein interactions ("PPIs") as effectively as systemic biologics. We believe there is a significant unmet medical need for convenient oral therapies in chronic immunological diseases that offer the therapeutic benefits of systemic biologics.

Our lead therapeutic candidate, DC-806, is an oral antagonist of the pro-inflammatory signaling molecule, interleukin-17 ("IL-17"), which is a validated drug target implicated in a variety of immunology indications. There are two approved antibody therapeutics, COSENTYX (secukinumab), marketed by Novartis, and TALTZ (ixekizumab), marketed by Eli Lilly, but no oral therapies targeting this pathway. COSENTYX and TALTZ both are approved for the treatment of psoriasis, psoriatic arthritis, ankylosing spondylitis and non-radiographic axial spondyloarthritis, and collectively generated approximately $7.3 billion in worldwide sales in 2022. The Medicines and Healthcare Products Regulatory Agency ("MHRA") in the United Kingdom ("UK") approved our Clinical Trial Application ("CTA") for DC-806 in September 2021 and in October 2022, we announced positive topline data from our Phase 1 clinical trial in healthy volunteers and psoriasis patients. The Phase 1 trial was designed to generate safety and pharmacokinetic ("PK") data, as well as provide early clinical proof-of-concept in psoriasis patients. The trial was conducted in three overlapping cohorts: Phase 1a (single ascending dose) and Phase 1b (multiple ascending dose) in healthy volunteers, and a proof-of-concept Phase 1c in psoriasis patients. Clinical proof-of-concept in psoriasis patients was achieved with a mean percentage reduction in Psoriasis Area and Severity Index ("PASI") from baseline at 4 weeks of 43.7% in the high dose group compared to 13.3% in the placebo group, with an exploratory p-value of 0.0008. Additionally, DC-806 was well tolerated with a favorable safety profile across all dose groups in healthy volunteers and psoriasis patients, with a robust PK profile and clear pharmacodynamic effects on two distinct biomarkers at both high and low doses of DC-806. Collectively these data support further development of DC-806 as a potential best-in-class oral agent for the treatment of psoriasis. Our investigational new drug ("IND") application was cleared by the U.S. Food and Drug Administration ("FDA") in March 2023 and is in effect for DC-806. We plan to advance DC-806 into a global Phase 2b clinical trial in the first half of 2023.

In the second half of 2021, we nominated a development candidate, DC-853, a differentiated fast-follower molecule that in pre-clinical studies has been shown to inhibit IL-17AA and IL-17AF in a manner similar to that of DC-806. The MHRA in the UK approved our CTA for DC-853 in February 2023. We began dosing healthy volunteers in our Phase 1 clinical trial with DC-853 and expect topline data in the second half of 2023. We believe that advancing multiple platform-derived therapeutic candidates unlocks the ability to develop compounds with differentiated properties and has the potential to maximize the value of our IL-17 franchise, and therefore we intend

to nominate an additional, structurally differentiated IL-17 inhibitor as a development candidate and progress it through IND-enabling studies.

We also are developing oral therapeutic candidates targeting α4ß7 integrin for the treatment of inflammatory bowel disease ("IBD") and evaluating oral therapeutic candidates targeting αVß1/αVß6 integrin for the treatment of fibrosis. Additionally, in July 2022, we regained worldwide rights to a previously partnered oral immuno-oncology program, small-molecule PD-L1 inhibitors discovered using our DELSCAPE platform. Leveraging DELSCAPE, we are also evaluating other novel and validated immunology targets, including interleukin-23 ("IL-23"), tumor necrosis factor α ("TNFα"), neonatal Fc receptor ("FcRn"), and thymic stromal lymphopoietin ("TSLP"), among other potential targets, with a view toward advancing one or more programs into clinical development.

Currently, all of our preclinical and clinical drug manufacturing, storage, distribution and quality testing is outsourced to third-party manufacturers. As our development programs progress and we build new process efficiencies, we expect to continually evaluate this strategy with the objective of satisfying demand for registration trials and, if approved, the manufacture, sale and distribution of commercial products.

On September 17, 2021, we closed our initial public offering ("IPO") in which we sold an aggregate of 13,800,000 shares of common stock at a price to the public of $17.00 per share, which included 1,800,000 shares issued upon the full exercise by the underwriters of their option to purchase additional shares of common stock. We received aggregate net proceeds from the IPO of approximately $214.7 million, after deducting underwriting discounts and offering costs. On October 17, 2022, we closed an underwritten follow-on public offering ("Follow-on Offering") of 9,452,054 shares of our common stock, which included the exercise in full by the underwriters of their option to purchase 1,232,876 shares of common stock, at an offering price of $36.50 per share. Proceeds from the Follow-on Offering were approximately $323.7 million, after deducting underwriting discounts and offering costs.

Our revenue to date has been generated solely from research collaborations and activities. We have not had any products approved for sale and have not generated any revenue from product sales. Further, we do not expect to generate revenue from product sales until such time, if ever, that we are able to successfully complete the development and obtain marketing approval for one of our therapeutic candidates. We have incurred net losses in each year since inception, except for the year ended December 31, 2016, and expect to continue to incur net losses for the foreseeable future. Our ability to generate product revenue will depend on the successful development and eventual commercialization of one or more of our therapeutic candidates. Our net losses were $83.9 million and $49.0 million for the years ended December 31, 2022 and 2021, respectively. As of December 31, 2022, we had an accumulated deficit of $187.6 million. Our net losses may fluctuate significantly from period to period, depending on the timing and expenditures of our research and development activities.

Collaboration Agreements

Sanofi

In December 2015, we entered into a license and collaboration agreement with Sanofi, which was amended and restated in August 2017 (as amended, the "Sanofi Agreement"), under which we agreed to grant Sanofi an exclusive option to license to develop and commercialize (as applicable), certain compounds into products. In March 2022, Sanofi notified us that it no longer intended to develop therapeutic candidates under the Sanofi Agreement and terminated the agreement, effective July 13, 2022. As a result, we regained worldwide rights to the program in July 2022. No further revenue will be recognized from this arrangement.

In connection with the right to earn Sum of Evidence ("SOE") points under the Sanofi Agreement, we recognized $2.0 million in revenue in 2018, when SOE points were earned. The contract asset is recorded as an unbilled receivable of $2.0 million as of December 31, 2021. In August 2022, we reached a negotiated settlement of our receivable of $1.5 million. As of December 31, 2022 the receivable was collected and no longer outstanding.

Genentech

In November 2017, we entered into a collaboration agreement ("Genentech Agreement") with Genentech, Inc. In June 2021, the collaboration research program was terminated, and the remaining $1.1 million of deferred revenue was recognized in that period. No further revenue will be recognized from this arrangement.

Components of Results of Operations

Revenue

We have not generated any revenue from product sales and do not expect to do so in the near future. Our revenue to date has been primarily related to fees received by us under our research and development drug discovery collaboration arrangements with Sanofi and Genentech. In March 2022, our collaboration agreement with Sanofi was terminated. In June 2021, the Genentech Agreement was terminated and we recognized the remaining $1.1 million of deferred revenue as collaboration revenue in the second quarter of 2021.

Research and Development

Research and development expenses account for a significant portion of our operating expenses. Research and development expenses consist primarily of direct and indirect costs incurred for the discovery and development of our therapeutic candidates.

Our direct costs include:

- expenses incurred under agreements with third-party contract organizations for preclinical studies, clinical trials and research and development activities conducted on our behalf;
- costs related to production of clinical materials, including fees paid to contract manufacturers;
- laboratory materials and supplies used to support our research activities; and
- costs related to the preparation of regulatory submissions.

Our indirect costs include:

- personnel-related expenses, including salaries, benefits, and stock-based compensation for personnel engaged in research and development functions; and
- allocated facilities and other expenses, which include expenses for rent and maintenance of facilities, depreciation expense and other supplies.

We expense all research and development costs in the periods in which they are incurred. Costs for certain development activities are recognized based on an evaluation of the progress to completion of specific tasks using information and data provided to us by our vendors, collaborators, and third-party service providers.

A significant portion of our research and development costs have been external costs, which we track by stage of development, preclinical or clinical. However, we do not track our indirect costs on a program specific basis because these costs are deployed across multiple projects and, as such, are not separately classified. Once our IL-17 program completed IND-enabling studies and entered into Phase 1 clinical trials, we began to separately present the external costs associated with that program.

We anticipate that our research and development expenses will increase substantially in future periods as we continue to invest in research and development activities related to developing our therapeutic candidates, as our therapeutic candidates advance into later stages of development, as we begin to conduct larger clinical trials, as we seek regulatory approvals for any therapeutic candidates that successfully complete clinical trials, and as we incur expenses associated with hiring additional personnel to support our research and development efforts.

General and Administrative

General and administrative expenses consist primarily of personnel-related costs, legal fees relating to intellectual property and corporate matters, professional fees paid for accounting, auditing, consulting, tax and investor relations services, insurance costs, information technology costs, general corporate expenses, and facility costs not otherwise included in research and development expenses. Personnel-related costs include salaries, benefits, and stock-based compensation for our personnel in executive, legal, finance and accounting, human resources, and other administrative functions.

We anticipate that our general and administrative expenses will increase substantially in future periods as we increase our headcount to support the growth of our business. We also anticipate that we will incur increased

expenses as a result of operating as a public company, including expenses related to compliance with the rules and regulations of the SEC and those of any national securities exchange on which our securities are traded, legal, auditing, additional insurance expenses, investor relations costs, and other administrative and professional services.

Interest and Other Income, Net

Interest and other income, net consists of interest earned on our cash equivalents and marketable securities during the period.

Change in Fair Value of Warrant Liability

In connection with the issuance of our Series B Convertible Preferred Stock in 2018, we issued a warrant to purchase our Series B Convertible Preferred Stock. In April 2021, in connection with the SVB Loan and Security Agreement, we issued a warrant to purchase Common Stock. We classified these warrants as a liability on our consolidated balance sheets and we re-measured the warrants to fair value at each reporting date through the settlement date. The corresponding change in fair value of the warrant liability was recognized in our consolidated statements of operations. Upon the closing of the IPO, our Series B Convertible Preferred Stock warrant was automatically converted into warrants to purchase common stock. All of our outstanding warrants were net exercised in September 2021.

