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

FORM 10-Q

(Mark One)
x **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the quarterly period ended September 30, 2021

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: 001-40323

Recursion Pharmaceuticals, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**46-4099738**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

41 S Rio Grande Street
Salt Lake City, UT 84101
(Address of principal executive offices) (Zip code)
(385) 269 - 0203
(Registrant's telephone number, including area code)

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

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Class A Common Stock, par value $0.00001	RXRX	Nasdaq Global Select Market

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 x 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 x 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	☐	Non-accelerated filer ☒
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 is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No x

As of October 31, 2021, there were 159,525,190 and 9,467,883 of the registrant's Class A and B common stock, par value $0.00001 per share, outstanding, respectively.

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RISK FACTOR SUMMARY

Below is a summary of the principal factors that make an investment in the common stock of Recursion Pharmaceuticals, Inc. (Recursion, the Company, we, us, or our) risky or speculative. This summary does not address all of the risks we face. Additional discussion of the risks summarized below, and other risks that we face, can be found in the section titled “Item 1A. Risk Factors” in this Quarterly Report on Form 10-Q.

- We are a clinical-stage biotechnology company with a limited operating history. We have no products approved for commercial sale and have not generated any revenue from product sales.
- Our drug candidates are in preclinical or clinical development, which are lengthy and expensive processes with uncertain outcomes and the potential for substantial delays.
- We have incurred significant operating losses since our inception, we expect to incur substantial and increasing operating losses for the foreseeable future, and we may not be able to achieve or maintain profitability.
- Our mission is broad and expensive to achieve and we will need to raise substantial additional funding, which may not be available on commercially reasonable terms or at all.
- We expect to finance our cash needs for the foreseeable future potentially through a combination of private and public equity offerings and debt financings, as well as strategic collaborations. If we are unable to raise capital when needed, we would be forced to delay, reduce, or eliminate at least some of our product development programs and other activities, and to possibly cease operations.
- Raising additional capital entails risks, including that it may adversely affect the rights, or dilute the holdings, of our existing stockholders; increase our fixed payment obligations; require us to relinquish rights to our technologies or drug candidates; and/or divert management’s attention from our core business.
- If we are unable to establish additional strategic collaborations on commercially reasonable terms or at all, or if current or future collaborations are not successful, we may have to alter our drug development plans.
- We or our current and future collaborators may never successfully develop and commercialize drug candidates, or the market for approved drug candidates may be less than anticipated, which in either case would materially and adversely affect our financial results and our ability to continue our business operations.
- Our approach to drug discovery is unique and may not lead to successful drug products for various reasons, including potential challenges identifying mechanisms of action for our candidates.
- Although we intend to explore other therapeutic opportunities in addition to the drug candidates we are currently developing, we may fail to identify viable new candidates or we may need to prioritize candidates and, as a result, we may fail to capitalize on profitable market opportunities.
- We may experience delays in initiating and completing clinical trials, including due to difficulties in enrolling patients or maintaining compliance with trial protocols, or our trials may produce inconclusive or negative results.
- If we are unable to obtain or there are delays in obtaining regulatory approvals for our drug candidates in the U.S. or other jurisdictions, or if approval is subject to limitations, we will be unable to commercialize, or delayed or limited in commercializing, the products in that jurisdiction and our ability to generate revenue may be materially impaired.
- Our quarterly and annual operating results may fluctuate significantly due to a variety of factors, a number of which are outside our control or may be difficult to predict, which could cause our stock price to fluctuate or decline.

- If we are not able to develop new solutions and enhancements to our drug discovery platform that keep pace with technological developments, or if we experience breaches or malfunctions affecting our platform, our ability to identify and validate viable drug candidates would be adversely impacted.
- Third parties that provide supplies or equipment, or that manufacture our drug products or drug substances, may not provide sufficient quantities at an acceptable cost or may otherwise fail to perform.
- We or third parties on which we depend may experience system failures, cyber-attacks, and other disruptions to information technology or cloud-based infrastructure, which could harm our business and subject us to liability for disclosure of confidential information.
- Force majeure events, such as the continuing COVID-19 pandemic or a natural disaster, could materially disrupt our business and the development of our drug candidates.
- If we are unable to adequately protect and enforce our intellectual property rights, including obtaining and maintaining patent protection for our key technology and products that is sufficiently broad, our competitors could develop and commercialize technology and products similar or identical to ours and our ability to successfully commercialize our technology and products may be impaired.
- If we are unable to protect the confidentiality of our trade secrets and know-how, our business and competitive position may be harmed.
- If we fail to comply with our obligations in the agreements under which we collaborate with and/or license intellectual property rights from third parties, or otherwise experience disruptions to our business relationships with our partners, we could lose rights that are important to our business.
- We face substantial competition, which may result in others discovering, developing, or commercializing competing products before we do.
- If we are unable to attract and retain key executives, experienced scientists, and other qualified personnel, our ability to discover and develop drug candidates and pursue our growth strategy could be impaired.
- We are subject to comprehensive and ongoing statutory and regulatory requirements, noncompliance with which may delay or prevent our ability to market our products or result in fines or other liabilities.

Cautionary Note Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains “forward-looking statements” about us and our industry within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements other than statements of historical facts are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “would,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential,” or “continue” or the negative of these terms or other similar expressions. Forward-looking statements contained in this report may include without limitation those regarding:

- our research and development programs
- the initiation, timing, progress, results, and cost of our current and future preclinical and clinical studies, including statements regarding the design of, and the timing of initiation and completion of, studies and related preparatory work, as well as the period during which the results of the studies will become available;
- the ability of our clinical trials to demonstrate the safety and efficacy of our drug candidates, and other positive results;

- the ability and willingness of our collaborators to continue research and development activities relating to our development candidates and investigational medicines;
- future agreements with third parties in connection with the commercialization of our investigational medicines and any other approved product;
- the timing, scope, and likelihood of regulatory filings and approvals, including the timing of Investigational New Drug applications and final approval by the U.S. Food and Drug Administration, or FDA, of our current drug candidates and any other future drug candidates, as well as our ability to maintain any such approvals;
- the timing, scope, or likelihood of foreign regulatory filings and approvals, including our ability to maintain any such approvals;
- the size of the potential market opportunity for our drug candidates, including our estimates of the number of patients who suffer from the diseases we are targeting;
- our ability to identify viable new drug candidates for clinical development and the rate at which we expect to identify such candidates, whether through an inferential approach or otherwise;
- our expectation that the assets that will drive the most value for us are those that we will identify in the future using our datasets and tools;
- our ability to develop and advance our current drug candidates and programs into, and successfully complete, clinical studies;
- our ability to reduce the time or cost or increase the likelihood of success of our research and development relative to the traditional drug discovery paradigm;
- our ability to improve, and the rate of improvement in, our infrastructure, datasets, biology, technology tools, and drug discovery platform, and our ability to realize benefits from such improvements;
- our expectations related to the performance and benefits of our BioHive-1 supercomputer;
- our ability to realize a return on our investment of resources and cash in our drug discovery collaborations;
- our ability to scale like a technology company and to add more programs to our pipeline each year than in the prior;
- our ability to successfully compete in a highly competitive market;
- our manufacturing, commercialization, and marketing capabilities and strategies;
- our plans relating to commercializing our drug candidates, if approved, including the geographic areas of focus and sales strategy;
- our expectations regarding the approval and use of our drug candidates in combination with other drugs;
- the rate and degree of market acceptance and clinical utility of our current drug candidates, if approved, and other drug candidates we may develop;
- our competitive position and the success of competing approaches that are or may become available;
- our estimates of the number of patients that we will enroll in our clinical trials and the timing of their enrollment;
- the beneficial characteristics, safety, efficacy, and therapeutic effects of our drug candidates;
- our plans for further development of our drug candidates, including additional indications we may pursue;
- our ability to adequately protect and enforce our intellectual property and proprietary technology, including the scope of protection we are able to establish and maintain for intellectual property rights

covering our current drug candidates and other drug candidates we may develop, receipt of patent protection, the extensions of existing patent terms where available, the validity of intellectual property rights held by third parties, the protection of our trade secrets, and our ability not to infringe, misappropriate or otherwise violate any third-party intellectual property rights;

- the impact of any intellectual property disputes and our ability to defend against claims of infringement, misappropriation, or other violations of intellectual property rights;
- our ability to keep pace with new technological developments;
- our ability to utilize third-party open source software and cloud-based infrastructure, on which we are dependent;
- the adequacy of our insurance policies and the scope of their coverage;
- the potential impact of a pandemic, epidemic, or outbreak of an infectious disease, such as COVID-19, or natural disaster, and the effect of such outbreak or natural disaster on our business and financial results;
- our ability to maintain our technical operations infrastructure to avoid errors, delays, or cybersecurity breaches;
- our continued reliance on third parties to conduct additional clinical trials of our drug candidates, and for the manufacture of our drug candidates for preclinical studies and clinical trials;
- our ability to obtain, and negotiate favorable terms of, any collaboration, licensing or other arrangements that may be necessary or desirable to research, develop, manufacture, or commercialize our platform and drug candidates;
- the pricing and reimbursement of our current drug candidates and other drug candidates we may develop, if approved;
- our estimates regarding expenses, future revenue, capital requirements, and need for additional financing;
- our financial performance;
- the period over which we estimate our existing cash and cash equivalents will be sufficient to fund our future operating expenses and capital expenditure requirements;
- our ability to raise substantial additional funding;
- the impact of current and future laws and regulations, and our ability to comply with all regulations that we are, or may become, subject to;
- the need to hire additional personnel and our ability to attract and retain such personnel;
- the impact of any current or future litigation, which may arise during the ordinary course of business and be costly to defend;
- our expectations regarding the period during which we will qualify as an emerging growth company under the JOBS Act;
- our anticipated use of our existing resources and the net proceeds from our Initial Public Offering in April 2021; and
- other risks and uncertainties, including those listed in the section titled “Risk Factors.”

We have based these forward-looking statements largely on our current expectations and projections about our business, the industry in which we operate, and financial trends that we believe may affect our business, financial condition, results of operations, and prospects. These forward-looking statements are not guarantees of future performance or development. These statements speak only as of the date of this report and are subject to a number of risks, uncertainties and assumptions described in the section titled

“Risk Factors” and elsewhere in this report. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, we undertake no obligation to update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, or otherwise.

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

PART I - FINANCIAL INFORMATION

Item 1. Financial Statements.

Recursion Pharmaceuticals, Inc.
Condensed Consolidated Balance Sheets (unaudited)
(in thousands, except share and per share amounts)

	September 30, 2021	December 31, 2020
Assets		
Current assets		
Cash and cash equivalents	$ 394,721	$ 262,126
Restricted cash	10,233	5,041
Accounts receivable	34	156
Other receivables	2,248	—
Investments	184,189	—
Other current assets	9,445	2,155
Total current assets	600,870	269,478
Property and equipment, net	55,439	25,967
Intangible assets, net	2,262	2,490
Other non-current assets	35	650
Total assets	$ 658,606	$ 298,585
Liabilities, convertible preferred stock and stockholders' equity (deficit)		
Current liabilities		
Accounts payable	$ 6,326	$ 1,074
Accrued expenses and other liabilities	25,113	10,485
Current portion of unearned revenue	10,000	10,000
Current portion of notes payable	88	1,073
Current portion of lease incentive obligation	1,416	467
Total current liabilities	42,943	23,099
Deferred rent	3,348	2,674
Unearned revenue, net of current portion	9,167	16,667
Notes payable, net of current portion	656	11,414
Lease incentive obligation, net of current portion	3,460	2,708
Total liabilities	59,574	56,562
Commitments and contingencies (Note 8)		
Convertible preferred stock (series A, A-1, B, C and D), $0.00001 par value; 200,000,000 and 121,434,713 shares authorized as of September 30, 2021 and December 31, 2020, respectively; 0 and 112,088,065 shares issued and outstanding as of September 30, 2021 and December 31, 2020, respectively; liquidation preference of $0 and $450,850 as of September 30, 2021 and December 31, 2020, respectively	—	448,312
Stockholders' equity (deficit)		
Common stock (Class A and B), $0.00001 par value; 2,000,000,000 (Class A 1,989,032,117, Class B 10,967,883) and 188,400,000 shares authorized as of September 30, 2021 and December 31, 2020, respectively; 168,634,959 (Class A 159,167,076, Class B 9,467,883) and 22,314,685 shares issued and outstanding as of September 30, 2021 and December 31, 2020, respectively	2	—
Additional paid-in capital	934,175	7,312
Accumulated deficit	(335,147)	(213,601)
Accumulated other comprehensive income	2	—
Total stockholders' equity (deficit)	599,032	(206,289)
Total liabilities, convertible preferred stock and stockholders' equity (deficit)	$ 658,606	$ 298,585

See the accompanying notes to these condensed consolidated financial statements.

Recursion Pharmaceuticals, Inc.
Condensed Consolidated Statements of Operations (unaudited)
(in thousands, except share and per share amounts)

	Three months ended September 30,		Nine months ended September 30,	
	2021	**2020**	**2021**	**2020**
Revenue				
Grant revenue	$ 34	$ 163	$ 145	$ 409
Operating revenue	2,500	862	7,500	862
Total revenue	2,534	1,025	7,645	1,271
Operating expenses				
Research and development	33,246	16,535	86,979	42,621
General and administrative	15,690	6,964	38,481	17,684
Total operating expenses	48,936	23,499	125,460	60,305
Loss from operations	(46,402)	(22,474)	(117,815)	(59,034)
Other loss, net	(1,026)	(1,399)	(3,731)	(2,206)
Net loss	$ (47,428)	$ (23,873)	$ (121,546)	$ (61,240)
Per share data				
Net loss per share of Class A and B common stock, basic and diluted	$ (0.28)	$ (1.09)	$ (1.10)	$ (2.82)
Weighted-average shares (Class A and B) outstanding, basic and diluted	168,533,550	21,817,900	110,513,231	21,704,008

See the accompanying notes to these condensed consolidated financial statements.