Results of Operations

Comparison of the Years Ended December 31, 2022 and 2021

The following table summarizes our consolidated results of operations (in thousands, except percentages):

	Year Ended December 31,		$	%
	2022	2021	Change	Change
Revenue:				
Collaboration revenue	$ —	$ 1,125	$ (1,125)	-100%
Operating expenses:				
Research and development	62,559	36,506	26,053	71%
General and administrative	25,662	12,222	13,440	110%
Total operating expenses	88,221	48,728	39,493	
Loss from operations	(88,221)	(47,603)	(40,618)	
Other income (expense):				
Interest and other income, net	5,213	136	5,077	*
Interest and other expense	(679)	(174)	(505)	290%
Loss on extinguishment of debt	(200)	—	(200)	*
Change in fair value of warrant liability	—	(1,318)	1,318	100%
Net loss	$ (83,887)	$ (48,959)	$ (34,928)	

* *Not meaningful*

Revenue

Collaboration revenue was zero for the year ended December 31, 2022, compared to $1.1 million for the year ended December 31, 2021. Collaboration revenue for the year ended December 31, 2021 consisted of the recognition of deferred revenue under the Genentech Agreement, which was recognized upon termination of the agreement in June 2021.

Research and Development Expenses

The following table summarizes our research and development expenses (in thousands):

	Year Ended December 31,		$
	2022	2021	Change
Direct costs:			
IL-17	$ 29,888	$ 19,595	$ 10,293
Other programs	9,498	5,109	4,389
Indirect costs:			
Personnel-related expenses (including stock-based compensation)	19,686	9,767	9,919
Facilities and other expenses	3,487	2,035	1,452
Total research and development expenses	$ 62,559	$ 36,506	$ 26,053

Research and development expenses were $62.6 million for the year ended December 31, 2022, compared to $36.5 million for the year ended December 31, 2021. The increase of $26.1 million was primarily due to increases of $10.3 million related to our activities for our IL-17 franchise, $4.4 million related to our other preclinical research programs, and $9.9 million related to personnel-related expenses resulting from an increase in headcount and stock-based compensation.

General and Administrative Expenses

General and administrative expenses were $25.7 million for the year ended December 31, 2022, compared to $12.2 million for the year ended December 31, 2021. The increase of $13.4 million was primarily due to increases in personnel-related expenses of $6.4 million resulting from an increase in headcount and stock-based compensation; increases in insurance, legal, accounting fees, and other professional services of $4.9 million largely related to the additional expenses associated with operating as a public company and increases in facilities and other general expenses of $2.1 million.

Interest and other income, net

Interest and other income, net, was $5.2 million for the year ended December 31, 2022, compared to $0.1 million for the year ended December 31, 2021. The increase of $5.1 million was primarily due to interest income earned on investments as a result of investing the cash from our IPO that occurred in September 2021 and our Follow-on Offering that occurred in October 2022, as well as increased interest rates in 2022.

Change in Fair Value of Warrant Liability

Change in fair value of warrant liability for the year ended December 31, 2021 was $1.3 million. Upon the closing of the IPO, our Series B Convertible Preferred Stock warrant was automatically converted into warrants to purchase common stock. All of our outstanding common stock warrants were net exercised in September 2021 and were remeasured as of the settlement date using the fair value of common stock issued in the net settlement.

Liquidity and Capital Resources

Since our inception through December 31, 2022, our operations have been financed primarily by sales of our convertible preferred stock and common stock, through our collaboration agreements, and issuance of debt. In September 2021, we completed our IPO for aggregate proceeds of approximately $214.7 million (inclusive of the full exercise of the underwriters' option to purchase additional shares), net of offering costs, underwriter discounts and commissions. In October 2022, we completed our Follow-on Offering and raised an additional $323.7 million after deducting underwriting discounts and offering costs from the sale of 9,452,054 shares of common stock (inclusive of the full exercise of the underwriters' option to purchase additional shares). As of December 31, 2022, we had $574.2 million of cash, cash equivalents and marketable securities, and an accumulated deficit of $187.6 million.

Based on our current business plans, we believe that our existing cash, cash equivalents and marketable securities will be sufficient to fund our planned operations into 2026. Our cash, cash equivalents and marketable securities include corporate securities and commercial paper, money market funds, government agency securities, and asset-backed securities. We maintain established guidelines relating to diversification and maturities of our investments to preserve principal and maintain liquidity.

Our material cash requirements include our contractual obligations for our operating leases for our corporate headquarters and non-cancelable purchase commitments. Our undiscounted future lease payments are $17.9 million, of which we are obligated to make lease payments of $2.7 million in the next twelve months and we had non-cancelable purchase commitments of $5.0 million due within one year.

Under our credit facility with Silicon Valley Bank ("SVB"), we have an option to borrow up to $30.0 million in additional term loans through February 29, 2024. Amounts borrowed under the credit facility will have a maturity date of May 1, 2027 and will accrue interest at a rate equal to the greater of (i) 0.75% above the WSJ prime rate and (ii) 4.25%. Amounts borrowed under the credit facility will be interest only through June 1, 2024, followed by 36 monthly payments of principal and interest. The credit facility calls for a final payment fee equal to 5.0% of the original principal amount borrowed, due upon the earlier of maturity, prepayment or acceleration of the principal due to an event of default. There is currently no outstanding balance on our credit facility with SVB. With the closure of SVB on March 10, 2023, there can be no assurance that this credit facility will be available to us for borrowing.

Funding Requirements

Our primary use of cash is to fund operating expenses, most significantly research and development expenditures. Cash used to fund operating expenses is impacted by the timing of when we pay these expenses, as reflected in the change in our outstanding accounts payable, accrued expenses and prepaid expenses.

Because of the numerous risks and uncertainties associated with research, development and commercialization of pharmaceutical products, we are unable to estimate the exact amount of our operating capital requirements. Our future funding requirements will depend on many factors, including, but not limited to:

- the scope, timing, progress and results of discovery, preclinical development, laboratory testing and clinical trials for our product candidates;
- the expenses of manufacturing our product candidates for clinical trials and in preparation for marketing approval and commercialization;
- the extent to which we enter into collaborations or other arrangements with additional third parties in order to further develop our product candidates;
- the expenses of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims;
- the expenses and fees associated with the discovery, acquisition or in-license of additional product candidates or technologies;
- our ability to establish additional collaborations on favorable terms, if at all;
- the expenses required to scale up our clinical, regulatory and manufacturing capabilities;
- the expenses of future commercialization activities, if any, including establishing sales, marketing, manufacturing and distribution capabilities, for any of our product candidates for which we receive marketing approval; and
- revenue, if any, received from commercial sales of our product candidates, should any of our product candidates receive marketing approval.

We will need additional funds to meet operational needs and capital requirements for clinical trials, other research and development expenditures, and business development activities. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, we are unable to estimate the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical studies.

Until such time, if ever, as we can generate substantial product revenue, we expect to finance our operations through a combination of equity offerings, debt financings, collaborations, strategic alliances and marketing, distribution or licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, existing stockholders' ownership interests will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect existing stockholders' rights as common stockholders. 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 acquisitions or capital expenditures or declaring dividends. If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or drug 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 or other arrangements when needed, we may be required to delay, limit, reduce or terminate our research, 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.

Cash Flows

The following table summarizes our cash flows for the periods indicated (in thousands):

	Year Ended December 31,	
	2022	2021
Net cash provided by (used in):		
Operating activities	$ (64,322)	$ (39,292)
Investing activities	87,487	(204,624)
Financing activities	322,252	300,254
Net increase in cash, cash equivalents, and restricted cash	$ 345,417	$ 56,338

Net Cash Used in Operating Activities

For the year ended December 31, 2022, net cash used in operating activities was $64.3 million. The net cash outflow from operations primarily resulted from our net loss of $83.9 million, partially offset by non-cash charges of $16.9 million and changes in net operating assets and liabilities of $2.6 million. The non-cash charges consisted primarily of $12.8 million in stock-based compensation, $1.6 million of amortization of operating lease right-of-use assets, $0.8 million for depreciation, $0.6 million of amortization of debt issuance costs, $0.5 million of other non-cash items, $0.4 million of net accretion and amortization of marketable securities, and $0.2 million for the loss on extinguishment of debt. The change in net operating assets and liabilities was primarily due to increases of $2.3 million in accrued liabilities and $1.3 million in accounts payable and a $1.5 million decrease in accounts receivable, partially offset by a $1.2 million decrease in operating lease liabilities and a $1.3 million increase in prepaid expenses and other assets.

For the year ended December 31, 2021, net cash used in operating activities was $39.3 million. The net cash outflow from operations primarily resulted from our net loss of $49.0 million, partially offset by non-cash charges of $8.0 million and changes in net operating assets and liabilities of $1.6 million. The non-cash charges consisted primarily of $5.6 million in stock-based compensation, $1.3 million in the change in fair value of the warrant liability, $0.7 million for depreciation, and $0.4 million of net accretion and amortization of marketable securities. The change in net operating assets and liabilities was primarily due to a $5.6 million increase in accrued liabilities, mainly due to timing of payments, partially offset by a $2.1 million increase in prepaid expenses and other assets, a $0.8 million decrease in accounts payable and a $1.1 million decrease in deferred revenue due to revenue recognition.

Net Cash Provided by (Used in) Investing Activities

For the year ended December 31, 2022, net cash provided by investing activities was $87.5 million due to net maturities of marketable securities of $89.7 million, partially offset by purchases of property and equipment of $2.2 million.

For the year ended December 31, 2021, net cash used in investing activities was $204.6 million due to net purchases of marketable securities of $203.9 million and purchases of property and equipment of $0.7 million.

Net Cash Provided by Financing Activities

For the year ended December 31, 2022, net cash provided by financing activities was $322.3 million due to the net proceeds of $323.7 million from the issuance of our common stock in our Follow-on Offering, net of issuance costs paid to date, cash proceeds from the exercise of stock options of $1.4 million, partially offset by principal payments on the term loan of $2.6 million and payment of issuance costs for Series C preferred units of $0.2 million.

For the year ended December 31, 2021, net cash provided by financing activities was $300.3 million due to the net proceeds of $214.7 million from the issuance of our common stock in our IPO, net of issuance costs paid to date, net proceeds of $83.3 million from the issuance of our Series C and Series C-1 convertible preferred units and the net proceeds of $2.4 million from debt financing.

Critical Accounting Estimates

Management's discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenue generated and expenses incurred during the reporting periods. Our estimates are based on our historical experience, known trends and events and various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. We evaluate our estimates and judgments on an ongoing basis. Actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in Note 2 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K, we believe that the following accounting policies are those most critical to the judgments and estimates used in the preparation of our consolidated financial statements.

Research and Development Expenses and Accrued Research and Development Costs

Research and development costs are expensed as incurred and consist primarily of new product development. Research and development costs include salaries and benefits, consultants' fees, process development costs, stock-based compensation, laboratory supplies, preparation of regulatory submission expenses, and allocated facilities related expenses as well as fees paid to third parties that conduct certain preclinical research and development activities on our behalf.

A substantial portion of our ongoing research and development activities are conducted by third-party service providers. We estimate these expenses based on discussions with internal management personnel and external service providers as to the progress or stage of completion of services and the contracted fees to be paid for such services. We record the estimated costs of research and development activities based upon the estimated amount of services provided but not yet invoiced, and includes these costs in research and development expenses. These costs are accrued based on factors such as estimates of the work completed and in accordance with agreements established with our third-party service providers under the service agreements. We make significant judgments and estimates in determining the accrued liabilities balance in each reporting period and base our estimates on the best information available at the time. If we under-estimate or over-estimate the level of services performed or the costs of these services, our accrued liabilities could differ from our estimates. As actual costs become known, we adjust our accrued liabilities. We have not experienced any material differences between accrued costs and actual costs incurred. However, the status and timing of actual services performed may vary from our estimates, resulting in adjustments to expense in future periods.

Stock-Based Compensation

Stock-based compensation is measured based on the estimated grant date fair value of the award and is recognized as expense on a straight-line basis over the requisite service period (usually the vesting period). Forfeitures are accounted for in the period in which they occur.

We estimate the grant date fair value of profit interest units and stock options using the Black-Scholes option pricing model. The Black-Scholes option pricing model requires the use of several variables and assumptions that require judgment, including the fair value of the underlying common stock, the expected term of the option, the expected volatility of the price of our common stock, the risk-free interest rate, and the expected dividend yield of our common stock. These estimates involve inherent uncertainties and the application of management's judgment. When determining the grant-date fair value of stock-based awards, we further consider whether an adjustment is required to the observable market price or volatility of our common stock that is used in the valuation as a result of material non-public information, if that information is expected to result in a material increase in share price. If factors change and different assumptions are used, our stock-based compensation expense could be materially

different in the future. For example, an increase in the underlying stock price results in an increase in the Black-Scholes option pricing. See Note 12 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K 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

Recent Accounting Pronouncements

See Note 2 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for more information.

Emerging Growth Company and Smaller Reporting Company Status

We are an "emerging growth company," as defined in the JOBS Act. Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies.

We have elected to use this extended transition period to enable us to comply with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our 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," meaning that the market value of our stock held by non-affiliates is less than $700 million as of the end of our most recent second fiscal quarter and our annual revenue was less than $100 million during our most recently completed fiscal year. We may continue to be a smaller reporting company for so long as (i) the market value of our stock held by non-affiliates is less than $250 million or (ii) our annual revenue is less than $100 million during our most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million.

If we are a smaller reporting company at the time we cease to be an emerging growth company ("EGC"), we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to EGCs, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and are not required to provide the information required under this item.

Item 8. Financial Statements and Supplementary Data.

DICE THERAPEUTICS, INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of DICE Therapeutics, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of DICE Therapeutics, Inc. (the Company) as of December 31, 2022 and 2021, the related consolidated statements of operations and comprehensive loss, convertible preferred units and stockholders' equity/members' deficit and cash flows for the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's 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 U.S. 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. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2019.

San Jose, California
March 15, 2023

DICE THERAPEUTICS, INC.
Consolidated Balance Sheets
(In thousands, except share and per share amounts)

	December 31, 2022	December 31, 2021
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 461,393	$ 115,826
Marketable securities	112,832	203,495
Unbilled receivable	—	2,000
Restricted cash, current	—	150
Prepaid expenses and other current assets	3,537	2,440
Total current assets	577,762	323,911
Property and equipment, net	2,921	1,645
Restricted cash	198	198
Operating lease right-of-use assets	13,097	—
TOTAL ASSETS	$ 593,978	$ 325,754
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$ 3,075	$ 1,710
Accrued expenses and other current liabilities	10,650	8,691
Operating lease liabilities, current portion	1,424	—
Term loan, current portion	—	480
Total current liabilities	15,149	10,881
Operating lease liabilities, noncurrent portion	11,841	—
Other noncurrent liabilities	—	8
Term loan, noncurrent portion	—	1,916
TOTAL LIABILITIES	26,990	12,805
Commitments and contingencies (Note 8)		
STOCKHOLDERS' EQUITY		
Preferred stock, $0.0001 par value; 10,000,000 shares authorized, and no shares issued and outstanding	—	—
Common stock, $0.0001 par value; 500,000,000 shares authorized; 47,707,691 and 38,224,299 shares issued and outstanding as of December 31, 2022 and 2021, respectively	5	4
Additional paid-in capital	755,174	416,710
Accumulated deficit	(187,594)	(103,707)
Accumulated other comprehensive loss	(597)	(58)
TOTAL STOCKHOLDERS' EQUITY	566,988	312,949
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 593,978	$ 325,754

See accompanying notes.

DICE THERAPEUTICS, INC.
Consolidated Statements of Operations and Comprehensive Loss
(In thousands, except share and per share amounts)

	Year Ended December 31,	
	2022	**2021**
Revenue:		
Collaboration revenue	$ —	$ 1,125
Operating expenses:		
Research and development	62,559	36,506
General and administrative	25,662	12,222
Total operating expenses	88,221	48,728
Loss from operations	(88,221)	(47,603)
Other income (expense):		
Interest and other income, net	5,213	136
Interest and other expense	(679)	(174)
Loss on extinguishment of debt	(200)	—
Change in fair value of warrant liability	—	(1,318)
Net loss	(83,887)	(48,959)
Other comprehensive loss:		
Unrealized loss on marketable securities	(539)	(58)
Comprehensive loss	$ (84,426)	$ (49,017)
Net loss per share, basic and diluted	$ (2.13)	$ (3.95)
Weighted-average shares used in computing net loss per share, basic and diluted	39,401,106	12,384,015

See accompanying notes.

DICE THERAPEUTICS, INC.
Consolidated Statements of Convertible Preferred Units and Stockholders' Equity/Members' Deficit
(In thousands, except member unit data and share amounts)

	Convertible Preferred Units		Common Units		Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity/Members' Deficit
	Units	Amount	Units	Amount	Shares	Amount				
Balances as of December 31, 2020	12,690,540	$ 107,374	2,248,687	$ —	—	$ —	$ 1,603	$ (54,748)	$ —	$ (53,145)
Issuance of Series C convertible preferred units, net of issuance costs	2,619,994	26,044	—	—	—	—	—	—	—	—
Issuance of Series C-1 convertible preferred units, net of issuance costs	4,446,056	59,705	—	—	—	—	—	—	—	—
Conversion of convertible preferred, common and profit interest units to common stock	(19,756,590)	(193,123)	(2,248,687)	—	24,366,797	2	193,121	—	—	193,123
Conversion of preferred unit warrants to common stock warrants	—	—	—	—	—	—	535	—	—	535
Issuance of common stock in connection with initial public offering, net of issuance costs	—	—	—	—	13,800,000	2	214,706	—	—	214,708
Net exercise of common stock warrants	—	—	—	—	64,648	—	1,224	—	—	1,224
Settlement of fractional shares resulting from reverse stock split	—	—	—	—	(30)	—	—	—	—	—
Forfeiture of unvested common stock	—	—	—	—	(7,116)	—	—	—	—	—
Stock-based compensation	—	—	—	—	—	—	5,581	—	—	5,581
Tax distributions	—	—	—	—	—	—	(60)	—	—	(60)
Other comprehensive loss	—	—	—	—	—	—	—	—	(58)	(58)
Net loss	—	—	—	—	—	—	—	(48,959)	—	(48,959)
Balances as of December 31, 2021	—	—	—	—	38,224,299	4	416,710	(103,707)	(58)	312,949
Issuance of common stock in connection with follow-on public offering, net of issuance costs	—	—	—	—	9,452,054	1	323,655	—	—	323,656
Issuance of common stock upon exercise of stock options	—	—	—	—	84,241	—	1,462	—	—	1,462
Forfeiture of unvested common stock	—	—	—	—	(52,903)	—	—	—	—	—
Stock-based compensation	—	—	—	—	—	—	12,825	—	—	12,825
Issuance of common stock warrant	—	—	—	—	—	—	522	—	—	522
Other comprehensive loss	—	—	—	—	—	—	—	—	(539)	(539)
Net loss	—	—	—	—	—	—	—	(83,887)	—	(83,887)
Balances as of December 31, 2022	—	$ —	—	$ —	47,707,691	$ 5	$ 755,174	$ (187,594)	$ (597)	$ 566,988

See accompanying notes.

DICE THERAPEUTICS, INC
Consolidated Statements of Cash Flows
(In thousands)

	Year Ended December 31,	
	2022	2021
Cash flows from operating activities:		
Net loss	$ (83,887)	$ (48,959)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	825	661
Stock-based compensation	12,825	5,581
Change in fair value of warrant liability	—	1,318
Gain on asset disposal	(28)	—
Amortization of operating lease right-of-use assets	1,598	—
Net accretion and amortization of marketable securities	400	353
Loss on extinguishment of debt	200	—
Amortization and write-off of debt issuance costs	602	107
Other non-cash items	500	—
Changes in operating assets and liabilities:		
Accounts receivable, net	1,500	—
Prepaid expenses and other assets	(1,250)	(2,072)
Accounts payable	1,334	(772)
Accrued expenses and other liabilities	2,271	5,616
Operating lease liabilities	(1,212)	—
Deferred revenue	—	(1,125)
Net cash used in operating activities	(64,322)	(39,292)
Cash flows from investing activities:		
Purchases of property and equipment	(2,237)	(718)
Purchases of marketable securities	(139,252)	(218,471)
Proceeds from maturities of marketable securities	228,976	14,565
Net cash provided by (used in) investing activities	87,487	(204,624)
Cash flows from financing activities:		
Proceeds from issuance of common stock in public offering, net of underwriting discounts and offering costs	323,710	214,707
Proceeds from issuance of convertible preferred units, net of issuance costs	—	83,275
Proceeds from debt financings, net of debt issuance costs	—	2,416
Repayment of term loan	(2,644)	—
Payments of Series C issuance costs	(192)	—
Proceeds from issuance of common stock upon exercise of stock options	1,412	—
Payments of debt issuance costs	(32)	—
Payments on capital lease obligations	—	(99)
Payments for tax distributions	(2)	(45)
Net cash provided by financing activities	322,252	300,254
Net increase in cash, cash equivalents and restricted cash	345,417	56,338
Cash, cash equivalents and restricted cash at beginning of period	116,174	59,836
Cash, cash equivalents and restricted cash at end of period	$ 461,591	$ 116,174
Supplemental non-cash operating information:		
Right-of-use assets obtained in exchange for lease liabilities	$ 14,477	$ —
Interest paid on term loan	$ 76	$ 81
Supplemental non-cash investing and financing information:		
Property and equipment additions included in accounts payable and accrued liabilities	$ 45	$ 209
Issuance costs for convertible preferred units included in accounts payable and accrued liabilities	$ —	$ 192
Public offering costs included in accounts payable and accrued liabilities	$ 54	$ —
Stock option exercise proceeds included in prepaids and other current assets	$ 50	$ —
Reconciliation of cash, cash equivalents and restricted cash to the consolidated balance sheets:		
Cash and cash equivalents	$ 461,393	$ 115,826
Restricted cash	198	348
Total cash, cash equivalents and restricted cash	$ 461,591	$ 116,174

See accompanying notes.