Recursion Pharmaceuticals, Inc.
Condensed Consolidated Statements of Comprehensive Loss (unaudited)
(in thousands)

	Three months ended September 30,		Nine months ended September 30,	
	2021	**2020**	**2021**	**2020**
Net loss	$ (47,428)	$ (23,873)	$ (121,546)	$ (61,240)
Unrealized gains on investments	2	—	2	—
Net realized losses (gains) on investments reclassified into net loss	—	—	—	—
Other comprehensive income	2	—	2	—
Comprehensive loss	$ (47,426)	$ (23,873)	$ (121,544)	$ (61,240)

See the accompanying notes to these condensed consolidated financial statements.

Recursion Pharmaceuticals, Inc.
Condensed Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit) (unaudited) ***(in thousands, except share amounts)***

	Convertible Preferred Stock		Common Stock (Class A and B)		Additional Paid-in-Capital	Accumulated Deficit	Accumulated other comprehensive income	Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance as of June 30, 2021	—	—	168,425,907	$ 2	$ 930,431	$ (287,719)	$ —	$ 642,714
Net loss	—	—	—	—	—	(47,428)	—	(47,428)
Other comprehensive income	—	—	—	—	—	—	2	2
Stock option exercises and other	—	—	209,052	—	382	—	—	382
Stock-based compensation	—	—	—	—	3,362	—	—	3,362
Balance as of September 30, 2021	—	—	168,634,959	$ 2	$ 934,175	$ (335,147)	$ 2	$ 599,032

	Convertible Preferred Stock		Common Stock (Class A and B)		Additional Paid-in-Capital	Accumulated Deficit	Accumulated other comprehensive income	Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount				
Balance as of December 31, 2020	112,088,065	$ 448,312	22,314,685	$ —	$ 7,312	$ (213,601)	$ —	$ (206,289)
Net loss	—	—	—	—	—	(121,546)	—	(121,546)
Other comprehensive income	—	—	—	—	—	—	2	2
Common stock issuance for initial public offering, net of issuance costs	—	—	27,878,787	1	462,353	—	—	462,354
Conversion of preferred stock to common stock	(112,088,065)	(448,312)	115,598,018	1	448,311	—	—	448,312
Stock warrant exercises	—	—	129,963	—	2,340	—	—	2,340
Stock option exercises and other	—	—	2,713,506	—	3,359	—	—	3,359
Stock-based compensation	—	—	—	—	10,500	—	—	10,500
Balance as of September 30, 2021	—	$ —	168,634,959	$ 2	$ 934,175	$ (335,147)	$ 2	$ 599,032

See the accompanying notes to these condensed consolidated financial statements.

Recursion Pharmaceuticals, Inc.
Condensed Consolidated Statements of Convertible Preferred Stock and Stockholders' Deficit (unaudited)
(in thousands, except share amounts)

	Convertible Preferred Stock		Common Stock		Additional Paid-in-Capital	Accumulated Deficit	Stockholders' Deficit
	Shares	Amount	Shares	Amount			
Balance as of June 30, 2020	75,189,517	$ 201,109	21,652,277	$ —	$ 4,524	$ (163,962)	$ (159,438)
Net loss	—	—	—	—	—	(23,873)	(23,873)
Stock option exercises	—	—	282,215	—	211	—	211
Issuance of Series D convertible preferred stock inclusive of the convertible notes, net of issuance costs of $228	35,349,630	236,813	—	—	—	—	—
Stock-based compensation	—	—	—	—	1,025	—	1,025
Balance as of September 30, 2020	110,539,147	$ 437,922	21,934,492	$ —	$ 5,760	$ (187,835)	$ (182,075)

	Convertible Preferred Stock		Common Stock		Additional Paid-in-Capital	Accumulated Deficit	Stockholders' Deficit
	Shares	Amount	Shares	Amount			
Balance as of December 31, 2019	75,189,517	$ 201,109	21,637,609	$ —	$ 2,330	$ (126,595)	$ (124,265)
Net loss	—	—	—	—	—	(61,240)	(61,240)
Stock option exercises	—	—	296,883	—	227	—	227
Issuance of Series D convertible preferred stock inclusive of the convertible notes, net of issuance costs of $228	35,349,630	236,813	—	—	—	—	—
Stock-based compensation	—	—	—	—	3,203	—	3,203
Balance as of September 30, 2020	110,539,147	$ 437,922	21,934,492	$ —	$ 5,760	$ (187,835)	$ (182,075)

See the accompanying notes to these condensed consolidated financial statements.

Recursion Pharmaceuticals, Inc.
Condensed Consolidated Statements of Cash Flows (unaudited) *(in thousands)*

	Nine months ended September 30,	
	2021	**2020**
Cash flows from operating activities		
Net loss	$ (121,546)	$ (61,240)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	6,169	2,818
Stock-based compensation	10,501	3,104
Asset impairment	—	874
Loss on debt extinguishment	827	883
Other, net	2,940	309
Changes in operating assets and liabilities:		
Accounts receivable	114	(30,048)
Other receivables and assets	(6,860)	(677)
Unearned revenue	(7,500)	29,167
Accounts payable	5,252	37
Accrued development expense	1,524	(195)
Accrued expenses, deferred rent and other current liabilities	11,123	996
Net cash used in operating activities	(97,456)	(53,972)
Cash flows from investing activities		
Purchases of property and equipment	(35,334)	(2,144)
Acquisition of a business	—	(2,600)
Purchases of investments	(184,167)	—
Proceeds from note receivable	—	595
Net cash used in investing activities	(219,501)	(4,149)
Cash flows from financing activities		
Proceeds from initial public offering of common stock, net of issuance costs	462,901	—
Proceeds from sale of preferred stock, net of issuance costs	—	229,530
Proceeds from equity incentive plans	4,620	227
Repayment of long-term debt	(12,777)	(57)
Proceeds from convertible notes	—	6,400
Net cash provided by financing activities	454,744	236,100
Net change in cash, cash equivalents and restricted cash	137,787	177,979
Cash, cash equivalents and restricted cash, beginning of period	267,167	75,171
Cash, cash equivalents and restricted cash, end of period	$ 404,954	$ 253,150
Supplemental disclosure of non—cash investing and financing information		
Conversion of preferred stock to common stock	$ 448,312	$ —
Conversion of convertible notes to equity	—	8,071
Deferred issuance costs recorded in equity	547	—
Accrued property and equipment	413	42
Supplemental disclosure of cash flow information		
Cash paid for interest	$ 665	$ 823

See the accompanying notes to these condensed consolidated financial statements.

Note 1. Description of the Business

Recursion Pharmaceuticals, Inc. (Recursion, the Company, we, us or our) was originally formed as a limited liability company on November 4, 2013 under the name Recursion Pharmaceuticals, LLC. In September 2016, we converted to a Delaware corporation and changed our name to Recursion Pharmaceuticals, Inc.

Recursion is a biotechnology company that combines automation, artificial intelligence, machine learning, in vivo validation capabilities and a highly cross-functional team to discover novel medicines that expand our collective understanding of biology. Recursion's rich, relatable database of biological images generated in-house on the Company's robotics platform enables advanced machine learning approaches to reveal drug candidates, mechanisms of action, novel chemistry and potential toxicity, with the eventual goal of decoding biology and advancing new therapeutics that radically improve people's lives.

As of September 30, 2021, the Company had an accumulated deficit of $335.1 million. The Company expects to incur substantial operating losses in future periods and will require additional capital to advance its drug candidates. The Company does not expect to generate significant revenue until the Company successfully completes significant drug development milestones with its subsidiaries or in collaboration with third parties, which the Company expects will take a number of years. In order to commercialize its drug candidates, the Company or its partners need to complete clinical development and comply with comprehensive regulatory requirements. The Company is subject to a number of risks and uncertainties similar to those of other companies of the same size within the biotechnology industry, such as the uncertainty of clinical trial outcomes, uncertainty of additional funding and a history of operating losses.

The Company has funded its operations to date through the issuance of convertible preferred stock (see Note 9, "Convertible Preferred Stock" for additional details) and the issuance of Class A common stock in an Initial Public Offering (IPO), which was completed in April 2021 (see Note 10, "Common Stock" for additional details). Recursion will likely be required to raise additional capital. As of September 30, 2021, the Company did not have any unconditional outstanding commitments for additional funding. If the Company is unable to access additional funds when needed, it may not be able to continue the development of its products or the Company could be required to delay, scale back or abandon some or all of its development programs and other operations. The Company's ability to access capital when needed is not assured and, if not achieved on a timely basis, could materially harm its business, financial condition and results of operations.

The Company believes that the net proceeds from the IPO, together with the Company's existing cash and cash equivalents and borrowings available to it, will be sufficient to fund the Company's operating expenses and capital expenditures for at least the next 12 months.

Note 2. Basis of Presentation

Basis of Presentation

The unaudited interim condensed consolidated financial statements of Recursion have been prepared pursuant to the rules and regulations of the U.S. Securities and Exchange Commission (SEC). Accordingly, certain information and footnote disclosures normally included in annual financial statements prepared in accordance with generally accepted accounting principles in the United States (U.S. GAAP) have been condensed or omitted. These unaudited interim condensed consolidated financial statements should be read in conjunction with the Company's audited consolidated financial statements and notes for the year ended December 31, 2020 included in the Company's final prospectus dated as of April 15, 2021 and filed with the SEC pursuant to Rule 424(b)(4) on April 16, 2021.

In April 2021, the Company completed a 1.5-for-1 forward stock split of common and convertible preferred stock. All shares presented within these condensed consolidated financial statements were adjusted to reflect the forward stock split for all periods presented. See Note 10, "Common Stock" for additional details.

In April 2021, the Company's Board of Directors authorized two classes of common stock, Class A and Class B. Certain shares of Class A were exchanged for Class B on a one-for-one basis. The creation and issuance of the

Class B common stock did not affect the loss per share for the Class A or Class B shares for any period. The Company presented the 2021 net loss per share amounts as if the authorization and exchange occurred as of the start of the 2021 reporting period. See Note 10, “Common Stock” for additional details.

It is management’s opinion that these condensed consolidated financial statements include all normal and recurring adjustments necessary for a fair presentation of the Company’s financial statements. Revenues and net loss for any interim period are not necessarily indicative of future or annual results.

Emerging Growth Company

The Company is an emerging growth company (EGC), as defined by the Jumpstart Our Business Startups Act of 2012 (the JOBS Act). The JOBS Act exempts EGCs from being required to comply with new or revised financial accounting standards until private companies are required to comply. Recursion has elected to use the extended transition period for new or revised financial accounting standards, although the Company may adopt certain new or revised accounting standards early. This may make comparisons of the Company’s financial statements with other public companies difficult because of the potential differences in accounting standards used.

Recursion may remain an EGC until the earlier of (1) December 31, 2026; (2) December 31 of the year in which we (a) become a “large accelerated filer;” or (b) have annual gross revenues of $1.07 billion or more; or (3) the date on which we have issued more than $1.0 billion of non-convertible debt over a three-year period.

Recent Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2016-02, Leases (ASU 2016-02). Under ASC (Accounting Standards Codification) 842 - Leases, the Company will be required to recognize a lease liability and a right-of-use asset for all leases (with the exception of short-term leases) on its Condensed Consolidated Balance Sheet at the commencement date of each lease. ASC 842 is effective for annual and interim periods beginning on or after December 15, 2021 and early adoption is permitted. The Company must adopt the standard using the modified retrospective approach either: (1) as of the earliest period presented and through the comparative periods in the entity’s financial statements or (2) as of the effective date of ASC 842, with a cumulative-effect adjustment to equity. The Company expects the adoption to materially increase assets and liabilities on the Condensed Consolidated Balance Sheets related to those leases classified as operating and not recognized on the Condensed Consolidated Balance Sheets under current GAAP. The Company is continuing to evaluate the effect that ASC 842 will have on its consolidated financial statements and related disclosures. The Company will adopt the new standard on January 1, 2022.

Note 3. Acquisitions

In July 2020, the Company entered into an asset purchase agreement to purchase 100% of the assets of Vium, Inc. (Vium) for a total cash consideration of $2.6 million. The primary purpose of the acquisition was to obtain Vium’s technology. This was a related party transaction, see Note 16, “Related Party Transactions” for additional details. The acquisition of Vium has been accounted for as a business combination using the acquisition method of accounting.

The following table summarizes fair values of assets acquired as of the July 2020 acquisition date:

(in thousands)		
Inventory	$	232
Property and equipment		14
Technology intangible asset		911
Other intangibles assets		642
Total identifiable net assets		1,799
Goodwill		801
Total assets acquired	$	2,600

The results of operations of Vium have been included in our Condensed Consolidated Statements of Operations since the date the business was acquired and were not significant. The technology intangible asset is being amortized on a straight-line basis over its three-year useful life. The inventory and other intangible assets were fully impaired at the time they were acquired as the Company did not intend to use them.

The goodwill includes the value of potential future technologies as well as the overall strategic benefits provided to the business.