1. Organization and Description of Business

DICE Therapeutics, Inc. ("DICE", or the "Company"), a successor to DiCE Molecules Holdings, LLC ("DiCE LLC"), is a Delaware Corporation headquartered in South San Francisco, California. DICE is a biopharmaceutical company leveraging its proprietary technology platform to build a pipeline of novel oral therapeutic candidates to treat chronic diseases in immunology and other therapeutic areas. The Company's platform, DELSCAPE, is designed to discover selective oral small molecules with the potential to modulate protein-protein interactions ("PPIs") as effectively as systemic biologics.

Initial Public Offering and Corporate Conversion

On September 17, 2021, the Company closed its initial public offering (the "IPO") in which it sold an aggregate of 13,800,000 shares of common stock at a price to the public of $17.00 per share, which included 1,800,000 shares issued upon the full exercise by the underwriters of their option to purchase additional shares of common stock. The Company received aggregate net proceeds from the IPO of approximately $214.7 million, after deducting underwriting discounts and commissions.

In contemplation of the IPO, on September 14, 2021, the Company completed the conversion (the "Conversion"), which included the following: DiCE Molecules Holdings LLC, converted from a Delaware limited liability company to a Delaware corporation by filing a certificate of conversion with the Secretary of State of the State of Delaware; and changed its name to DICE Therapeutics, Inc.

As part of the Conversion:

- holders of Series A-1 convertible preferred units of DiCE LLC received one share of Series A-1 convertible preferred stock of the Company for each unit of Series A-1 convertible preferred units held immediately prior to the Conversion;
- holders of Series A-2 convertible preferred units of DiCE LLC received one share of Series A-2 convertible preferred stock of the Company for each unit of Series A-2 convertible preferred units held immediately prior to the Conversion;
- holders of Series B convertible preferred units of DiCE LLC received one share of Series B convertible preferred stock of the Company for each unit of Series B convertible preferred units held immediately prior to the Conversion;
- holders of Series C convertible preferred units of DiCE LLC received one share of Series C convertible preferred stock of the Company for each unit of Series C convertible preferred units held immediately prior to the Conversion;
- holders of Series C-1 convertible preferred units of DiCE LLC received one share of Series C-1 convertible preferred stock of the Company for each unit of Series C-1 convertible preferred units held immediately prior to the Conversion;
- holders of common units of DiCE LLC received one share of common stock of the Company for each common unit held immediately prior to the Conversion; and
- each outstanding profit interest unit in DiCE LLC, all of which were intended to constitute profits interests for U.S. federal income tax purposes, converted into a number of shares of common stock of the Company based upon a conversion price determined by the board of directors. The conversion price was determined as the difference between the IPO price of $17.00 per share and the participating threshold for each profit interest unit. The Company issued 2,361,520 common stock shares upon conversion of profit interest units of DiCE LLC, of which 1,141,403 common stock shares continue to vest as per the original vesting terms of the profit interest awards.

The Company continues to hold all property and assets of DiCE LLC and assumed all of the debts and obligations of DiCE LLC. The Conversion was a tax-free reorganization, that included authorization to issue to capital stock consisting of 500,000,000 shares of common stock, $0.0001 par value per share, and 10,000,000 shares of undesignated preferred stock, $0.0001 par value per share.

Immediately prior to the closing of the IPO, 19,756,590 of convertible preferred stock issued by the Company in the Conversion converted into an equal number of shares of common stock.

October 2022 Public Offering

On October 17, 2022, the Company closed an underwritten follow-on public offering ("Follow-on Offering") in which it sold an aggregate of 9,452,054 shares of common stock, which included the exercise in full by the underwriters of their option to purchase 1,232,876 shares of common stock, at an offering price of $36.50 per share. Proceeds from the Follow-on Offering were approximately $323.7 million, after deducting underwriting discounts and offering costs.

Liquidity

The Company has incurred significant operating losses since inception and has relied primarily on public and private equity to fund its operations. As of December 31, 2022, the Company had an accumulated deficit of $187.6 million. The Company expects to continue to incur substantial losses, and its ability to achieve and sustain profitability will depend on the successful development, approval, and commercialization of product candidates and on the achievement of sufficient revenue to support its cost structure. The Company may never achieve profitability, and until then, the Company will need to continue to raise additional capital. As of December 31, 2022, the Company had cash, cash equivalents, and marketable securities of $574.2 million. Based on the current plan, the Company believes that its cash, cash equivalents, and marketable securities as of December 31, 2022 provide sufficient capital resources to continue its operations for at least twelve months from the issuance date of these consolidated financial statements.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States ("GAAP") as defined by the Financial Accounting Standards Board ("FASB").

Consolidation

The consolidated financial statements include the accounts of DICE Therapeutics, Inc. and its wholly owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of the accompanying consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenue and expense during the reporting period. The Company evaluates its estimates, including those related to revenue recognition, the fair value of convertible preferred stock warrants and common stock warrants, income taxes uncertainties, stock-based compensation, including the fair value of common stock, lease assets and liabilities, clinical trial accruals, and related assumptions on an ongoing basis using historical experience and other factors that are believed to be reasonable under the circumstances, and adjusts those estimates and assumptions when facts and circumstances dictate. Actual results could differ from these estimates.

Segments

The Company has a single operating segment. The Company's chief decision maker, its Chief Executive Officer, manages the Company's operations on a consolidated basis for purposes of allocating resources, making operating decisions, and evaluating performance.

Concentration of Credit Risk

Cash and cash equivalents and marketable securities are financial instruments that potentially subject the Company to concentrations of credit risk. Cash and cash equivalents are deposited in checking and sweep accounts at a financial institution. Deposits may, at times, exceed federally insured limits. The Company has not experienced any losses on its deposits of cash and cash equivalents. The Company invests in money market funds, treasury bills

and notes, government bonds, commercial paper, corporate notes, and asset-backed securities. The Company limits its credit risk associated with cash and cash equivalents and marketable securities by placing them with banks and institutions which management believes are credit-worthy and in highly rated investments in accordance with the Company's investment policy.

Cash, Cash Equivalents and Restricted Cash

Cash and cash equivalents consist of highly liquid investments with original maturities of three months or less at the date of purchase. Restricted cash consists of funds in a money market account that serves as collateral for a lease agreement.

Marketable Securities

Investments are classified as available-for-sale securities and are carried at fair value, based upon quoted market prices. The Company considers its available-for-sale portfolio as available for use in current operations. Accordingly, the Company classifies certain investments as short-term marketable securities, even though the stated maturity date may be one year or more beyond the current balance sheet date. Unrealized gains and losses, deemed temporary in nature, are reported as a separate component of accumulated other comprehensive income (loss). A decline in the fair value of any security below cost that is deemed other than temporary results in a charge to earnings and the corresponding establishment of a new cost basis for the security. Dividend and interest income are recognized when earned and included in interest and other income, net. Realized gains and losses are included in earnings and the cost of securities sold is determined using the specific-identification method.

Fair Value of Financial Instruments

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability, or an exit price, in the principal or most advantageous market for that asset or liability in an orderly transaction between market participants on the measurement date.

Fair value is measured based on a three-level hierarchy of inputs, of which the first two are considered observable and the last unobservable. Unobservable inputs reflect the Company's own assumptions about current market conditions. The use of observable inputs is maximized, where available, and the use of unobservable inputs is minimized when measuring fair value. The three-level hierarchy of inputs is as follows:

Level 1—Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2—Quoted prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the related assets or liabilities; and

Level 3—Unobservable inputs that are significant to the measurement of the fair value of the assets or liabilities that are supported by little or no market data.

To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised in determining fair value is greatest for instruments categorized in Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

The carrying amounts reflected in the consolidated balance sheets for cash and cash equivalents, restricted cash, accounts receivable, accounts payable and accrued liabilities approximate their fair values due to their short-term nature.

Property and Equipment

Property and equipment are stated at cost, net of accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of the respective assets which range from three to five years. Leasehold improvements are amortized over the shorter of the lease term or their estimated useful life. When assets are retired or otherwise disposed of, the cost and related accumulated depreciation are removed from the consolidated balance sheets and any resulting gain or loss is reflected in the consolidated statements of operations in the period realized. Maintenance and repairs are charged to the consolidated statements of operations as incurred.

Leases

The Company adopted Accounting Standards Codification ("ASC") Topic 842, "Leases" ("ASC 842") on January 1, 2022 using the modified retrospective method. Under this method, financial statements for periods after the adoption date are presented in accordance with ASC 842 and prior-period financial statements continue to be presented in accordance with ASC 840, the accounting standard originally in effect for such periods. Under ASC 842, the Company determines if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use ("ROU") assets and the current and noncurrent operating lease liabilities are included as operating lease liabilities in the Company's consolidated balance sheets.

ROU 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 ROU assets and liabilities are recognized based on the present value of lease payments over the lease term at the commencement date of the lease and any amounts probable of being owed under a residual value guarantee (if applicable). ROU assets also include any initial direct costs incurred and any lease payments made at or before the lease commencement date, less any lease incentive received. As the Company's leases do not provide an implicit interest rate, the Company uses its incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the expected lease term.

The Company excludes from its consolidated balance sheet recognition of leases having a term of 12 months or less (short-term leases) and does not separate lease components and non-lease components for its real estate leases. The Company's non-lease components are primarily related to property maintenance, which varies based on future outcomes, and is recognized in rent expense when incurred.

Impairment of Long-Lived Assets

Long-lived assets are evaluated for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or asset group may not be fully recoverable. Recoverability is measured by comparing the carrying amount of the asset or asset group to the future net undiscounted cash flows which 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 carrying amount of the asset or asset group exceeds the projected discounted future net cash flows arising from the asset. The Company has not identified any such impairment losses to date.

Warrants

The Company accounts for its freestanding warrants in accordance with applicable accounting guidance as either liability-classified or equity-classified instruments depending on the specific terms of the warrant agreement. Liability-classified warrants are recorded at fair value upon issuance and re-measured at each reporting period until the earlier of the exercise of the warrants, the expiration of the warrants, or until such time as the warrants are no longer considered liability instruments. Changes in the fair value of liability-classified warrants are recognized as a component of other income (expense) in the consolidated statements of operations. Equity-classified warrants are recorded at fair value within additional paid-in capital at the time of issuance and not subject to remeasurement.

Revenue Recognition

The Company recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the Company expects to receive to in exchange for those goods or services. To determine revenue recognition for customer contracts, the Company performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. The Company only applies the five-step model to contracts when it is probable that it will collect the consideration it is entitled to in exchange for the goods and services it transfers to the customer. At contract inception, the Company assesses the goods or services promised within each contract that falls under the scope of ASC Topic 606, Revenue from Contracts with Customers, and determines those that are performance obligations and assesses whether each promised good or service is distinct. The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

The Company has entered into collaboration agreements under which it may obtain upfront license fees, research and development funding, and development, regulatory and commercial milestone payments and royalty payments. The Company's performance obligations under these arrangements may include licenses of intellectual property, and research and development services. In the collaboration agreements, the Company had a performance obligation to perform research and development services to identify compounds as therapeutic candidates against identified targets. The revenue was recognized as the research and development services were being performed and the results of the research and development services were provided to the customer. The customers had options to elect commercial licenses of intellectual property. As the customer options were not considered to be a material right, customer options were accounted for as separate contracts if and when they are exercised by the customer.

For collaborative arrangements under which the Company is eligible to receive milestone payments, the Company evaluates whether the milestones are considered probable of being reached and estimates the amount to be included in the transaction price. If it is probable that a significant revenue reversal would not occur, the associated milestone value would be included in the transaction price. Milestone payments that are not within the Company's or the licensee's control, such as regulatory approvals, are generally not considered probable of being achieved until those approvals are received.

For collaborative arrangements under which the Company is eligible to receive sales-based royalties, including milestone payments based on the level of sales, and in which the license is deemed to be the predominant item to which the royalties relate, the Company would recognize revenue when the related sales occur to earn the royalty or sales-based milestone payments.

Upfront payments and fees are recorded as deferred revenue upon receipt or when due, and may require deferral of revenue recognition to a future period until the Company performs its obligations under these arrangements. Amounts payable to the Company are recorded as accounts receivable when the Company's right to consideration is unconditional.

Research and Development Expenses and Accrued Research and Development Costs

Research and development costs are expensed as incurred and consist primarily of direct and indirect costs incurred for the discovery and development of therapeutic candidates. Research and development costs include salaries and benefits, stock-based compensation, consultant fees, manufacturing and process development costs, laboratory supplies, preparation of regulatory submission expenses, and allocated facilities related expenses, as well as fees paid to third parties that conduct certain preclinical and clinical activities on the Company's behalf.

A substantial portion of the Company's ongoing research and development activities are conducted by third-party service providers. Such activities include preclinical studies, clinical trials and other research services. The Company estimates these expenses based on discussions with internal management personnel and external service providers as to the progress or stage of completion of services and the contracted fees to be paid for such services. The Company records the estimated costs of research and development activities based upon the estimated amount of services provided but not yet invoiced, and includes these costs in research and development expenses. These costs are accrued based on factors such as estimates of the work completed and in accordance with agreements established with its third-party service providers under the service agreements. As actual costs become known, the Company adjusts its accrued liabilities.

Stock-Based Compensation

Stock-based compensation is measured based on the estimated grant date fair value of the award and is recognized as expense on a straight-line basis over the requisite service period (usually the vesting period). Forfeitures are accounted for in the period in which they occur.

The Company estimates the grant date fair value of profit interest units and stock options using the Black-Scholes option pricing model. When determining the grant-date fair value of stock-based awards, management further considers whether an adjustment is required to the observable market price or volatility of the Company's common stock that is used in the valuation as a result of material non-public information, if that information is expected to result in a material increase in share price. The Black-Scholes option pricing model requires the use of several variables and assumptions that require judgment, as discussed below.

Fair Value of Common Units and Common Stock—Prior to the IPO in September 2021, because there had been no public market for the Company's common units, the fair value of common units was determined by the Company's Board of Managers with assistance of third-party valuation specialists. The Board of Managers exercised reasonable judgment and considered a number of objective and subjective factors to determine the best estimate of fair value. After completion of the IPO, the fair value of common stock is based on the closing market price on the date of grant.

Expected Term—The expected term represents the period that stock-based awards are expected to be outstanding. Prior to the IPO, the Company's profit interest units did not have a contractual term. However, there was a constructive maturity of the profit interest units based on the expected exit or liquidity scenarios for the Company. After the completion of the IPO, the Company's historical stock option exercise information is limited due to a lack of sufficient data points and therefore does not provide a reasonable basis upon which to estimate an expected term. The Company has elected to use the simplified method for estimating the expected term, which is calculated as the mid-point between the vesting date and the contractual term.

Expected Volatility—Expected volatility is estimated based on the average historical volatilities of comparable public peer companies within its industry over a period equal to the expected term. Beginning in 2022, expected volatility also takes into consideration the Company's own historical volatility since its IPO. The comparable companies were chosen based on the similar size, stage in the life cycle, or area of specialty. 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.

Risk-Free Interest Rate—The risk-free interest rate is based on the U.S. Treasury zero-coupon yield in effect at the measurement date with maturities approximately equal to the expected term.

Expected Dividend Rate—The expected dividend rate is zero as the Company has never paid cash dividends and currently has no intention to pay cash dividends.

Net Loss Per Share

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 for potentially dilutive securities. Shares of restricted stock subject to future vesting are excluded from the weighted-average number of common shares. Diluted net loss per share is calculated by adjusting the weighted-average number of common shares outstanding for the dilutive effect of common stock equivalents outstanding for the period, determined using the treasury-stock method. For purposes of the diluted net loss per share calculation, shares of restricted stock subject to future vesting, options to purchase common stock, and warrants to purchase common stock are considered to be common stock equivalents, but have been excluded from the calculation of diluted net loss per share for each period presented, as their effect would be anti-dilutive given the net loss of the Company.

Comprehensive Loss

Comprehensive loss is comprised of net loss and changes in accumulated other comprehensive income (loss) on the Company's marketable securities related to unrealized gains and losses.

Income Taxes

Income taxes are accounted for under the asset and liability method. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Management makes an assessment of the likelihood that the resulting deferred tax assets will be realized. A valuation allowance is provided when it is more likely than not that some portion or all of a deferred tax asset will not be realized. Due to the Company's historical operating performance and the recorded cumulative net losses in prior fiscal periods, the net deferred tax assets have been fully offset by a valuation allowance.

The Company recognizes liabilities for uncertain tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained upon examination. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon settlement. The Company recognizes interest accrued related to unrecognized tax benefits and penalties in the provision for income taxes.

Recently Adopted Accounting Pronouncements

In 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Updates 2016-02, Leases ("ASU 2016-02"), with amendments issued in 2018 and 2019, which amended existing guidance to require substantially all leases to be recognized by lessees on their balance sheet as a right-of-use ("ROU") asset and corresponding lease liability, including leases previously accounted for as operating leases. The Company adopted ASC 842 effective January 1, 2022. The Company elected the optional package of practical expedients to not reassess: (i) whether any expired or existing contracts are or contain leases; (ii) lease classification for any expired or existing leases; and (iii) whether initial direct costs qualify for capitalization on any existing leases. Upon adoption of ASC 842, on January 1, 2022, the Company recorded operating lease ROU assets of $0.5 million, operating lease liabilities of $0.5 million and derecognized the deferred rent liability of $8,000.

In August 2020, the FASB issued Accounting Standards Updates 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): Accounting for Convertible Instruments and Contracts in Entity's Own Equity ("ASU 2020-06"), which simplifies accounting for certain financial instruments. ASU 2020-06 eliminates the current models that require separation of beneficial conversion and cash conversion features from convertible instruments and simplifies the derivative scope exception guidance pertaining to equity classification of contracts in an entity's own equity. The new standard also introduces additional disclosures for convertible debt and freestanding instruments that are indexed to and settled in an entity's own equity. ASU 2020-06 amends the diluted earnings per share guidance, including the requirement to use the if-converted method for all convertible instruments. ASU 2020-06 is effective for fiscal years beginning after December 15, 2023, including interim periods within those fiscal years, with early adoption permitted. The Company adopted ASU 2020-06 on January 1, 2022. The adoption of ASU 2020-06 did not have a material impact on the Company's financial statements.

Recently Issued Accounting Pronouncements Not Yet Adopted

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments—Credit Losses: Measurement of Credit Losses on Financial Instruments ("Topic 326")*. This standard requires measurement and recognition of expected credit losses for financial assets. The FASB subsequently issued clarifications to this standard. This standard will become effective for the Company on January 1, 2023. The Company does not expect the adoption of this standard to have a material impact on its consolidated financial statements and related disclosures.

3. Fair Value Measurements

The following tables present the Company's assets and liabilities that are measured at fair value on a recurring basis by level within the fair value hierarchy (in thousands):

	December 31, 2022			
	Level 1	Level 2	Level 3	Total
Money market funds	$ 459,184	$ —	$ —	$ 459,184
US treasury securities	24,570	—	—	24,570
Corporate securities and commercial paper	—	80,266	—	80,266
Asset-backed securities	—	7,996	—	7,996
Total assets measured at fair value	$ 483,754	$ 88,262	$ —	$ 572,016

	December 31, 2021			
	Level 1	Level 2	Level 3	Total
Money market funds	$ 115,410	$ —	$ —	$ 115,410
US treasury securities	24,053	—	—	24,053
Government treasury and agency securities	—	7,600	—	7,600
Corporate securities and commercial paper	—	150,037	—	150,037
Asset-backed securities	—	21,805	—	21,805
Total assets measured at fair value	$ 139,463	$ 179,442	$ —	$ 318,905

The following table presents the changes in fair values of the Company's convertible preferred stock warrants and common stock warrants, classified as level 3 financial liabilities (in thousands):

	Year Ended December 31, 2021
Beginning balance	$ 314
Fair value of warrants issued in connection with debt financing	127
Change in fair value	1,318
Conversion of convertible preferred stock warrants to common stock warrants upon the closing of the IPO	(535)
Reclassification of fair value of warrants to equity upon the net exercise of warrants	(1,224)
Ending balance	$ —

Prior to settlement, the fair value of the warrant liability was estimated using a hybrid approach between a probability-weighted expected return method ("PWERM") and an option pricing model ("OPM"), which estimated the probability weighted value across multiple liquidity scenarios, while using OPM to estimate the allocation of value within one or more of those scenarios. The Company considered various scenarios, including a scenario in which the Company completed an IPO, a scenario in which the Company remained private, and a scenario contemplating a merger or acquisition.

There were no transfers into or out of Level 3 during the years ended December 31, 2022 and 2021.