Note 4. Supplemental Financial Information

Property and Equipment

(in thousands)	September 30, 2021	December 31, 2020
Lab equipment	$ 29,664	$ 19,701
Leasehold improvements	13,795	13,792
Office equipment	20,005	1,075
Construction in progress	8,198	1,361
Property and equipment, gross	71,662	35,929
Less: Accumulated depreciation	(16,223)	(9,962)
Property and equipment, net	$ 55,439	$ 25,967

Depreciation expense on property and equipment was $2.5 million and $6.3 million during the three and nine months ended September 30, 2021, respectively, and $1.1 million and $3.1 million during the three and nine months ended September 30, 2020, respectively.

For the nine months ended September 30, 2021, the Company purchased a Dell EMC supercomputer for $17.9 million. The purchase was classified as office equipment in the above table.

Accrued Expenses and Other Liabilities

(in thousands)	September 30, 2021	December 31, 2020
Accrued compensation	$ 7,261	$ 3,085
Accrued development expenses	3,813	2,289
Accrued early discovery expenses	1,520	338
Accrued investment purchases	5,898	—
Accrued construction	996	—
Accrued other expenses	5,625	4,773
Accrued expense and other liabilities	$ 25,113	$ 10,485

Interest Expense, net

(in thousands)	Three months ended September 30, 2021	Three months ended September 30, 2020	Nine months ended September 30, 2021	Nine months ended September 30, 2020
Interest expense	$ 220	$ 401	$ 2,971	$ 1,129
Interest income	(50)	(46)	(94)	(290)
Interest expense, net	$ 170	$ 355	$ 2,877	$ 839

For the nine months ended September 30, 2021, interest expense primarily related to changes in fair value of the Series A and B warrants (see Note 12, “Stock-based Compensation” for additional details on the warrants). The Company also had expenses for the Midcap loan and tenant improvement allowance notes (see Note 7, “Notes Payable” for additional details.) For the nine months ended September 30, 2020, interest expense included expenses on the Midcap loan, convertible notes and tenant improvement allowance notes (see Note 7, “Notes Payable” for additional details). Interest expense was included in “Other loss, net” on the Condensed Consolidated Statements of Operations.

Note 5. Investments

In August 2021, the Company invested cash in an investment portfolio. The primary objectives of the investment portfolio are to preserve principal, maintain prudent levels of liquidity and obtain investment returns. Recursion’s investment policy limits investments to certain types of debt and money market instruments issued by institutions with investment-grade credit ratings and it places restrictions on maturities and concentration by asset class and issuer.

The Company reviews the investments for declines in fair value below their cost basis each quarter or whenever circumstances indicate that the cost basis of an asset may not be recoverable and assesses whether the decline was due to credit-related factors or other factors. The evaluation is based on a number of factors, including the extent to which the fair value is below the cost basis; adverse conditions related specifically to the security, such as any changes to the credit rating of the security; and the intent to sell, or whether Recursion will more likely than not be required to sell the security before recovery of its amortized cost basis. The assessment of whether a security is impaired could change in the future based on new developments or changes in assumptions related to that particular security.

The following table summarizes the Company’s available-for-sale investments by type of security:

(in thousands)	September 30, 2021 Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair values
Money market funds	$ 187,225	$ —	$ —	$ 187,225
Corporate bonds	5,886	—	(1)	5,885
Certificates of deposit	21,450	1	(1)	21,450
Commercial paper	191,348	10	(7)	191,351
Total	$ 405,909	$ 11	$ (9)	$ 405,911

The following table summarizes the classification of the Company’s available-for-sale investments on the Condensed Consolidated Balance Sheets:

(in thousands)	September 30, 2021
Cash and cash equivalents	$ 221,722
Short-term investments	184,189
Total	$ 405,911

As of September 30, 2021, all of the Company's available-for-sale investments mature in one year or less.

The Company held a total of 16 positions, which were in an unrealized loss position as of September 30, 2021. The unrealized losses were primarily due to changes in interest rates. There were no significant unrealized losses as of September 30, 2021. Realized gains and losses on the Company's investments were insignificant during the three and nine months ended September 30, 2021. No impairments were recorded during the three and nine months ended September 30, 2021. Realized gains and losses on interest-bearing securities are recorded in Other income, net, in the Condensed Consolidated Statements of Income.

Note 6. Goodwill and Intangible Assets

Goodwill

The carrying amount of goodwill was $801 thousand as of September 30, 2021. There were no changes to the carrying amount of goodwill during the three and nine months ended September 30, 2021. For the three and nine months ended September 30, 2020, the goodwill addition related to the purchase of Vium (see Note 3, "Acquisitions" for additional details on the acquisition). No goodwill impairment was recorded during the three and nine months ended September 30, 2021 and 2020.

Intangible Assets, Net

The following table summarizes intangible assets:

	September 30, 2021			December 31, 2020		
(in thousands)	Gross carrying amount	Accumulated Amortization	Net carrying amount	Gross carrying amount	Accumulated Amortization	Net carrying amount
Definite-lived intangible asset	$ 911	$ (354)	$ 557	$ 911	$ (127)	$ 784
Indefinite-lived intangible asset	904	—	904	904	—	904
Intangible assets, net	$ 1,815	$ (354)	$ 1,461	$ 1,815	$ (127)	$ 1,688

Amortization expense was $76 thousand and $228 thousand during the three and nine months ended September 30, 2021, respectively. Amortization expense was $51 thousand during the three and nine months ended September 30, 2020. Amortization expense was included in research and development in the Condensed Consolidated Statements of Operations.

The indefinite-lived intangible asset represents the Recursion domain name that the Company purchased. No indefinite-lived intangible asset impairment charges were recorded during the three and nine months ended September 30, 2021. There were no indefinite-lived intangible assets on the Condensed Consolidated Balance Sheet as of September 30, 2020.

Note 7. Notes Payable

Midcap Financial

In September 2019, the Company entered into a new Credit and Security Agreement with Midcap Financial Trust (Midcap) and the other lenders party thereto (the Midcap loan agreement). The Midcap loan agreement provided for a term loan facility that included an initial tranche of $11.9 million. The Company used $11.2 million of the proceeds from the initial tranche to fully repay a previously outstanding term loan with Pacific Western Bank (Pacific). In July 2021, the Company paid the balance due under the Midcap loan agreement. The total amount paid was $12.7 million. The Company recorded an early extinguishment loss of $996 thousand, which was included in "Other expense, net" on the Condensed Consolidated Statements of Operations. As of December 31, 2020, the outstanding principal balance under the Midcap loan agreement was $11.9 million.

In 2019, the Company paid fees of approximately $298 thousand in connection with the origination of the Midcap Loan Agreement. These fees were deferred and recorded as a direct deduction from the carrying value of the loan payable and were amortized to interest expense over the expected remaining term of the agreement.

Pacific Western

In May 2018, Pacific issued a standby letter of credit of $3.8 million for the benefit of the Company's landlord, securing certain Company obligations relating to tenant improvements. This letter of credit was transferred to J.P. Morgan during the nine months ended September 30, 2021. See Note 15, "Fair Value Measurements" for additional details. As of December 31, 2020, the outstanding letter of credit was $3.8 million, for which the Company held $4.0 million of restricted cash as collateral.

Convertible Notes

In March and April of 2020, the Company issued convertible promissory notes for an aggregate principal amount of $6.4 million. Under certain conditions, the principal was convertible into an amount of equity with a fair value that exceeded the amount of the notes' principal on the conversion date. This feature of the notes was accounted for separately at fair value as a derivative liability. These notes converted to 1,203,231 shares of Series D Preferred Stock in September 2020. Upon conversion of the notes, the Company recorded the $1.6 million fair value of the derivative liability as equity on the Condensed Consolidated Balance Sheet. Changes in the fair value of the derivative were recorded in "Other loss, net" in the Condensed Consolidated Statements of Operations and were $161 thousand and $484 thousand during the three and nine months ended September 30, 2020.

Notes Payable for Tenant Improvement Allowance

In 2018, the Company borrowed $992 thousand, which was available as part of the Station 41 lease from its landlord for use on tenant improvements (see Note 8, "Commitments and Contingencies" for additional details). Under the terms of the lease, the note will be repaid over a 10-year period at an 8% interest rate.
Notes payable consisted of the following:

(in thousands)	September 30, 2021	December 31, 2020
Current portion of notes payable	$ 88	$ 1,073
Long-term portion of notes payable	656	11,615
Less: unamortized issuance costs	—	(201)
Notes payable, net	$ 744	$ 12,487

The following table presents information regarding the Company's debt principal repayment obligations as of September 30, 2021:

(in thousands)	Amount
2021	$ 21
2022	90
2023	97
2024	105
2025	114
Thereafter	317
Total debt principal payments	$ 744

Note 8. Commitments and Contingencies

Lease Obligations

The Company has entered into various long-term real estate leases primarily related to office, research and development (R&D) and operating activities. For the three and nine months ended September 30, 2021, total rent

expense was $1.7 million and $4.4 million, respectively. For the three and nine months ended September 30, 2020, total rent expense was $1.1 million and $3.2 million, respectively. The leases described below are classified as operating leases.

Komas Lease
In August 2016, the Company entered into a new facilities lease, with the right of use and payments beginning in January 2017. The term of the lease is 7 years. This lease includes provisions for escalating rent payments. Rent expense is recognized on a straight-line basis over the term of the lease. This lease included an allowance for tenant improvements. Tenant improvements were recorded as property and equipment and are being depreciated over the term of the lease. In conjunction with the allowance for tenant improvements, the Company recorded a lease incentive obligation of $847 thousand which is being amortized over the term of the lease as a reduction to rent expense. As of September 30, 2021, the unamortized lease incentive obligation was $282 thousand.

Station 41 Lease
In August 2017, the Company entered into a new facilities lease, with the right of use beginning in December 2017 and payments beginning in June 2018. The term of the lease is 10 years, with one five-year renewal option. This lease includes provisions for escalating rent payments. Rent expense is recognized straight-line over the term of the lease. This lease included an allowance for tenant improvements of $4.0 million, the full amount of which was drawn in 2017. Tenant improvements were recorded as property and equipment and are being depreciated over the remaining term of the lease. The Company recorded a leasehold obligation for tenant improvements, which is being amortized over the term of the lease as a reduction to rent expense. As of September 30, 2021, the unamortized lease incentive obligation was $2.5 million.

In 2018, the Company elected to draw an additional tenant improvement loan of $992 thousand available under the Station 41 lease. This loan is incorporated into and acts to increase the base rent over the remaining life of the lease. The increase in rent includes a charge for interest, which accrues on the principal amount outstanding at a rate equal to 8%. The Company accounts for this additional tenant improvement loan as a note payable on the Condensed Consolidated Balance Sheets with the current portion included in the Current Portion of Notes Payable.

In 2019, the Company amended the Station 41 lease to include additional space in the conjoining unit with the right to use the new space beginning in June 2020 for an additional seven years. This amendment for the extra space includes provisions for escalating rent payments. Rent expense is recognized straight-line over the term of the lease.

Milpitas Lease
In August 2019, the Company entered into a new facilities lease, with the right of use and payments beginning in August 2019. The term of the lease is 9 years. This lease includes provisions for escalating rent payments. Rent expense is recognized on a straight-line basis over the term of the lease.

Station 56 Lease
In January 2021, the Company entered into a new facilities lease with 91,478 square feet adjacent to the Station 41 lease. The right of use began in August 2021 and the term of the lease is approximately 11 years with a five-year renewal option. The lease includes provisions for escalating rent payments, with total minimum payments of $32.0 million. Rent expense is recognized straight-line over the term of the lease.

The lease includes a tenant improvement allowance of up to approximately $10.1 million. As of September 30, 2021, $2.2 million of the tenant improvement allowance has been utilized. Tenant improvements were recorded as property and equipment and are being depreciated over the remaining term of the lease. The Company recorded a leasehold obligation for the tenant improvements, which is being amortized over the term of the lease as a reduction to rent expense. As of September 30, 2021, the unamortized lease incentive obligation was $2.1 million.

Future Minimum Lease Payments
Future minimum commitments as of September 30, 2021 under the Company's lease agreements are as follows:

(in thousands)		Amount
2021	$	977
2022		3,977
2023		7,053
2024		7,325
2025		7,513
Thereafter		34,187
Total Minimum Payments	$	61,032

Contract Obligations
In the normal course of business, the Company enters into contracts with clinical research organizations, drug manufacturers and other vendors for preclinical and clinical research studies, research and development supplies and other services and products for operating purposes. These contracts generally provide for termination on notice and are cancellable contracts.

Indemnification

The Company has agreed to indemnify its officers and directors for certain events or occurrences, while the officer or director is or was serving at the Company's request in such capacity. The Company purchases directors and officers liability insurance coverage that provides for reimbursement to the Company for covered obligations and this is intended to limit the Company's exposure and enable it to recover a portion of any amounts it pays under its indemnification obligations. The Company had no liabilities recorded for these agreements as of September 30, 2021 and December 31, 2020, as no amounts in excess of insurance coverage are probable or estimable.

Employee Agreements

The Company has signed employment agreements with certain key employees pursuant to which, if their employment is terminated following a change of control of the Company, the employees are entitled to receive certain benefits, including accelerated vesting of equity incentives.

Legal Matters

The Company is not currently a party to any material litigation or other material legal proceedings. The Company may, from time to time, be involved in various legal proceedings arising in the normal course of business. An unfavorable resolution of any such matter could materially affect the Company's future financial position, results of operations or cash flows.