4. Investments

The amortized cost, unrealized gain and loss, and fair value of the Company's investments in marketable securities by major security type are as follows (in thousands):

	December 31, 2022			
	Amortized Cost	Unrealized Gain	Unrealized Loss	Fair Value
Money market funds	$ 459,184	$ —	$ —	$ 459,184
US treasury securities	24,715	—	(145)	24,570
Corporate securities and commercial paper	80,706	—	(440)	80,266
Asset-backed securities	8,008	—	(12)	7,996
Total financial assets	$ 572,613	$ —	$ (597)	$ 572,016

	December 31, 2021			
	Amortized Cost	Unrealized Gain	Unrealized Loss	Fair Value
Money market funds	$ 115,410	$ —	$ —	$ 115,410
US treasury securities	24,056	1	(4)	24,053
Government treasury and agency securities	7,606	—	(6)	7,600
Corporate securities and commercial paper	150,074	3	(40)	150,037
Asset-backed securities	21,817	—	(12)	21,805
Total financial assets	$ 318,963	$ 4	$ (62)	$ 318,905

Investments with unrealized losses have been in a loss position for less than twelve months, and the unrealized losses were considered to be temporary in nature. Unrealized losses as of December 31, 2022 are attributed to changes in market interest rates. The Company does not intend to sell the investments in an unrealized loss position and it is not more likely than not that the Company will be required to sell the investments before recovery of their amortized cost basis. During the years ended December 31, 2022 and 2021, there have been no significant realized gains or losses on available-for-sale investments.

As of December 31, 2022, the remaining maturity of the Company's marketable securities was less than one year.

5. Balance Sheet Components

Property and Equipment, Net

Property and equipment, net consists of the following (in thousands):

	December 31,	
	2022	2021
Machinery and equipment	$ 4,276	$ 4,139
Leasehold improvements	1,155	103
Computer equipment	351	73
Furniture and fixtures	469	199
Construction-in-progress	—	358
Total property and equipment, gross	6,251	4,872
Less accumulated depreciation and amortization	(3,330)	(3,227)
Total property and equipment, net	$ 2,921	$ 1,645

Depreciation expense was $0.8 million and $0.7 million for the years ended December 31, 2022 and 2021, respectively.

Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consist of the following (in thousands):

	December 31,	
	2022	2021
Accrued research and development	$ 5,197	$ 4,023
Accrued employee related costs	4,262	1,957
Accrued clinical trial costs	196	1,672
Accrued general and administrative	964	756
Other accrued expenses and liabilities	31	283
Total accrued expenses and other current liabilities	$ 10,650	$ 8,691

6. Collaboration Revenue

2015 Sanofi Collaboration Agreement

In December 2015, the Company entered into a license and collaboration agreement (the "Sanofi Agreement") with Aventis, Inc. ("Sanofi"), which was amended and restated in August 2017 (as amended, the "2015 Collaboration Agreement"). Under the Sanofi Agreement, the Company agreed to provide research services on identified targets and to grant Sanofi an exclusive option to license to develop and commercialize (as applicable), certain compounds into products within the time frames specified therein. In particular, the Company agreed to identify, in two or more screening libraries, compounds that bind to seven agreed upon immuno-oncology targets and to generate collaboration compounds for use by Sanofi to develop and commercialize collaboration products.

No revenue was recognized related to the Sanofi Agreement, as amended for the years ended December 31, 2022 and 2021. In March 2022, Sanofi notified the Company that it no longer intended to develop therapeutic candidates under the Sanofi Agreement and terminated the agreement effective as of July 13, 2022. As a result, the Company regained worldwide rights to the previously partnered oral immuno-oncology program in July 2022.

Under the Sanofi Agreement, the Company earned Sum of the Evidence ("SOE") points depending on the milestone achieved and Sanofi's elections. In connection with this right, the Company recognized $2.0 million in revenue in 2018, when SOE points were earned. The contract asset is recorded as an unbilled receivable of $2.0 million in the consolidated balance sheets as of December 31, 2021. In August 2022, the Company reached a negotiated settlement of the receivable of $1.5 million. As of December 31, 2022 the receivable was collected and all related performance obligations have been satisfied.

2017 Genentech Collaboration Agreement

In November 2017, the Company entered into a collaboration agreement (the "Genentech Agreement") with Genentech, Inc. ("Genentech"). Under the 2017 Collaboration Agreement, the Company was entitled to receive a one-time target access fee for each of the collaboration targets designated. The research collaboration with respect to each collaboration target had a two-year term that commenced upon the Company's initiation of certain research activities, unless terminated earlier under the terms of the Collaboration Agreement.

Upon execution of the Genentech Agreement, Genentech designated certain collaboration targets and paid the Company a $4.5 million target access fee. In 2018, Genentech paid the Company an additional $1.5 million in target access fees. The Company's performance obligation under the collaboration consists of research services. The revenue related to the performance obligation was recognized when the research services were completed and delivered to Genentech.

The Company initiated research activities on the active collaboration targets in March 2018 and submitted five milestone packages for Genentech to review in 2019. The Company recognized collaboration revenue upon the completion of the milestone packages and research services. In June 2021, the Genentech Agreement was terminated, and the Company recognized the remaining $1.1 million of deferred revenue as collaboration revenue for the year ended December 31, 2021. No revenue was recognized for the year ended December 31, 2022.

7. Leases

In June 2021, the Company entered into a lease agreement for a new office space in South San Francisco, California. The lease has an initial term of seven years, beginning on the lease commencement date of March 25, 2022, with an option to extend the lease for an additional period of five years. Under the terms of the lease, the Company is required to maintain a letter of credit for the benefit of the landlord in the amount of $0.2 million, commencing on the effective date of the agreement until the expiration of the lease. The deposit related to the letter of credit is included within restricted cash in the consolidated balance sheets.

The Company leased its former headquarters with its main offices and laboratory facilities in South San Francisco under a sublease agreement that ended in April 2022.

As of December 31, 2022, the weighted-average remaining lease term was 6.3 years and the weighted-average incremental borrowing rate used to determine the operating lease liability was 10.0%. As of December 31, 2022, the future minimum payments under operating lease liabilities were as follows (in thousands):

	Amount
2023	$ 2,665
2024	2,738
2025	2,814
2026	2,891
2027	2,971
Thereafter	3,821
Total undiscounted lease payments	17,900
Less: imputed interest	(4,635)
Total lease liabilities	13,265
Less: lease liabilities – current portion	1,424
Lease liabilities – noncurrent portion	$ 11,841

Total lease cost for the year ended December 31, 2022 was $3.5 million; total rent expense for the year ended December 31, 2021 was $1.4 million. The components of lease costs, which were included in selling, general, and administrative, net in its consolidated statements of operations, were as follows (in thousands):

	Year Ended December 31, 2022
Operating lease cost	$ 2,618
Variable lease cost	873
Total lease cost	$ 3,491

8. Commitments and Contingencies

Purchase Commitments

The Company enters into contracts in the normal course of business that include, among other things, arrangements with CROs for clinical trials, vendors for preclinical research, and vendors for manufacturing. These contracts generally provide for termination upon notice, and therefore the Company believes that its obligations under these agreements are not material. As of December 31, 2022, the Company had non-cancelable purchase commitments of $5.0 million due within one year.

Legal Proceedings

From time to time, the Company may become involved in various legal proceedings arising from the ordinary course of business. The Company is not subject to any material legal proceedings, and to the best of its knowledge, no material legal proceedings are currently pending or threatened.

Indemnification

In the ordinary course of business, the Company often includes standard indemnification provisions in its arrangements with its partners, suppliers and vendors, among others. Pursuant to these provisions, the Company may be obligated to indemnify such parties for losses or claims suffered or incurred in connection with its service, breach of representations or covenants, intellectual property infringement or other claims made against such parties. These provisions may limit the time within which an indemnification claim can be made. It is not possible to determine the maximum potential amount under these indemnification obligations due to the limited history of prior indemnification claims and the unique facts and circumstances involved in each particular agreement. The Company has not incurred any material costs as a result of such indemnifications and has not accrued any liabilities related to such obligations in these consolidated financial statements as management believes such liability is immaterial.

In addition, the Company has entered into indemnification agreements with directors and certain officers and employees that will require the Company, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors, officers or employees. No demands have been made upon the Company to provide indemnification under such agreements, and thus, there are no claims that the Company is aware of that could have a material effect on the Company's consolidated financial statements. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is not specified in the agreements. However, the Company currently has directors' and officers' insurance that reduces its exposure and may enable the Company to recover a portion of any future amounts paid.

9. Debt

Loan and Security Agreement

On April 13, 2021, the Company entered into a senior secured term loan facility with Silicon Valley Bank ("SVB") (the "SVB Loan and Security Agreement"), which provided for a $10.0 million term loan, of which $2.5 million was drawn (the "Term Loan"). On June 27, 2022, the Company entered into the Joinder and First Amendment to Loan and Security Agreement (the "Amendment") with SVB. The Amendment amends certain key terms of the SVB Loan and Security Agreement (together the "Credit Facility") to among other things: (1) provide additional term loan advances of up to $30.0 million ("Additional Term Loan Advances"); (2) extend the draw period from June 30, 2022 to February 29, 2024; (3) extend the maturity date from February 1, 2025 to May 1, 2027; and (4) reduce the per annum interest rate from the greater of (i) 1.75% above the WSJ prime rate and (ii) 5.0%, to the greater of (i) 0.75% above the WSJ prime rate and (ii) 4.25%. Amounts borrowed under the Additional Term Loan Advances will be interest only through June 1, 2024, followed by 36 monthly payments of principal and interest. There is no required minimum draw or financial covenants associated with the Credit Facility, as amended. The Credit Facility calls for a final payment fee equal to 5.0% of the original principal amount borrowed under the Additional Term Loan Advances, due upon the earlier of maturity, prepayment or acceleration of the principal due to an event of default.

Upon execution of the Amendment, the Company repaid the $2.5 million Term Loan and the final payment fee of $0.1 million. Per the Amendment, the associated prepayment fee was waived. As of December 31, 2022, there was no outstanding balance on the Credit Facility.

The Company recorded a loss on extinguishment of debt of approximately $0.2 million in the consolidated statements of operations during the year ended December 31, 2022, representing the difference between the carrying amount of the Term Loan and the amount paid to retire the Term Loan.

In conjunction with the Amendment, the Company issued to SVB a warrant to purchase up to 42,349 shares of the Company's common stock at an exercise price of $14.43 per share. If the Company draws down any portion of the additional $10.0 million term loan, the amount of common stock issuable upon exercise of the warrant will increase by up to 21,174 shares. The warrant has a cashless exercise provision allowing the holder, in lieu of payment of the aggregate exercise price, to surrender to the Company shares having an aggregate value equal to the aggregate exercise price, based on the fair market value of the Company's common stock at the time of exercise. The Company estimated the fair value of the warrant on the date of issuance using the Black-Scholes model.