Note 9. Convertible Preferred Stock

The Company has issued preferred stock as part of various financing events. In April 2021, all outstanding shares of convertible preferred stock converted into 115,598,018 shares of Class A common stock as part of the IPO (see Note 10, "Common Stock" for additional details on the IPO). There was no convertible preferred stock outstanding as of September 30, 2021.

No convertible preferred stock was issued during the three and nine months ended September 30, 2021. The Company issued 35,349,630 shares of Series D convertible preferred stock for an aggregate purchase price of $235.2 million ($6.70 per purchased share and $5.37 per converted share) during the three and nine months ended September 30, 2020. As part of the Series D issuance, outstanding convertible notes were converted into Series D shares. As of September 30, 2020, there were no cumulative dividends owed or in arrears on the preferred stock.

Convertible preferred stock consisted of the following as of December 31, 2020:

(in thousands except share data)	Preferred Shares Authorized	Preferred Shares Issued and Outstanding	Carrying Value	Liquidation Preferences	Shares of Common Stock Issuable Upon Conversion
Series A	30,078,402	29,965,754	$ 21,281	$ 21,281	29,965,754
Series A-1	4,975,521	4,975,520	—	—	4,975,520
Series B	21,497,667	21,471,898	59,913	60,000	21,471,898
Series C	18,956,354	18,776,345	119,915	122,058	22,286,298
Series D	45,926,769	36,898,548	247,203	247,511	36,898,548
Total convertible preferred stock	121,434,713	112,088,065	$ 448,312	$ 450,850	115,598,018

Balance Sheet Classification

The Company's convertible preferred stock was classified outside of stockholders' equity (deficit) on the Condensed Consolidated Balance Sheets because the holders of such shares have liquidation rights in the event of a deemed liquidation that, in certain situations, are not solely within the control of the Company and would require the redemption of the then-outstanding convertible preferred stock. The convertible preferred stock was not redeemable, except in the event of a deemed liquidation event.

Note 10. Common Stock

Each share of Class A common stock entitles the holder to one vote per share and each share of Class B common stock entitles the holder to 10 votes per share on all matters submitted to a vote of the Company's stockholders. Common stockholders are entitled to receive dividends, as may be declared by the Company's board of directors. As of September 30, 2021 and December 31, 2020, no dividends had been declared.

Initial Public Offering

On April 20, 2021, the Company closed its IPO and issued 27,878,787 shares of its Class A common stock at a price of $18.00 per share for net proceeds of $462.4 million, after deducting underwriting discounts and commissions of $35.1 million and other offering costs of $4.3 million. In connection with the IPO, all shares of convertible preferred stock converted into 115,598,018 shares of Class A common stock.

Stock Split

In April 2021, the Board of Directors approved a 1.5-for-1 forward stock split of the Company's common and convertible preferred stock. Each shareholder of record on April 9, 2021 received 1.5 shares for each then-held share. The split proportionally increased the authorized shares and did not change the par values of the Company's stock. The split affected all stockholders uniformly and did not affect any stockholder's ownership percentage of the Company's shares of common stock. All shares and per share amounts presented within these Condensed Consolidated Financial Statements were adjusted to reflect the forward stock split for all periods presented.

Class A and B Common Shares Authorization

In April 2021, the Company's Board of Directors authorized two classes of common stock, Class A and Class B. The rights of the holders of Class A and B common stock are identical, except with respect to voting and conversion. Each share of Class A common stock is entitled to one vote per share. Each share of Class B common stock is entitled to 10 votes per share and is convertible at any time into one share of Class A common stock.

All Class B common stock is held by Christopher Gibson, Ph.D., our Chief Executive Officer (CEO), or his affiliate. As of September 30, 2021, Dr. Gibson and his affiliate held outstanding shares of Class B common stock representing approximately 37% of the voting power of the Company's outstanding shares. This voting power may increase over time as Dr. Gibson vests in and exercises equity awards outstanding. If all the equity awards held by

Dr. Gibson had been fully vested and exercised and exchanged for shares of Class B common stock as of September 30, 2021, Dr. Gibson and his affiliate would hold approximately 41% of the voting power of the Company's outstanding shares. As a result, Dr. Gibson will be able to significantly influence any action requiring the approval of Recursion stockholders, including the election of the board of directors; the adoption of amendments to the Company's certificate of incorporation and bylaws; and the approval of any merger, consolidation, sale of all or substantially all of the Company's assets, or other major corporate transaction.

Note 11. Collaborative Development Contracts

Bayer AG

In August 2020, the Company entered into a Research Collaboration and Option Agreement (the Bayer Agreement) with Bayer AG (Bayer) for a five-year term pursuant to which the Company and Bayer may initiate approximately 10 research projects related to fibrosis across multiple organ systems, including the lung, liver and heart. Under the agreement, the Company contributed compounds from our proprietary library and Bayer contributed compounds from its proprietary library and will contribute scientific expertise throughout the collaboration.

Under the terms of the agreement, the Company received a non-refundable upfront payment of $30.0 million, which was recorded as unearned revenue on the Condensed Consolidated Balance Sheet. The Company determined that it has one performance obligation under the agreement, which is to perform research and development services for Bayer. Recursion determined the transaction price to be the $30.0 million upfront payment received and allocated the amount to the single performance obligation. The Company is recognizing the revenue over time using a cost-based input method, based on labor costs incurred to perform the research and development services. This method of recognizing revenue requires the Company to make estimates of the total costs to provide the services required under the performance obligation. A significant change in these estimates could have a material effect on the timing and amount of revenue recognized in future periods.

For the three and nine months ended September 30, 2021, the Company recognized $2.5 million and $7.5 million, respectively, of revenue resulting from the collaboration. There was $10.0 million and $9.2 million of current and non-current unearned revenue, respectively, remaining as of September 30, 2021. The allocation of unearned revenue between current and non-current is based on Recursion's estimates of when the Company expects to incur the related costs.

Under each research project, the Company will work with Bayer to identify potential candidates for development. Under the agreement, Bayer has the first option for licenses to potential candidates. Each such license could potentially result in option exercise fees and development and commercial milestone payments payable to the Company, with an aggregate value of up to approximately $100.0 million (for an option on a lead series) or up to approximately $120.0 million (for an option on a development candidate), as well as tiered royalties for each such license, ranging from low- to mid-single digit percentages of sales, depending on commercial success.

Note 12. Stock-Based Compensation

In April 2021, the Board of Directors and the stockholders of the Company adopted the 2021 Equity Incentive Plan (the 2021 Plan). Under the 2021 Plan, 16,186,000 shares of Class A common stock were reserved. Additionally, shares were reserved for all outstanding awards under the previous 2016 Plan. The Company may grant stock options, restricted stock units (RSUs), stock appreciation rights, restricted stock awards and other forms of stock-based compensation.

As of September 30, 2021, 15,580,505 shares of Class A common stock were available for grant.

The following table presents the classification of stock-based compensation expense for stock options and RSUs for employees and non-employees within the Condensed Consolidated Statements of Operations:

	Three months ended September 30,		Nine months ended September 30,	
(in thousands)	2021	2020	2021	2020
Research and development	$ 1,305	$ 312	$ 3,000	$ 1,288
General and administrative	1,791	512	6,771	1,570
Total	$ 3,096	$ 824	$ 9,771	$ 2,858

Stock Options

Stock options generally vest over four years and expire no later than 10 years from the date of grant. Stock option activity during the nine months ended September 30, 2021 was as follows:

(in thousands except share data)	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (In Years)	Aggregate Intrinsic Value
Outstanding as of December 31, 2020	20,937,443	$ 1.85	8.5	$ 12,956
Granted	2,840,467	10.77		
Cancelled	(1,203,239)	2.24		
Exercised	(2,711,021)	1.22		14,376
Outstanding as of September 30, 2021	19,863,650	$ 3.03	8.2	$ 396,084
Exercisable as of September 30, 2021	7,963,568	$ 1.71	7.2	$ 169,803

The fair value of options granted to employees is calculated on the grant date using the Black-Scholes option valuation model. The weighted-average grant-date fair values of stock options granted during the nine months ended September 30, 2021 and 2020 were $6.41 and $1.49, respectively.

The following weighted-average assumptions were used to calculate the grant-date fair value of stock options:

	Nine months ended September 30,	
	2021	2020
Expected term (in years)	6.2	6.2
Expected volatility	66 %	65 %
Expected dividend yield	—	—
Risk-free interest rate	0.97 %	1.00 %

In February 2021, the Company granted 150,000 shares of stock options with a performance and service condition that had a fair value of $358 thousand. The grant was fully expensed during the three months ended June 30, 2021 as the performance and service conditions were met.

In March 2020, the Company granted 1,500,000 shares of stock options with performance, market and service conditions. At grant date, the Company estimated that the fair value of the options was approximately $2.0 million. For the three and nine months ended September 30, 2021, $41 thousand and $1.6 million of expense was recorded, respectively, as several of the conditions were met during the three months ended June 30, 2021. For the three and nine months ended September 30, 2020, no expense was recorded as the performance conditions were not considered probable.

As of September 30, 2021, $27.9 million of unrecognized compensation cost related to stock options is expected to be recognized as expense over approximately the next three years.

RSUs

In April 2021, Recursion redesigned certain aspects of its long-term incentive program. As a result, equity awards granted to employees since the redesign generally consist of a combination of stock options and RSUs. RSUs awarded to employees pursuant to the 2021 Plan generally vest over four years. The weighted-average grant-date fair value of RSUs generally is determined based on the number of units granted and the quoted price of Recursion's common stock on the date of grant.

The following table summarizes Recursion's RSU activity during the nine months ended September 30, 2021:

	Stock units	Weighted-average grant date fair value
Outstanding as of December 31, 2020	—	$ —
Granted	143,723	29.46
Vested	(2,528)	34.82
Forfeited	(673)	29.42
Outstanding as of September 30, 2021	140,522	$ 29.36

As of September 30, 2021, $3.6 million of unrecognized compensation cost related to RSUs is expected to be recognized as expense over approximately the next three years.

Employee Share Purchase Plan (ESPP)

In April 2021, the Board of Directors and stockholders of the Company adopted the 2021 Employee Stock Purchase Plan (the 2021 ESPP). Under the 2021 ESPP, 3,238,000 shares of Class A common stock were reserved. The 2021 ESPP has consecutive six-month offering periods. The offering periods are scheduled to start on the first trading day on or after May 20 and November 20 of each year, except the first offering period, which commenced on the Plan Effectiveness Date and will end on the first trading day on or after November 20, 2021. The second offering period will commence on the first trading day on or after November 20, 2021. The per share purchase price will be 85% of the lower of the fair market value on (1) the first trading day of the offering period or (2) the exercise date.

The fair value of the ESPP grants is measured at grant date. The fair value is determined considering the purchase discount and the fair value of the look-back feature. Black-Scholes pricing models are used to calculate the fair value of the look-back feature. The weighted-average assumptions used in the Black-Scholes models were as follows:

	Nine months ended September 30, 2021
Expected term (in years)	0.6
Expected volatility	69 %
Expected dividend yield	—
Risk-free interest rate	0.04 %

As of September 30, 2021, no shares were issued under the 2021 ESPP. For the three and nine months ended September 30, 2021, Recursion recognized expense of $233 thousand and $450 thousand, respectively. As of September 30, 2021, $136 thousand of unrecognized compensation cost related to the 2021 ESPP is expected to be recognized as expense over approximately the next two months.

Warrants

In connection with the execution of the Pacific loan agreement (see Note 7, “Notes Payable” for additional details), the Company issued to Pacific fully vested warrants to purchase 84,486 shares of Series A Preferred Stock (Series A warrants) at a purchase price of $0.71 per share. In May 2017, the Company drew on additional borrowing capacity under the Pacific loan agreement, which required the Company to issue additional fully vested warrants for 28,161 shares of Series A Preferred Stock at a purchase price of $0.71 per share. These Series A warrants were exercised in April 2021. As of December 31, 2020, their fair value was $77 thousand.

In July 2018, the Company drew on additional borrowing capacity under an amended agreement. This required the Company to issue fully vested warrants to purchase 25,762 shares of Series B Preferred Stock (Series B warrants) at a purchase price of $2.79 per share. These Series B warrants were exercised in April 2021. As of December 31, 2020, their fair value was $48 thousand.

In January 2020, the Company issued warrants to purchase 180,000 shares of Series C Preferred Stock (Series C warrants) at a purchase price of $6.51 per share as part of a services agreement. The warrants vest ratably over 18

months. The Series C warrants remained outstanding and were fully vested and exercisable as of September 30, 2021. The grant date fair value was $4.10 per share.

The FASB has issued accounting guidance on the classification of freestanding warrants and other similar instruments for shares that are redeemable (either puttable or mandatorily redeemable). The guidance requires liability classification for certain warrants that are exercisable into convertible preferred stock. The initial fair values of the Series A and B warrants were recorded as debt issuance costs, which resulted in a reduction in the carrying value of the debt and subsequent accretion. The Company remeasured the Series A and B warrants on each Condensed Consolidated Balance Sheet date. The change in valuation was recorded in the Condensed Consolidated Statements of Operations in “Other loss, net.” The liability was recorded to equity upon the exercise of the Series A and B warrants.

The Series C warrants’ compensation expense was recorded in general and administrative expense ratably over the requisite service period based on the award’s fair value at the date of grant. These warrants were classified as equity as they were issued to non-employees for services and the convertible preferred stock was not redeemable, except in the event of a deemed liquidation event, which was not considered probable.