The Company incurred financing expenses related to the Amendment of approximately $0.6 million (including the fair value of the warrant) during the year ended December 31, 2022.

In connection with the Credit Facility, the Company recognized interest expense, including amortization of the debt discount, of $0.3 million and $0.2 million for the years ended December 31, 2022 and 2021, respectively.

On March 10, 2023, SVB was closed by the California Department of Financial Protection and Innovation, which also appointed the Federal Deposit Insurance Corporation ("FDIC") as receiver. With the closure of SVB, there can be no assurance that this credit facility will be available to the Company for borrowing.

10. Convertible Preferred Units and Stockholders' Equity/Members' Deficit

Convertible Preferred Units

In December 2020, the Company entered into the Series C Convertible Preferred Unit Purchase Agreement ("Series C Agreement") for the issuance of up to 7,859,623 Series C Convertible Preferred Units at a price of $10.37 per unit. In the same month, the Company issued 5,239,629 Series C Convertible Preferred Units at a price of $10.37 per unit for net proceeds of $51.7 million (net of $2.7 million in issuance costs). In July 2021, the Company issued and sold the remaining 2,619,994 shares of Series C Convertible Preferred Units at a price of $10.37 per share for net proceeds of $26.0 million, net of $1.1 million in issuance costs. In August 2021, the Company issued and sold an aggregate of 4,446,056 shares of Series C-1 Convertible Preferred Units at a price of $13.50 per share for net proceeds of $59.7 million, net of $0.3 million in issuance costs. In September 2021, the Company completed the Conversion in which all outstanding convertible preferred units were converted into an equal number of shares of convertible preferred stock. Immediately prior to the closing of the IPO (See Note 1), all of the then-outstanding shares of convertible preferred stock converted into 19,756,590 shares of common stock.

Common stock

The holders of the Company's common stock have one vote for each share of common stock. Common stockholders are entitled to dividends when, as, and if declared by the Board of Directors. The holders have no preemptive or other subscription rights and there are no redemption or sinking fund provisions with respect to such shares. As of December 31, 2022, no dividends had been declared by the Board of Directors.

11. Warrants

Convertible Preferred Stock Warrants

On the closing of the IPO, the 64,003 aggregate outstanding convertible preferred stock warrants converted into 64,003 common stock warrants with an exercise price of $8.64 per share, which resulted in the reclassification of the convertible preferred stock warrant liability of $0.5 million to additional paid-in capital. In September 2021, all of these common stock warrants were net exercised into 31,460 shares of common stock.

Common Stock Warrants

In September 2021, common stock warrants, issued to SVB in April 2021 in connection with the SVB Loan and Security Agreement, to purchase 38,058 shares of the Company's stock at an exercise price of $4.72 per share

were net exercised into 33,188 shares of common stock, which resulted in the reclassification of the common stock warrant liability of $1.2 million to additional paid-in capital.

As of December 31, 2022, the Company has an outstanding common stock warrant, issued to SVB in June 2022 in conjunction with the Amendment, to purchase 42,349 shares of common stock at an exercise price of $14.43 per share. The outstanding warrant expires on June 26, 2032. As of December 31, 2021, there were no warrants outstanding.

12. Stock-Based Compensation

2014 Equity Incentive Plan

Prior to the Conversion, the Company granted profit interest units under the 2014 Equity Incentive Plan (the "2014 Plan"). Under the provisions of the 2014 Plan, the Board of Managers granted profit interest units ("PI Units") to employees, managers, and consultants (collectively, the "Participants"). PI Units were Common Units that were issued to Participants with a threshold amount. In the event of a distribution by the Company, the proceeds distributed to the holder would be reduced by the threshold amount. PI Units were economically similar to a stock option award and vested based on time or performance-based milestones, as determined by the Board of Managers and stipulated in the grant agreements.

Profit interest units generally vested 25% after one-year with the remainder vesting monthly over the following three-year period. The Company has determined that the underlying terms and intended purpose of the PI Units are more akin to an equity-based compensation for employees and non-employees than a performance bonus or profit-sharing arrangement.

Immediately prior to consummation of the IPO, all of the outstanding PI Units were converted into 2,361,520 shares of common stock, of which 1,141,403 were subject to certain vesting conditions. The following table provides a summary of the unvested common stock activity for the year ended December 31, 2022:

	Number of Shares	Weighted-Average Grant Date Fair Value
Unvested as of December 31, 2021	1,028,389	$ 6.76
Vested	(410,266)	$ 6.35
Forfeited	(52,903)	$ 13.78
Unvested as of December 31, 2022	565,220	$ 6.62

The weighted-average grant date fair value of PI Units granted during the year ended December 31, 2021 was $5.03. The aggregate intrinsic value of common stock that vested during the years ended December 31, 2022 and 2021 was $2.6 million and $0.5 million, respectively. The aggregate intrinsic value of restricted stock awards outstanding on December 31, 2022 was $17.6 million.

The estimated grant-date fair value of all the Company's PI Units was calculated using the Black-Scholes option pricing model, based on the following assumptions:

	Year Ended December 31, 2021
Expected term (in years)	5.5 - 6.1
Expected volatility	75%
Risk-free interest rate	0.74% - 1.10%
Expected dividend rate	—

2021 Equity Incentive Plan

In September 2021, the Company's board of directors and stockholders adopted and approved the 2021 Equity Incentive Plan ("2021 Plan"), which became effective in connection with the IPO. The Company reserved 6,189,332 shares of common stock for future issuance under the 2021 Plan. In addition, any awards subject to the 2014 Plan which are forfeited or repurchased by the Company after the effective date of the 2021 Plan are added to the 2021 Plan reserve. The number of shares of common stock reserved for issuance under the 2021 Plan automatically

increase on the first day of January, commencing on January 1, 2022 and through 2031, in an amount equal to 5% of the total number of shares of the Company's capital stock outstanding on the last day of the preceding year, or a lesser number of shares determined by the Company's board of directors. On January 1, 2022, the common stock available for issuance under the 2021 Plan automatically increased by 1,911,215 shares. As of December 31, 2022, there were 4,415,628 shares available for issuance under the 2021 Plan.

Awards granted under the 2021 Plan expire no later than ten years from the date of grant. For the Incentive Stock Options, or ISOs, and Nonqualified Stock Options, or NSOs, the option price shall not be less than 100% of the estimated fair value on the date of grant. Options granted typically vest over a four-year period but may be granted with different vesting terms.

Stock option activity under the 2021 Plan was as follows:

	Number of stock options	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (thousands)
Outstanding as of December 31, 2021	1,473,812	$ 17.57		
Granted	2,466,116	19.09		
Exercised	(84,241)	17.35		
Cancelled/Forfeited	(194,990)	18.15		
Outstanding as of December 31, 2022	3,660,697	18.57	9.10	46,325
Exercisable as of December 31, 2022	893,310	18.19	8.91	11,619

The intrinsic value of options exercised, calculated as the difference between the fair value of the Company's common stock at the time of exercise and the exercise price of the stock option, was approximately $1.5 million for the year ended December 31, 2022. There were no stock option exercises during the year ended December 31, 2021.

The weighted-average grant date fair value of options granted to employees during the years ended December 31, 2022 and 2021 was $12.53 and $11.01, respectively. The total fair value of stock options that vested during the years ended December 31, 2022 and 2021 was $8.2 million and $3.1 million, respectively.

The estimated grant-date fair value of the Company's stock options was calculated using the Black-Scholes option pricing model, based on the following assumptions:

	Year Ended December 31,	
	2022	2021
Expected term (in years)	5.5 - 6.1	5.0 - 6.7
Expected volatility	72% - 76%	72% - 73%
Risk-free interest rate	1.52% - 4.30%	0.79% - 1.34%
Dividend yield	—	—

2021 Employee Stock Purchase Plan

In September 2021, the Company's board of directors and stockholders adopted and approved the Employee Stock Purchase Plan ("ESPP"), which became effective in connection with the IPO. The Company reserved 375,000 shares of common stock for future issuance under the ESPP. The number of shares of common stock reserved for issuance under the ESPP automatically increase on the first day of January, commencing on January 1, 2022 and through 2031, in an amount equal to 1% of the total number of shares of the Company's capital stock outstanding on the last day of the preceding year, or a lesser number of shares determined by the Company's board of directors. On January 1, 2022, the common stock available for issuance under the ESPP automatically increased by 382,243 shares. Under the ESPP, employees, subject to certain restrictions, may purchase shares of common stock at 85% of the fair market value at either the beginning of the offering period or the date of purchase, whichever is less. Purchases are limited to the lesser of 15% of each employee's eligible annual compensation or $25,000. As of December 31, 2022 the Company has issued no shares under the ESPP as the first offering period has not begun. As of December 31, 2022, there were 757,243 shares available for issuance under the ESPP.

Stock-Based Compensation Expense

The Company recognized stock-based compensation as follows (in thousands):

	Year Ended December 31,	
	2022	2021
Research and development	$ 6,484	$ 2,625
General and administrative	6,341	2,956
Total stock-based compensation expense	$ 12,825	$ 5,581

As of December 31, 2022, there was a total of $30.8 million and $3.6 million of unrecognized compensation costs related to stock options and restricted stock awards, respectively, that is expected to be recognized over a weighted-average period of approximately 2.9 and 2.1 years, respectively. The Company did not recognize incremental stock-based compensation expense related to the conversion of the profit interest units to unvested common stock in accordance with the Conversion, as such exchange was at fair value.

13. Employee Benefit Plan

The Company has a qualified contributory savings plan under Section 401(k) of the Internal Revenue Code (the "Code") covering substantially all U.S. employees of DICE Therapeutics, Inc. The 401(k) plan is designed to provide tax-deferred retirement benefits in accordance with the provisions of Section 401(k) of the Code. Eligible employees may defer up to 100% of their eligible compensation up to the annual maximum as determined by the Internal Revenue Service. The Company's contributions to the plan are discretionary. For the years ended December 31, 2022 and 2021, the Company did not make any contributions to the plan.

14. Income Taxes

The company has not recognized any current or deferred tax expense for the years ended December 31, 2022 and 2021. The Company has incurred net operating losses in the United States only for all periods presented. The Company has not reflected any benefit of such net operating loss carryforwards in the accompanying financial statements. The Company has established a full valuation allowance against its deferred tax assets due to the uncertainty surrounding the realization of such assets.