The following is a summary of the changes in the Company’s Series A and B warrant liability balance during the nine months ended September 30, 2021 and 2020:

(in thousands)		
Balance as of December 31, 2019	$	128
Net increase in fair value of warrants		2
Balance as of September 30, 2020	$	130

Balance as of December 31, 2020	$	125
Increase in fair value of warrants		2,215
Recorded in equity upon exercise		(2,340)
Balance as of September 30, 2021	$	—

Note 13. Income Taxes

The Company did not record any income tax expense during the three and nine months ended September 30, 2021 and 2020. The Company has historically incurred operating losses and maintains a full valuation allowance against its net deferred tax assets. Valuation allowances are recorded when the expected realization of the deferred tax assets does not meet a “more likely than not” criterion. Realization of the Company’s deferred tax assets are dependent upon the generation of future taxable income, the amount and timing of which are uncertain.

Net operating loss carryforwards (NOLs) and tax credit carry-forwards are subject to review by the Internal Revenue Service (IRS) and may become subject to annual limitations due to ownership changes that have occurred previously or that could occur in the future under Section 382 of the Internal Revenue Code. The Company has not conducted a study to assess whether a change of control has occurred or whether there have been multiple changes of control since inception due to the significant complexity and cost associated with such a study. Any limitation may result in expiration of a portion of the NOLs or research and development tax credit carryforwards before utilization. Further, until a study is completed and any limitation is known, no amounts are being presented as an uncertain tax position.

The Company files income tax returns in the United States, Utah and California. The Company is not currently under examination in any of these jurisdictions. The Company is subject to income tax examinations on all federal returns since the 2018 tax return.

Note 14. Net Loss Per Share

For the three and nine months ended September 30, 2021, Recursion calculated net loss per share of Class A and Class B common stock using the two-class method. Basic net loss per share is computed using the weighted-average number of shares outstanding during the period. Diluted net loss per share is computed using the weighted-average number of shares and the effect of potentially dilutive securities outstanding during the period. Potentially dilutive securities consist of stock options and other contingently issuable shares. For periods presented in which the Company reports a net loss, all potentially dilutive shares are anti-dilutive and as such are excluded from the calculation. For the three and nine months ended September 30, 2021, the Company reported a net loss and therefore basic and diluted loss per share are the same.

The rights, including the liquidation and dividend rights, of the holders of the Company's Class A and Class B common stock are identical, except with respect to voting. As a result, the undistributed earnings for each period are allocated based on the contractual participation rights of the Class A and Class B common shares as if the earnings for the period had been distributed. As the liquidation and dividend rights are identical, the undistributed earnings are allocated on a proportionate basis and the resulting amount per share for Class A and Class B common stock was the same during the three and nine months ended September 30, 2021.

Recursion issued certain shares of convertible preferred stock that were outstanding until April 2021 and were concluded to be participating securities. For the three and nine months ended September 30, 2020, there was only one class of common stock outstanding. Due to the presence of participating securities, Recursion calculated net loss per share for the three and nine months ended September 30, 2020 using the more dilutive of the treasury stock or the two-class method. For periods presented in which the Company reports a net loss, the losses are not allocated to the participating securities. As the Company reported a net loss during the three and nine months ended September 30, 2020, diluted net loss per share was the same as basic net loss per share, since dilutive common shares are not assumed to have been issued if their effect is anti-dilutive. The preferred stock converted to common stock in April 2021 as part of the Company's IPO. See Note 10, "Common stock" for additional details.

The following tables set forth the computation of basic and diluted net loss per share of Class A and Class B common stock during 2021:

	Three months ended September 30, 2021		Nine months ended September 30, 2021	
(in thousands, except share amount)	**Class A**	**Class B**	**Class A**	**Class B**
Numerator:				
Allocation of undistributed earnings	$ (44,763)	$ (2,664)	$ (111,133)	$ (10,413)
Denominator:				
Weighted average common shares outstanding	159,065,667	9,467,883	101,045,348	9,467,883
Net loss per share, basic and diluted	$ (0.28)	$ (0.28)	$ (1.10)	$ (1.10)

The Company excluded the following potential common shares from the computation of diluted net loss per share for the periods indicated because including them would have had an anti-dilutive effect:

	Three months ended September 30, 2021		Nine months ended September 30, 2021	
	Class A	**Class B**	**Class A**	**Class B**
Convertible preferred stock	—	—	46,324,206	—
Stock options and RSUs	16,764,023	—	15,506,429	—
Warrants	163,958	—	180,479	—
ESPP	37,917	—	5,109	—
Total	16,965,898	—	62,016,223	—

The following table sets forth the computation of basic and diluted net loss per share during 2020:

(in thousands, except share amounts)	Three months ended September 30, 2020	Nine months ended September 30, 2020
Numerator:		
Net loss	$ (23,873)	$ (61,240)
Denominator:		
Weighted average common shares outstanding	21,817,900	21,704,008
Net loss per share, basic and diluted	$ (1.09)	$ (2.82)

The Company excluded the following potential common shares from the computation of diluted net loss per share for the periods indicated because including them would have had an anti-dilutive effect:

	Three months ended September 30, 2020	Nine months ended September 30, 2020
Convertible preferred stock	89,839,055	82,453,474
Stock options	3,576,910	3,589,986
Warrants	115,107	115,107
Total	93,531,072	86,158,567

Note 15. Fair Value Measurements

The fair value hierarchy consists of the following three levels:

- Level 1 — Valuations based on unadjusted quoted prices in active markets for identical assets that the company has the ability to access;
- Level 2 — Valuations based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-based valuations in which all significant inputs are observable in the market; and
- Level 3 — Valuations using significant inputs that are unobservable in the market and include the use of judgment by the company's management about the assumptions market participants would use in pricing the asset or liability.

The Company is required to maintain a cash balance in a collateralized account to secure the Company’s credit cards. Additionally, the Company holds restricted cash related to an outstanding letter of credit issued by J.P. Morgan, which was obtained to secure certain Company obligations relating to tenant improvements.

The Company measured the Series A and B preferred stock warrant liabilities at fair value using a Black-Scholes option-pricing model. See Note 12, “Stock-based Compensation” for details on the valuation of the warrant liabilities and a reconciliation of the balance.

The following tables summarize the Company's assets and liabilities that are measured at fair value on a recurring basis:

(in thousands)	September 30, 2021	Basis of fair value measurement Level 1	Level 2	Level 3
Assets				
Cash equivalents:				
Money market funds	187,225	187,225	—	—
Commercial paper	34,497	—	34,497	—
Restricted cash	10,233	10,233	—	—
Investments:				
Corporate bonds	5,884	—	5,884	—
Certificates of deposit	21,450	—	21,450	—
Commercial paper	156,854	—	156,854	—
Total assets	$ 416,143	$ 197,458	$ 218,685	$ —

(in thousands)	December 31, 2020	Basis of fair value measurement Level 1	Level 2	Level 3
Assets				
Restricted cash	5,041	5,041	—	—
Total assets	$ 5,041	$ 5,041	$ —	$ —
Liabilities				
Warrant liability	$ 125	$ —	$ —	$ 125
Total liabilities	$ 125	$ —	$ —	$ 125

In addition to the financial instruments that are recognized at fair value on the Condensed Consolidated Balance Sheets, the Company has certain financial instruments that are recognized at amortized cost or some basis other than fair value. The carrying amount of these instruments are considered to be representative of their approximate fair values.

The following tables summarize the Company's financial instruments that are not measured at fair value:

(in thousands)	Book values September 30, 2021	December 31, 2020	Fair values September 30, 2021	December 31, 2020
Liabilities				
Current portion of notes payable	$ 88	$ 1,073	$ 88	$ 1,073
Notes payable, net of current portion	656	11,414	656	11,414
Total liabilities	$ 744	$ 12,487	$ 744	$ 12,487

Note 16. Related Party Transactions

On December 5, 2017, the Company entered into a loan agreement with its CEO to provide a loan of $595 thousand. The loan had a seven-year term. As of September 30, 2021 and 2020, no amount remained outstanding on the loan as the balance was fully paid during the nine months ended September 30, 2020.

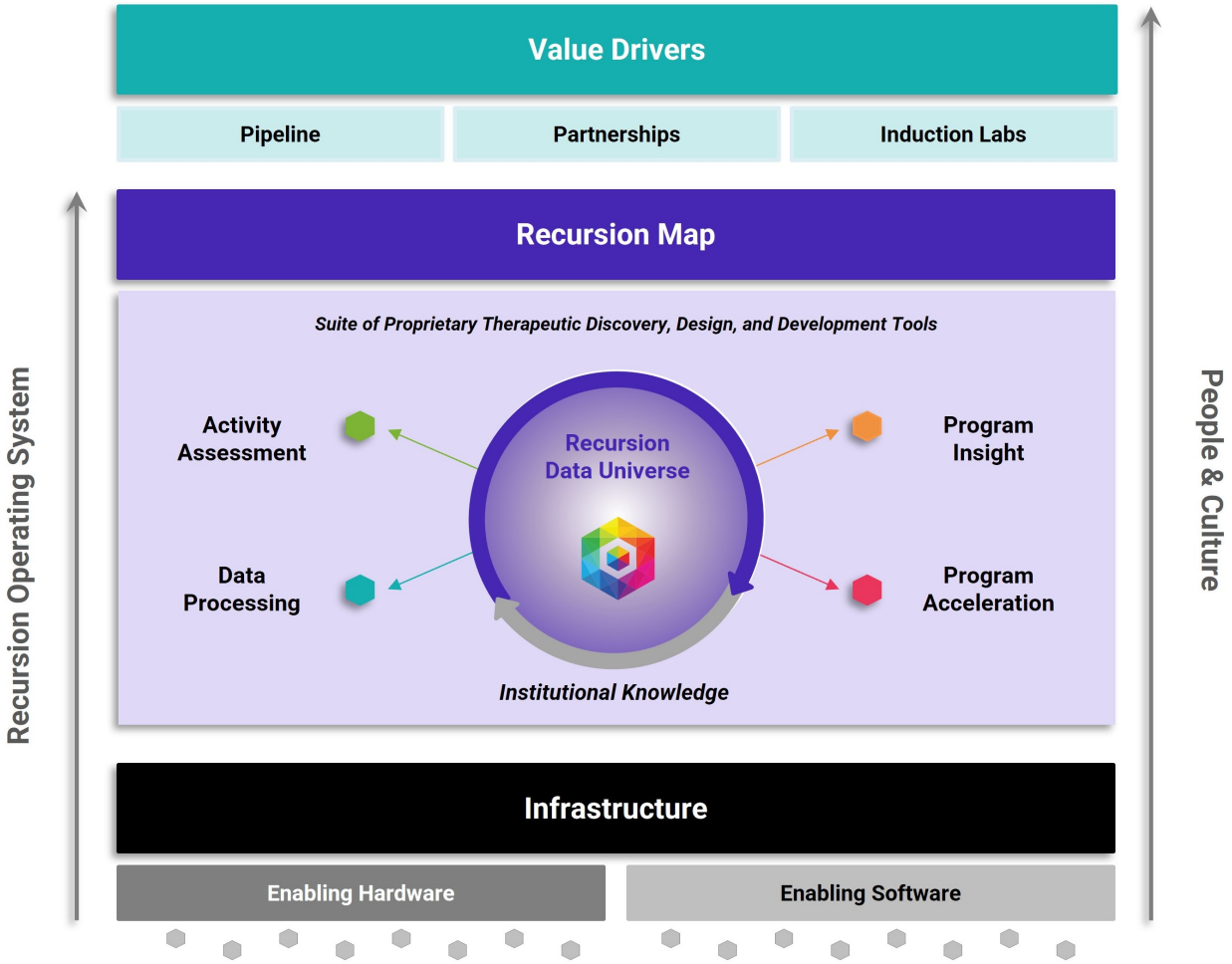
The acquisition of Vium was a related party transaction due to the fact that Vium was affiliated with certain investors of the Company. See Note 3, “Acquisitions” for additional details on the acquisition.

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

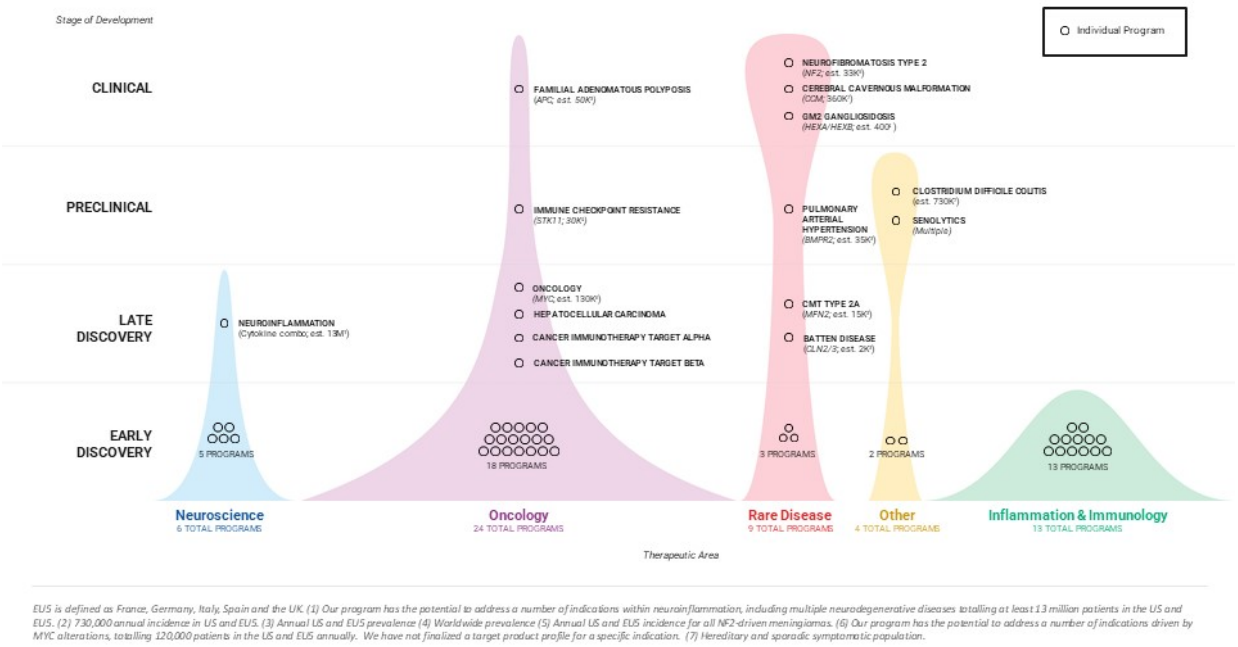
The following is a discussion and analysis of the financial condition of Recursion Pharmaceuticals, Inc. (Recursion, the Company, we, us or our) as of September 30, 2021 and December 31, 2020 and the results of operations during the three and nine months ended September 30, 2021 and 2020. This commentary should be read in conjunction with the unaudited Condensed Consolidated Financial Statements and accompanying notes appearing in Item 1, “Financial Statements” and the Company’s audited consolidated financial statements and accompanying notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in the final prospectus for our initial public offering (IPO), which was filed with the Securities and Exchange Commission (SEC), pursuant to Rule 424(b)(4) on April 16, 2021 (the Final Prospectus). This discussion, particularly information with respect to our future results of operations or financial condition, business strategy and plans and objectives of management for future operations, includes forward-looking statements that involve risks and uncertainties as described under the heading "Note About Forward-Looking Statements" in this Quarterly Report on Form 10-Q. You should review the disclosure under the heading "Risk Factors" in this Quarterly Report on Form 10-Q for a discussion of important factors that could cause our actual results to differ materially from those anticipated in these forward-looking statements.

Overview

We are a clinical-stage biotechnology company decoding biology by integrating technological innovations across biology, chemistry, automation, data science, and engineering, with the goal of radically improving the lives of patients and industrializing drug discovery. Central to our mission is the Recursion Operating System, or the Recursion OS, that combines an advanced infrastructure layer to generate what we believe is one of the world’s largest and fastest-growing proprietary biological and chemical datasets, and the Recursion Map, a suite of custom software, algorithms, and machine learning tools that we use to explore foundational biology unconstrained by human bias and navigate to new biological insights which may accelerate our programs. We believe that the combination of wet-lab biology and *in silico* tools in our closed-loop system differentiates us from others within the industry. Similarly, our balanced team of life scientists and computational and technical experts creates an environment where empirical data, statistical rigor, and creative thinking are brought to bear on our decisions. To date, we have leveraged our Recursion OS, which is depicted below, to create three value drivers: i) advancement of our internally-developed programs, including four clinical-stage assets, focused on areas of significant unmet need, several of which have market opportunities in excess of $1.0 billion in annual sales, ii) strategic partnerships with leading biopharmaceutical companies, and iii) Induction Labs, a growth engine created to explore new extensions of the Recursion OS both within and beyond therapeutics. The number of programs we are advancing in research and development has more than doubled since 2019. Although we cannot provide any guarantee that we will achieve similar timelines with future product candidates, we believe we will be able to continue accelerating the pace of program additions in the future. As such, we are a biotechnology company scaling more like a technology company.



Recursion finished the third quarter of 2021 with a portfolio of 4 clinical stage programs, 4 preclinical programs, 7 late discovery programs, and 41 early discovery programs. Additionally, Recursion continued scaling the total number of executed phenomic experiments to approximately 95 million, the size of its proprietary data universe to over 11 petabytes, and the number of biological inferences to approximately 200 billion. Data have been generated on the Recursion OS across 38 human cell types, an in-house chemical library of over 717 thousand compounds, and an *in silico* library of 12 billion small molecules, by a growing team of more than 330 Recursionauts that is balanced between life scientists and computational and technical experts.



EU5 is defined as France, Germany, Italy, Spain and the UK. (1) Our program has the potential to address a number of indications within neuroinflammation, including multiple neurodegenerative diseases totalling at least 13 million patients in the US and EU5. (2) 730,000 annual incidence in US and EU5. (3) Annual US and EU5 prevalence (4) Worldwide prevalence (5) Annual US and EU5 incidence for all NF2-driven meningiomas. (6) Our program has the potential to address a number of indications driven by MYC alterations, totalling 120,000 patients in the US and EU5 annually. We have not finalized a target product profile for a specific indication. (7) Hereditary and sporadic symptomatic population.

Summary of Business Highlights

Clinical Programs

- **Neurofibromatosis type 2 (NF2) (REC-2282):** In early October, we received Fast Track Designation for REC-2282 from the FDA for the potential treatment of NF2 meningiomas. We plan to initiate a parallel group, two stage, Phase 2/3, randomized, multicenter study in early 2022.
- **Cerebral cavernous malformation (CCM) (REC-994):** We plan to initiate a Phase 2, double-blind, placebo-controlled safety, tolerability and exploratory efficacy study of this candidate in early 2022.
- **Familial adenomatous polyposis (FAP) (REC-4881):** In September we received Orphan Drug Designation for REC-4881 from the FDA for the potential treatment of Familial Adenomatous Polyposis. We plan to initiate a Phase 2, randomized, double-blind, placebo-controlled study to evaluate safety, pharmacokinetics, and efficacy in the first half of 2022.
- **GM2 gangliosidosis (REC-3599):** We plan to initiate a Phase 2 study of this candidate in the first half of 2022.

Preclinical Programs

- **Clostridium difficile colitis (REC-3964):** We expanded our medicinal chemistry team and digital chemistry tools and made progress in IND-enabling studies for REC-3964, which is the most advanced New Chemical Entity developed by the Recursion OS.

Bayer AG Partnership

We continue to advance our collaboration with Bayer to discover small molecule drug candidates with the potential to treat fibrotic diseases. We have multiple programs progressing simultaneously with our partner.

Recursion OS

- **Biological Contexts:** We advanced our capabilities to model diseases in multiple biological contexts, including new types of biological perturbations beyond CRISPR-based knockouts, complex cell type

onboarding, and organoid model systems. Moreover, we made progress on multiple maps in iPSC-derived neural cell types.

- **Mechanisms of Action:** We improved our computational methods to identify mechanisms of action and used this technology to increase our ability to screen out compounds with potentially toxic effects for multiple programs earlier than is possible with traditional approaches. We believe that such methods will better enable us to advance the most promising novel chemical compounds through discovery.
- **Transcriptomics Validation:** We made significant improvements to our transcriptomics protocols to enable increases in throughput. Additionally, we have been optimizing our ability to use transcriptomics signatures for compound characterization.

Facilities and Manufacturing

We continued to make progress in expanding our current headquarters and creating a chemistry, manufacturing and controls (CMC) site in Salt Lake City. These spaces are designed with flexibility in mind to enable next generation automated workflows and instruments for compound, tissue culture, and biobank management to further industrialize the drug discovery and development process.

Financing and Operations

We were incorporated in November 2013. On April 20, 2021, we closed our IPO and issued 27,878,787 shares of Class A common stock at a price of $18.00 per share, raising gross and net proceeds of $501.8 million and $462.4 million, respectively. Prior to our IPO, we had raised approximately $448.9 million in equity financing from investors in addition to $30.0 million in an upfront payment from our strategic partnership with Bayer AG (Bayer).

We use the capital we have raised to fund operations and investing activities across platform research operations, drug discovery, clinical development, digital and other infrastructure, creation of our portfolio of intellectual property and administrative support. We do not have any products approved for commercial sale and have not generated any revenues from product sales. We had cash, cash equivalents and investments of $578.9 million as of September 30, 2021. Based on our current operating plan, we believe that our existing cash and cash equivalents will be sufficient to meet our working capital and capital expenditure needs at least into 2023.

Since inception, we have incurred significant operating losses. Our net losses were $47.4 million and $121.5 million during the three and nine months ended September 30, 2021, respectively. Our net losses were $23.9 million and $61.2 million during the three and nine months ended September 30, 2020, respectively. As of September 30, 2021, our accumulated deficit was $335.1 million. We anticipate that our expenses and operating losses will increase substantially over the foreseeable future. The expected increase in expenses will be driven in large part by our ongoing activities, if and as we: continue to advance our platform; continue preclinical development of our current and future product candidates and initiate additional preclinical studies; commence clinical studies of our current and future product candidates; establish our manufacturing capability, including developing our contract development and manufacturing relationships and building our internal manufacturing facilities; acquire and license technologies aligned with our platform; seek regulatory approval of our current and future product candidates; expand our operational, financial and management systems and increase personnel, including personnel to support our preclinical and clinical development, manufacturing and commercialization efforts; continue to develop, grow, perfect and defend our intellectual property portfolio; and incur additional legal, accounting, or other expenses in operating our business, including the additional costs associated with operating as a public company.

We invest in new technologies to expand our platform and plan to build world class capabilities in key areas of manufacturing sciences and operations, including small molecule production, novel chemical entity development, product characterization and process analytics. Our investments may also include scaled research solutions, scaled infrastructure, as well as novel technologies to improve efficiency, characterization and scalability of manufacturing.

We anticipate that we will need to raise additional financing in the future to fund our operations, including the commercialization of any approved product candidates. Until such time, if ever, as we can generate significant product revenue, we expect to finance our operations with our existing cash and cash equivalents, any future equity or debt financings and upfront, milestone and royalty payments, if any, received under current or future license or collaboration agreements. We may not be able to raise additional capital on terms acceptable to us or at all. If we are unable to raise additional capital when desired, our business, results of operations and financial condition may be adversely affected.

Components of Operating Results

Revenues

To date, our business has generated revenue from two sources: (i) grant revenue and (ii) operating revenue.

Grant Revenue—We recognize grant revenue in the period in which the revenue is earned in accordance with the associated grant agreement, which is the period in which corresponding reimbursable expenses under the grant agreement are incurred. Grant revenue was generated from grants awarded by the National Institute of Health.

Operating Revenue—Operating revenue is primarily generated through funded research and development agreements derived from strategic alliances, such as our strategic partnership with Bayer. We are entitled to receive variable consideration as certain milestones are achieved. The timing of revenue recognition is not directly correlated to the timing of cash receipts.

Research and Development

Research and development expenses account for a significant portion of our operating expenses. We recognize research and development expenses as they are incurred. Research and development expenses consist of costs incurred in performing research and development activities, including:

- costs to develop and operate our platform;
- costs of discovery efforts which may lead to development candidates, including research materials and external research;
- costs for clinical development of our investigational products;
- costs for materials and supplies associated with the manufacture of active pharmaceutical ingredients investigational products for preclinical testing and clinical trials;
- personnel-related expenses, including salaries, benefits, bonuses and stock-based compensation for employees engaged in research and development functions;
- costs associated with operating our digital infrastructure; and
- other direct and allocated expenses incurred as a result of research and development activities, including those for facilities, depreciation, amortization and insurance.

We monitor research and development expenses directly associated with our clinical assets at the program level to some degree, however, indirect costs associated with clinical development and the balance of our research and development expenses are not tracked at the program or candidate level.

We recognize expenses associated with third-party contracted services as they are incurred. Upon termination of contracts with third parties, our financial obligations are generally limited to costs incurred or committed to date. Any advance payments for goods or services to be used or rendered in future research and product development activities pursuant to a contractual arrangement are classified as prepaid expenses until such goods or services are rendered.

General and Administrative

The Company expenses general and administrative costs as incurred. General and administrative expenses consist primarily of salaries; employee benefits; stock-based compensation; and outsourced labor for personnel in executive, finance, human resources, legal and other corporate administrative functions. General and administrative expenses also include legal fees for corporate and patent matters; professional fees for accounting, auditing, tax and administrative consulting services, insurance costs, facilities and depreciation expenses.

We expect that our general and administrative expenses will increase in the future to support personnel in research and development and to support our operations as we increase our research and development activities and activities related to the potential commercialization of our drug candidates. We also expect to incur increased expenses associated with operating as a public company, including costs of accounting, audit, legal, regulatory and tax-related services associated with maintaining compliance with exchange listing and SEC requirements, director and officer insurance costs and investor and public relations costs.

Other Loss, net

Other loss, net consists of interest earned on our cash and cash equivalents, interest expense incurred under our loan agreements, changes in the fair value of warrant liabilities and debt extinguishment costs.