The following table presents a reconciliation of the statutory federal rate and the Company's effective tax rate:

	Year Ended December 31,	
	2022	2021
Statutory rate	21.0%	21.0%
State tax	0.6	(3.9)
Tax credits	1.4	1.2
Change in valuation allowance	(20.9)	(17.0)
Other	—	(0.4)
Stock compensation	(2.1)	(0.9)
Effective income tax rate	—%	—%

The following table presents the significant components of the Company's deferred tax assets and liabilities (in thousands):

	December 31,	
	2022	2021
Deferred tax assets:		
Net operating loss carryforwards	$ 17,340	$ 13,482
R&D Capitalization	16,642	5,711
Tax credit carryforwards	3,940	2,276
Lease liabilities	2,789	—
Stock compensation	1,215	505
Accrual and other	1,134	455
Total deferred tax assets	43,060	22,429
Deferred tax liabilities:		
Property and equipment	(294)	(90)
Right of use assets	(2,753)	—
Total deferred tax liabilities	(3,047)	(90)
Valuation allowance	(40,013)	(22,339)
Net deferred taxes	$ —	$ —

The tax benefits of net operating losses, temporary differences and credit carryforwards are recorded as an asset to the extent that management assesses that realization is "more likely than not." Realization of the future tax benefits is dependent on the Company's ability to generate sufficient taxable income within the carryforward period. Because of the Company's history of operating losses, management believes that recognition of the deferred tax assets arising from the above-mentioned future tax benefits is currently not likely to be realized and, accordingly, has provided a valuation allowance. The valuation allowance increased by $17.7 million and $8.0 million during the years ended December 31, 2022 and 2021, respectively.

The Company had pre-tax net operating losses and tax credit carryforwards as of December 31, 2022 as follows (in thousands):

	Amount	Expiration Years
Net operating losses, federal	$ 77,353	Do not expire
Net operating losses, state	15,699	2038-2042
Tax credits, federal	3,491	2038-2042
Tax credits, state	2,230	N/A

The ability of the Company to utilize net operating losses and credit carryforwards to reduce future domestic taxable income and domestic income tax is subject to various limitations under the Internal Revenue Code ("Code"). Internal Revenue Code Section 382 places a limitation (Section 382 Limitation) on the amount of taxable income that can be offset by NOL carryforwards after a change in control (generally greater than 50% change in ownership within a three-year period) of a loss corporation. California has similar rules. Generally, after a change in control, a loss corporation cannot deduct NOL carryforwards in excess of the Section 382 Limitation. Due to these "change in ownership" provisions, utilization of the NOL and tax credit carryforwards may be subject to an annual limitation regarding their utilization against taxable income in future periods.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in thousands):

	December 31,	
	2022	2021
Balance, beginning of year	$ 832	$ 515
Additions based on tax positions related to current year	598	317
Balance, end of year	$ 1,430	$ 832

The entire amount of the unrecognized tax benefits would not impact the Company's effective tax rate if recognized and there would be no cash tax impact. The Company has elected to include interest and penalties as a component of tax expense. During the year ended December 31, 2022, the Company did not recognize accrued

interest and penalties related to unrecognized tax benefits. The Company does not anticipate that the amount of existing unrecognized tax benefits will significantly increase or decrease during the next 12 months. The Company files income tax returns in the U.S. federal and California tax jurisdictions. The federal and state income tax returns from inception to December 31, 2021 remain subject to inspection.

15. Net Loss Per Share

The following outstanding potentially dilutive shares have been excluded from the computation of diluted net loss per share for the periods presented because their effect would have been anti-dilutive:

	Year Ended December 31,	
	2022	2021
Restricted stock subject to future vesting	565,220	1,028,389
Options to purchase common stock	3,660,697	1,473,812
Warrants to purchase common stock	42,349	—
Total	4,268,266	2,502,201

16. Subsequent Events

On March 10, 2023, SVB was closed by the California Department of Financial Protection and Innovation, which also appointed the FDIC as receiver. At the time of the closure of SVB, the Company had approximately 1% of total current cash, cash equivalents and marketable securities in deposit accounts with SVB. On March 12, 2023, the FDIC announced that all depositors of the bank would have access to all funds starting on March 13, 2023. The remainder of the Company's cash, cash equivalents and marketable securities resides in a custodial account held in the Company's name at U.S. Bank for which SVB Asset Management is the advisor, and management does not believe the investments in this account are directly exposed to risk of loss as a result of the insolvency of SVB.

As disclosed in Note 9, the Company has a credit facility with SVB under which it has the option to borrow up to $30.0 million of term loan advances. There is no outstanding balance on this credit facility. There can be no assurance that this credit facility will be available to the Company for borrowing.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation and supervision of our Chief Executive Officer and our Chief Financial Officer, have evaluated our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act) as of the end of the period covered by this Annual Report on Form 10-K. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2022, our disclosure controls and procedures are effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) during the quarter ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) or 15d-15(f) under the Exchange Act. Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on criteria established in "Internal Control-Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on the results of our assessment, our management concluded that our internal control over financial reporting was effective as of December 31, 2022.

Attestation Report of Registered Public Accounting Firm

This Annual Report on Form 10-K does not include an attestation report of our registered public accounting firm regarding internal control over financial reporting due to an exemption established by the JOBS Act for "emerging growth companies."

Item 9B. Other Information.

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspection.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this item is incorporated by reference from our definitive Proxy Statement to be filed with the SEC in connection with our 2023 Annual Meeting of Stockholders within 120 days after the end of the fiscal year ended December 31, 2022 (the "Proxy Statement").

Item 11. Executive Compensation.

The information required by this item will be included in the Proxy Statement and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this item will be included in the Proxy Statement and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this item will be included in the Proxy Statement and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services.

The information required by this item will be included in the Proxy Statement and is incorporated herein by reference.

PART IV

Item 15. Exhibit and Financial Statement Schedules.

(a) The following documents are filed as part of this report:

(1) Financial Statements

Information in response to this Item is included in Part II, Item 8 of this Annual Report on Form 10-K.

(2) Financial Statement Schedules

All schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

(3) Exhibits

EXHIBIT INDEX

Exhibit No.	Description	Incorporated by Reference				Filed herewith
		Form	File No.	Exhibit	Filing Date	
3.1	Restated Certificate of Incorporation.	10-Q	001-40794	3.1	11/12/2021	
3.2	Restated Bylaws.	8-K	001-40794	3.1	11/17/2022	
4.1	Form of Registrant's common stock certificate.	S-1	333-259061	4.1	08/25/2021	
4.2	Amended and Restated Investors' Rights Agreement, dated August 20, 2021, by and among the Registrant and certain of its stockholders.	S-1/A	333-259061	4.2	08/27/2021	
4.3	Description of Securities Registered Under Section 12 of the Exchange Act.	10-K	001-40794	4.3	03/28/2021	
4.4	Warrant to Purchase Stock, by and between the Registrant and Silicon Valley Bank, dated as of June 27, 2022.	10-Q	001-40794	4.1	08/11/2022	
10.1	Form of Indemnity Agreement.	S-1	333-259061	10.1	08/25/2021	
10.2*	2014 Equity Incentive Plan and forms of award agreements.	S-1	333-259061	10.2	08/25/2021	
10.3*	2021 Equity Incentive Plan and forms of award agreements thereunder.	S-1/A	333-259061	10.3	09/09/2021	
10.4*	2021 Employee Stock Purchase Plan and forms of award agreements thereunder.	S-1/A	333-259061	10.4	09/09/2021	
10.5	Lease Agreement, dated June 25, 2021, by and between ARE-EAST JAMIE COURT, LLC and the Registrant.	S-1	333-259061	10.8	08/25/2021	
10.6	Loan and Security Agreement, by and between the Registrant and Silicon Valley Bank, dated as of April 13, 2021.	S-1	333-259061	10.10	08/25/2021	
10.7**	Joinder and First Amendment to Loan and Security Agreement, by and between the Registrant and Silicon Valley Bank, dated as of June 27, 2022	10-Q	001-40794	10.1	08/11/2022	
10.8*	Offer Letter, dated September 7, 2021, by and between the Registrant and J. Kevin Judice, Ph.D.	S-1/A	333-259061	10.11	09/09/2021	

Exhibit No.	Description	Incorporated by Reference				Filed herewith
		Form	File No.	Exhibit	Filing Date	
10.9*	Offer Letter, dated September 7, 2021, by and between the Registrant and Timothy Lu, M.D., Ph.D.					X
10.10*	Offer Letter, dated September 7, 2021, by and between the Registrant and Scott Robertson.	S-1/A	333-259061	10.13	09/09/2021	
10.11*	Form of Change in Control and Severance Agreement.	S-1/A	333-259061	10.14	09/09/2021	
21.1	Subsidiaries of the Registrant.					X
23.1	Consent of Independent Registered Public Accounting Firm.					X
24.1	Power of Attorney (reference is made to the signature page hereto).					X
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1‡	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2‡	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document.					X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.					X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.					X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.					X

Exhibit No.	Description	Incorporated by Reference				Filed herewith
		Form	File No.	Exhibit	Filing Date	
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).					X

** Indicates a management or compensatory plan or arrangement in which directors or executive officers are eligible to participate.*

*** Schedules omitted pursuant to Item 601 of Regulation S-K. The Registrant agrees to furnish supplementally a copy of any omitted schedule to the SEC upon request.*

‡ The certifications furnished in Exhibits 32.1 and 32.2 hereto are deemed to accompany this Annual Report on Form 10-K and are not deemed "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, nor shall they be deemed incorporated by reference into any filing under the Securities Act of the Exchange Act

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

DICE Therapeutics, Inc.

Date: March 15, 2023

By: /s/ J. Kevin Judice, Ph.D.
J. Kevin Judice, Ph.D.
Chief Executive Officer
(Principal Executive Officer)

Date: March 15, 2023

By: /s/ Scott Robertson
Scott Robertson
Chief Business and Financial Officer
(Principal Accounting and Financial Officer)

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints J. Kevin Judice, Ph.D. and Scott Robertson, and each of them, as his or her true and lawful attorneys-in-fact, proxies and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K and to file the same, with any exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto such attorneys-in-fact, proxies and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, proxies and agents, or their or his or her substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Report has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Name	Title	Date
/s/ J. Kevin Judice, Ph.D. J. Kevin Judice, Ph.D.	Chief Executive Officer and Director *(Principal Executive Officer)*	March 15, 2023
/s/ Scott Robertson Scott Robertson	Chief Business and Financial Officer *(Principal Financial and Accounting Officer)*	March 15, 2023
/s/ Richard Scheller, Ph.D. Richard Scheller, Ph.D.	Chairman of the Board and Director	March 15, 2023
/s/ Lisa Bowers Lisa Bowers	Director	March 15, 2023
/s/ Mittie Doyle, M.D. Mittie Doyle, M.D.	Director	March 15, 2023
/s/ Jim Scopa Jim Scopa	Director	March 15, 2023
/s/ Jake Simson, Ph.D. Jake Simson, Ph.D.	Director	March 15, 2023
/s/ Sharon Tetlow Sharon Tetlow	Director	March 15, 2023