Results of Operations

The following table summarizes the Company's results of operations:

	Three months ended September 30,		Change		Nine months ended September 30,		Change	
(in thousands, except percentages)	**2021**	**2020**	**$**	**%**	**2021**	**2020**	**$**	**%**
Revenue								
Grant revenue	$ 34	$ 163	$ (129)	(79.4)%	$ 145	$ 409	$ (264)	(64.5)%
Operating revenue	2,500	862	1,638	>100%	7,500	862	6,638	>100%
Total revenue	2,534	1,025	1,509	>100%	7,645	1,271	6,374	>100%
Operating expenses								
Research and development	33,246	16,535	16,711	>100%	86,979	42,621	44,358	>100%
General and administrative	15,690	6,964	8,726	>100%	38,481	17,684	20,798	>100%
Total operating expenses	48,936	23,499	25,437	>100%	125,460	60,305	65,156	>100%
Loss from operations	(46,402)	(22,474)	(23,928)	>100%	(117,815)	(59,034)	(58,782)	99.6 %
Other loss, net	(1,026)	(1,399)	373	(26.6)%	(3,731)	(2,206)	(1,524)	69.1 %
Net loss	$ (47,428)	$ (23,873)	$ (23,555)	98.7 %	$ (121,546)	$ (61,240)	$ (60,306)	98.5 %

Revenue

The following table summarizes Recursion's components of revenue:

	Three months ended September 30,		Change		Nine months ended September 30,		Change	
(in thousands, except percentages)	**2021**	**2020**	**$**	**%**	**2021**	**2020**	**$**	**%**
Revenue								
Grant revenue	$ 34	$ 163	$ (129)	(79.4)%	$ 145	$ 409	$ (264)	(64.5)%
Operating revenue	2,500	862	1,638	>100%	7,500	862	6,638	>100%
Total revenue	$ 2,534	$ 1,025	$ 1,509	>100%	$ 7,645	$ 1,271	$ 6,374	>100%

Revenue increased by $1.5 million and $6.4 million during the three and nine months ended September 30, 2021, respectively, compared to the prior year. The increase in revenue was due to revenue recognized from our strategic partnership with Bayer entered into in August 2020.

Research and Development

The following table summarizes Recursion's components of research and development expense:

	Three months ended September 30,		Change		Nine months ended September 30,		Change	
(in thousands, except percentages)	**2021**	**2020**	**$**	**%**	**2021**	**2020**	**$**	**%**
Research and development expenses								
Platform	$ 13,212	$ 6,854	$ 6,358	92.8 %	$ 35,082	$ 18,891	$ 16,191	85.7 %
Discovery	10,302	4,656	5,646	>100%	26,888	12,088	14,800	>100%
Clinical	4,944	1,901	3,043	>100%	13,480	6,433	7,047	>100%
Stock based compensation	1,386	351	1,035	>100%	3,157	1,357	1,800	>100%
Other	3,402	2,773	629	22.7 %	8,372	3,852	4,520	>100%
Total research and development expenses	$ 33,246	$ 16,535	$ 16,711	>100%	$ 86,979	$ 42,621	$ 44,358	>100%

Significant components of research and development expense include the following allocated by development phase: Platform, which refers primarily to expenses related to screening of product candidates through hit identification; Discovery, which refers primarily to expenses related to hit identification through development of candidates; and Clinical, which refers primarily to expenses related to development of candidates and beyond.

Research and development expenses increased by $16.7 million and $44.4 million during the three and nine months ended September 30, 2021, respectively, compared to the prior year. The increase in research and development expenses was due to an increased number of experiments screened on our platform, an increased number of pre-clinical assets being validated and increased clinical costs as studies progressed.

General and Administrative Expenses

The following table summarizes Recursion's general and administrative expense:

	Three months ended September 30,		Change		Nine months ended September 30,		Change	
(in thousands, except percentages)	**2021**	**2020**	**$**	**%**	**2021**	**2020**	**$**	**%**
Total general and administrative expenses	$ 15,690	$ 6,964	$ 8,726	>100%	$ 38,481	$ 17,684	$ 20,797	>100%

General and administrative expenses increased by $8.7 million and $20.8 million during the three and nine months ended September 30, 2021, respectively, compared to the prior year. The increase in general and administrative expenses was due to the growth in size of the Company's operations including an increase in salaries and wages of $3.7 million and $10.6 million during the three and nine months ended September 30, 2021, respectively, equipment costs, human resources costs, facilities costs and other administrative costs associated with operating a growth-stage company.

Other loss, net

The following table summarizes Recursion's components of other loss, net:

(in thousands, except percentages)	Three months ended September 30, 2021	2020	Change $	Change %	Nine months ended September 30, 2021	2020	Change $	Change %
Interest expense	$ 220	$ 401	$ (181)	(45.2)%	$ 2,971	$ 1,129	$ 1,841	>100%
Interest income	(50)	(46)	(4)	8.9 %	(94)	(290)	196	(67.5)%
Loss on debt extinguishment	827	883	(56)	(6.3)%	827	883	(56)	(6.3)%
Derivative fair value adjustment	—	161	(161)	(100.0)%	—	484	(484)	(100.0)%
Other	29	—	29	n/m	27	—	27	n/m
Other loss, net	$ 1,026	$ 1,399	$ (373)	(26.7)%	$ 3,731	$ 2,206	$ 1,524	69.1 %

n/m = Not meaningful

Other loss, net decreased by $373 thousand during the three months ended September 30, 2021 compared to the prior year. The decrease in Other loss, net during the three months ended September 30, 2021 was due to the fair value adjustment on the derivative liability for the convertible notes during the three months ended September 30, 2020 and a decrease in interest expense due to the payment in July 2021 of the balance due on the Midcap loan. See Note 7, "Notes Payable" to the Condensed Consolidated Financial Statements for additional details on the Midcap loan payment and the derivative.

Other loss, net increased by $1.5 million during the nine months ended September 30, 2021 compared to the prior year. The increase in Other loss, net during the nine months ended September 30, 2021 was primarily due to an increase in the fair value of the Series A and B warrants. See Note 12, "Stock-Based Compensation" to the Condensed Consolidated Financial Statements for additional details on the warrants. This increase was partially offset by the fair value adjustment on the derivative liability for the convertible notes. See Note 7, "Notes Payable" to the Condensed Consolidated Financial Statements for additional details on the derivative.

Liquidity and Capital Resources

Sources of Liquidity

The Company has not yet commercialized any products and does not expect to generate revenue from the sales of any product candidates for at least several years. Cash and cash equivalents totaled $394.7 million as of September 30, 2021 and $262.1 million as of December 31, 2020.

The Company has incurred operating losses and experienced negative operating cash flows and we anticipate that the Company will continue to incur losses for at least the foreseeable future. Our net loss was $47.4 million and $121.5 million during the three and nine months ended September 30, 2021, respectively. The Company's net loss was $23.9 million and $61.2 million during the three and nine months ended September 30, 2020, respectively. As of September 30, 2021 and December 31, 2020, Recursion had an accumulated deficit of $335.1 million and $213.6 million, respectively.

Recursion has financed its operations through the private placements of preferred stock and an IPO. As of September 30, 2021, the Company had received proceeds of $448.9 million from the sale of its preferred stock. The Company received net proceeds of $462.4 million from the IPO. See Note 10, "Common Stock" to the Condensed Consolidated Financial Statements for additional details on the IPO.

In October 2020, the Company received a $30.0 million upfront payment from the Company's strategic partnership with Bayer.

Midcap Credit and Security Agreement

In September 2019, the Company entered into a Credit and Security Agreement with Midcap Financial Trust (Midcap) and the other lenders party thereto (the Midcap loan agreement). The Midcap loan agreement provided for a term loan facility that included an initial tranche of $11.9 million. In July 2021, the Company paid the balance due on the loan outstanding with Midcap. See Note 7, “Notes Payable” to the Condensed Consolidated Financial Statements for additional details.

Cash Flows

The following table is a summary of the Condensed Consolidated Statements of Cash Flows for each of the periods presented below:

	Nine months ended September 30,	
(in thousands)	**2021**	**2020**
Cash used in operating activities	$ (97,456)	$ (53,972)
Cash used in investing activities	(219,501)	(4,149)
Cash provided by financing activities	454,744	236,100
Net increase (decrease) in cash and cash equivalents	$ 137,787	$ 177,979

Operating Activities

Cash used in operating activities was $97.5 million during the nine months ended September 30, 2021. Cash used in operating activities increased from the nine months ended September 30, 2020 as a result of higher costs incurred for research and development and general and administrative due to the Company’s growth.

Cash used in operating activities was $54.0 million during the nine months ended September 30, 2020. Cash used in operating activities increased from the nine months ended September 30, 2019 due to higher costs incurred for research and development and general and administrative due to the Company’s growth.

Investing Activities

Cash used in investing activities was $219.5 million during the nine months ended September 30, 2021. Cash used in investing activities primarily consisted of investment purchases of $184.2 million and property and equipment purchases of $35.3 million, which included $17.9 million for the purchase of a Dell EMC supercomputer.

Cash used in investing activities was $4.1 million during the nine months ended September 30, 2020. Cash used in investing activities included $2.6 million for the Acquisition of Vium, Inc (Vium) and $2.1 million of capital expenditures primarily for the purchase of lab equipment and leasehold improvements. The cash outflows were partially offset by the proceeds from the note receivable. See Note 3, “Acquisitions” to the Condensed Consolidated Financial Statements for additional details on the Vium acquisition.

Financing Activities

Cash provided by financing activities was $454.7 million during the nine months ended September 30, 2021. Cash provided by financing activities primarily included $462.4 million of net proceeds from the IPO. Financing cash flows also included an outflow of $12.7 million for the repayment of long-term debt on the Midcap loan.

Cash provided by financing activities was $236.1 million during the nine months ended September 30, 2020, which consisted primarily of proceeds from the sale of preferred stock of $229.5 million. Financing cash flows also included $6.4 million of proceeds from the issuance of convertible notes. See Note 7, “Notes Payable” to the Condensed Consolidated Financial Statements for additional detail on the convertible notes.

Critical Accounting Estimates and Policies

A summary of the Company’s significant accounting estimates and policies is included in Note 2, “Summary of Significant Accounting Policies” in our Final Prospectus filed with the SEC on April 16, 2021 in connection with our

IPO. There were no significant changes in the Company's application of its critical accounting policies during the nine months ended September 30, 2021.

Recently Issued and Adopted Accounting Pronouncements

Refer to Note 2 in Item 1 of this Quarterly Report on Form 10-Q for information regarding recently issued and adopted accounting pronouncements.

Emerging Growth Company

The Company is an emerging growth company (EGC), as defined by the Jumpstart Our Business Startups Act of 2012 (the JOBS Act). The JOBS Act, amount other things, exempts EGCs from being required to comply with new or revised financial accounting standards until private companies are required to comply. Recursion as elected to use the extended transition period for new or revised financial accounting standards during the period in which we remain an EGC. However, the Company may adopt certain new or revised accounting standards early. This may make comparisons of the Company's financial statements with other public companies difficult because of the potential differences in accounting standards used.

Recursion may remain an EGC until the earlier of (1) December 31, 2026; (2) December 31 of the year in which we (a) become a "large accelerated filer;" or (b) have annual gross revenues of $1.07 billion or more; or (3) the date on which we have issued more than $1.0 billion of non-convertible debt over a three-year period.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Interest Rate Risk

As of September 30, 2021, Recursion had an investment portfolio with a fair value of $405.9 million which included cash, cash equivalents and available-for-sale investments. See Note 5, "Investments" to the Condensed Consolidated Financial Statements for additional details on the portfolio. Recursion's investment portfolio is subject to interest rate risk and will fall in value if market interest rates increase. The Company does not believe it is materially exposed to changes in interest rates related to the investments and Recursion does not currently use interest rate derivative instruments to manage exposure to interest rate changes of the investments. A hypothetical 100 basis point increase in interest rates relative to interest rates as of September 30, 2021, would have resulted in a reduction in fair value of approximately $5.7 million of the investment portfolio. In addition, a hypothetical 100 basis point decrease in interest rates as of September 30, 2021 would have an insignificant effect on net loss in the ensuing year.

Item 4. Controls and Procedures.

The Company has established disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act) designed to ensure that information required to be disclosed in the reports that the Company files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and is accumulated and communicated to management, including the principal executive officer (our Chief Executive Officer) and principal financial officer (our Chief Financial Officer), to allow timely decisions regarding required disclosure. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Evaluation of Disclosure Controls and Procedures

Our management has evaluated, with the participation of our Chief Executive Officer and Chief Financial Officer, the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Quarterly Report on Form 10-Q. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives as management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Our disclosure controls and procedures have been designed to provide reasonable assurance of achieving their objectives. Based on that evaluation, our Chief

Executive Officer and Chief Financial Officer have concluded that, as of September 30, 2021, our disclosure controls and procedures were effective.

Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended September 30, 2021 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

As a result of the COVID-19 pandemic, many of the Company's employees are working remotely. We have not identified any material changes in our internal control over financial reporting as a result of these changes to the working environment, in part because our internal control over financial reporting was designed to operate in a remote working environment. The Company is continually monitoring and assessing the COVID-19 situation to determine any potential impacts on the design and operating effectiveness of our internal controls over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings.

We are not currently a party to any material litigation or other material legal proceedings. We may, from time to time, become involved in various legal proceedings arising in the normal course of business. An unfavorable resolution of any such matter could materially affect our future financial position, results of operations or cash flows.

Item 1A. Risk Factors.

RISK FACTORS

You should carefully consider the risks and uncertainties described below, together with all of the other information contained in this Quarterly Report on Form 10-Q and our other public filings with the SEC, before making investment decisions regarding Recursion common stock. The risks described below are not the only risks facing our company. The occurrence of any of the following risks, or of additional risks and uncertainties not presently known to us or that we currently believe to be immaterial, could cause our business, prospects, operating results, and financial condition to be materially and adversely affected.

RISKS RELATED TO OUR LIMITED OPERATING HISTORY, FINANCIAL POSITION, AND NEED FOR ADDITIONAL CAPITAL

We are a clinical-stage biotechnology company with a limited operating history and no products approved by regulators for commercial sale, which may make it difficult to evaluate our current and future business prospects.

Since our inception in November 2013, we have focused substantially all of our efforts and financial resources on building our drug discovery platform and developing our initial drug candidates. All of our drug candidates are still in the discovery, preclinical development, or clinical stages. Before we can commercialize our drug candidates, they require, among other steps, clinical success; development of internal or external manufacturing capacity and marketing expertise; and regulatory approval by the U.S. Food and Drug Administration (FDA) and other applicable jurisdictions. We have no products approved for commercial sale and we can provide no assurance that we will obtain regulatory approvals to market and sell any drug products in the future. We therefore have never generated any revenue from drug product sales, and we do not expect to generate any revenue from drug product sales in the foreseeable future. Until we successfully develop and commercialize drug candidates, which may never occur, we expect to finance our operations through a combination of equity offerings, debt financings, and strategic collaborations or similar arrangements. Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. For these and other reasons discussed elsewhere in this Risk Factors section, it may be difficult to evaluate our current business and our future prospects.

We have incurred significant operating losses since our inception and anticipate that we will incur continued losses for the foreseeable future.

We have incurred net losses in each year since our inception. Our net losses were $47.4 million and $23.9 million for the three months ended September 30, 2021 and 2020, respectively, and $121.5 million and $61.2 million for the nine months ended September 30, 2021 and 2020, respectively. We had an accumulated deficit of $335.1 million as of September 30, 2021. Substantially all of our operating losses have resulted from costs incurred in connection with research and development efforts, including clinical studies, and from general and administrative costs associated with our operations. We expect our operating expenses to significantly increase as we continue to invest in research and development efforts and the commencement and continuation of clinical trials of our existing and future drug candidates. We also continue to incur additional costs associated with operating as a public company. As a result, we expect to continue to incur substantial and increasing operating losses for the foreseeable future.

Our prior losses, combined with expected future losses, have had, and will continue to have, an adverse effect on our stockholders' deficit and working capital. Because of the numerous risks and uncertainties associated with developing pharmaceutical products and new technologies, we are unable to predict the extent of any future losses or when we will become profitable, if at all. Even if we do become profitable, we may not be able to sustain or increase our profitability on a quarterly or annual basis.

We will need to raise substantial additional funding. If we are unable to raise capital when needed, we would be forced to delay, reduce, or eliminate at least some of our product development programs, business development plans, strategic investments, and potential commercialization efforts, and to possibly cease operations.

Our mission to decode biology and deliver new drugs to the patients who need them is broad, expensive to achieve, and will require substantial additional capital in the future. We have four clinical stage programs and 52 additional programs in various stages of preclinical development. We expect our expenses to increase in connection with our ongoing activities as we continue the research and development of, initiate clinical trials of, and potentially seek marketing approval for, our current drug candidates, and as we add to our pipeline what we believe will be an accelerating number of additional programs. Preclinical and clinical testing is expensive and can take many years, so we will need supplemental funding to complete these undertakings. If our drug candidates are eventually approved by regulators, we will require significant additional funding in order to launch and commercialize our products.

Our future capital requirements will depend on, and could increase significantly as a result of, many factors, including:

- the number of drug candidates that we pursue and their development requirements;
- the scope, progress, results, and costs of our current and future preclinical and clinical trials;
- the costs, timing, and outcome of regulatory review of our drug candidates;
- if we obtain marketing approval for any current or future drug candidates, expenses related to product sales, marketing, manufacturing, and distribution;
- our ability to establish and maintain collaborations, licensing, and other strategic arrangements on favorable terms, and the success of such collaborations, licensing, and strategic arrangements;
- the impact of any business interruptions to our operations or to the operations of our manufacturers, suppliers, or other vendors, including the timing and enrollment of participants in our planned clinical trials, resulting from the COVID-19 pandemic or other force majeure event;
- the extent to which we acquire or invest in businesses, products, and technologies;
- the costs of preparing, filing, and prosecuting patent and other applications covering our intellectual property; maintaining, protecting, and enforcing our intellectual property rights; and defending intellectual property-related claims of third parties;
- our headcount growth and associated costs as we expand our business operations and our research and development activities, including into new geographies; and
- the costs of operating as a public company.

We historically have financed our operations primarily through private placements of our convertible preferred stock and, more recently, through the net proceeds from our initial public offering completed on April 20, 2021. As of September 30, 2021, we had cash and cash equivalents of $394.7 million. We expect that our existing cash position and short-term investments as of the date of this Quarterly Report on Form 10-Q will be sufficient to fund our operating expenses and capital expenditures for at least the next 12 months. However, identifying potential drug candidates and conducting preclinical development testing and clinical trials is a time-consuming and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve product sales. In addition, our drug candidates, even if approved, may not achieve commercial success. We do not anticipate that our commercial revenues, if any, will be derived from

sales of products for at least several years. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives, and we may need to raise substantial additional funds sooner than expected.

Until such time, if ever, as we can generate substantial revenues, we expect to finance our cash needs potentially through a combination of private and public equity offerings and debt financings, as well as strategic collaborations, partnerships, and licensing arrangements. We do not have any committed external source of funds other than amounts payable by Takeda Pharmaceutical Company Limited (Takeda) and by Bayer AG (Bayer) under collaboration agreements. Disruptions in the financial markets in general, and more recently due to the COVID-19 pandemic and U.S. debt ceiling and budget deficit concerns, may make equity and debt financing more difficult to obtain. We cannot be certain that future financing will be available in sufficient amounts or on terms acceptable to us, if at all. If we are unable to raise additional funds through equity or debt financings, or strategic collaborations or similar arrangements, on a timely basis and satisfactory terms, we may be required to significantly curtail, delay, or discontinue one or more of our research and development programs or the future commercialization of any drug candidate, or we may be unable to expand our operations or otherwise capitalize on our business opportunities as desired. Any of these circumstances could materially and adversely affect our business and results of operations and may cause us to cease operations.

Raising additional capital may cause dilution to our stockholders, restrict our operations, require us to relinquish rights to our technologies or drug candidates, and divert management's attention from our core business.

The terms of any financing we obtain may adversely affect the holdings or rights of our stockholders, and the issuance of additional securities, whether equity or debt, or the possibility of such issuance, may cause the market price of our shares to decline. To the extent that we raise additional capital through the sale of Class A common stock or securities convertible or exchangeable into Class A common stock, our stockholders' ownership interests will be diluted. Moreover, the terms of those securities may include liquidation or other preferences that materially and adversely affect our stockholders' rights as a common stockholder. Debt financing, if available, would result in increased fixed payment obligations. In addition, we may be required to agree to certain restrictive covenants, such as limitations on our ability to incur additional debt, which could adversely impact our ability to make capital expenditures, declare dividends, or otherwise conduct our business. We also may need to raise funds through additional strategic collaborations, partnerships, or licensing arrangements with third parties at an earlier stage than would be desirable. Such arrangements could require us to relinquish rights to some of our technologies or drug candidates, future revenue streams, or research programs, or otherwise agree to terms unfavorable to us. Fundraising efforts have the potential to divert our management's attention from our core business or create competing priorities, which may adversely affect our ability to develop and commercialize our drug candidates and technologies.

We are engaged in strategic collaborations and we intend to seek to establish additional collaborations, including for the clinical development or commercialization of our drug candidates. If we are unable to establish collaborations on commercially reasonable terms or at all, or if current and future collaborations are not successful, we may have to alter our development and commercialization plans.

Our product development programs and the potential commercialization of our drug candidates will require substantial additional cash to fund expenses. To date our operating revenue has primarily been generated through funded research and development agreements with Takeda and Bayer. For example, in August 2020, we entered into a Research Collaboration and Option Agreement with Bayer (the Bayer Agreement) for discovery of small molecule drug candidates with the potential to treat fibrotic diseases, and we received a non-refundable upfront payment of $30.0 million that is recognized over time. We intend to seek additional strategic collaborations, partnerships, and licensing arrangements with pharmaceutical and biotechnology companies, including for the development and potential commercialization of one or more drug candidates. In the near term, the value of our company will depend in part on the number and quality of the collaborations and similar arrangements that we create. Whether we reach a definitive agreement for a collaboration will depend, among other things, on our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration, and the potential collaborator's evaluation of a number of factors. Those factors may include, among others, (i) our technologies and capabilities; (ii) our intellectual property position with respect to

the subject drug candidate; (iii) the design or results of clinical trials; (iv) the likelihood of approval by the FDA and similar regulatory authorities outside the U.S.; (v) the potential market for the subject drug candidate; (vi) potential competing products; and (vii) industry and market conditions generally. In addition, the significant number of recent business combinations among large pharmaceutical companies has resulted in a reduced number of potential future collaborators.

Collaborations and similar arrangements are complex and time-consuming to negotiate and document. We may have to relinquish valuable rights to our product candidates, intellectual property, or future revenue streams, or grant licenses on terms that are not favorable to us or in instances where it would have been more advantageous for us to retain sole development and commercialization rights. We may be restricted under collaboration agreements from entering into future agreements on certain terms with other potential collaborators. In addition, management of our relationships with collaborators will require (i) significant time and effort from our management team; (ii) coordination of our marketing and research and development programs with the marketing and research and development priorities of our collaborators; and (iii) effective allocation of our resources to multiple projects.

Collaborations and similar arrangements may never result in the successful development or commercialization of drug candidates or the generation of sales revenue. The success of these arrangements will depend heavily on the efforts and activities of our collaborators. Collaborators generally have significant discretion in determining the efforts and resources that they will apply to these collaborations, and they may not pursue or prioritize the development and commercialization of partnered drug candidates in a manner that is in our best interests. Product revenues arising from collaborations are likely to be lower than if we directly marketed and sold products. Disagreements with collaborators regarding clinical development or commercialization matters can lead to delays in the development process or commercialization of the applicable drug candidate and, in some cases, the termination of the collaboration arrangement. These disagreements can be difficult to resolve if neither of the parties has final decision-making authority. Collaborations with pharmaceutical or biotechnology companies or other third parties often are terminated or allowed to expire by the other party. Any such termination or expiration would adversely affect us financially and could harm our business reputation. If we were to become involved in arbitration or litigation with any of our collaborators, it would consume time and divert management resources away from operations, damage our reputation, and impact our ability to enter into future collaboration agreements, and may further result in substantial payments from us to our collaborators to settle any disputes.

We may not be able to establish additional strategic collaborations and similar arrangements on a timely basis, on acceptable terms, or at all, and to maintain and successfully conclude them. Collaborative relationships with third parties could cause us to expend significant resources and incur substantial business risk with no assurance of financial return. If we are unable to establish or maintain strategic collaborations and similar arrangements on terms favorable to us and realize the intended benefits, our research and development efforts and potential to generate revenue may be limited and our business and operating results could be materially and adversely impacted.

We have no products approved for commercial sale and have not generated any revenue from product sales. We or our current and future collaborators may never successfully develop and commercialize our drug candidates, which would negatively affect our results of operation and our ability to continue our business operations.

Our ability to become profitable depends upon our ability to generate substantial revenue in an amount necessary to offset our expenses. To date, we have not generated any revenue from our drug candidates or technologies, other than limited grant revenues, as well as payments under collaboration agreements, including the Bayer agreement. We expect to continue to derive most of our revenue in the near future from collaboration relationships. We do not expect to generate significant revenue unless and until we progress our drug candidates through clinical trials and obtain marketing approval of, and begin to sell, one or more of our drug candidates, or we otherwise receive substantial licensing or other payments under our collaborations. Even if we obtain market approval for our drug candidates, one or more of them may not achieve commercial success.

Commercialization of our drug candidates depends on a number of factors, including but not limited to our ability to:

- successfully complete preclinical studies;
- obtain approval of Investigational New Drug (IND) applications by the FDA and similar regulatory approvals outside the U.S., allowing us to commence clinical trials;
- successfully enroll subjects in, and complete, clinical trials;
- receive regulatory approvals from applicable regulatory authorities;
- establish commercial manufacturing capabilities or make arrangements with third-party manufacturers for clinical supply and commercial manufacturing;
- obtain patent and trade secret protection or regulatory exclusivity for our drug candidates, and maintain, protect, defend, and enforce such intellectual property rights;
- launch commercial sales of our drug products, whether alone or in collaboration with other parties;
- obtain and maintain acceptance of our drug products by patients, the medical community, and third-party payors, and effectively compete with other therapies;
- obtain and maintain coverage of and adequate reimbursement for our drug products, if and when approved, by medical insurance providers; and
- demonstrate a continued acceptable safety profile of drug products following marketing 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 drug candidates, which would materially harm our business.

Our current or future collaborators would similarly need to be effective in the above activities as they pertain to the collaborators in order to successfully develop drug candidates. We and they may never succeed in developing and commercializing drug candidates. And even if we do, we may never generate revenues that are significant enough to achieve profitability; or even if our collaborators do, we may not receive option fees, milestone payments, or royalties from them that are significant enough for us to achieve profitability. Even if we achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would eventually depress the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, develop a pipeline of drug candidates, enter into collaborations, or even continue our operations.

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

The amount of our future losses, and when we might achieve profitability, is uncertain, and our quarterly and annual operating results may fluctuate significantly for various reasons, including the following:

- the timing of, and our levels of investment in, research and development activities relating to our drug candidates;
- the timing of, and status of staffing and enrollment for, clinical trials;
- the results of clinical trials for our drug candidates, including whether there are any unexpected health or safety concerns with our drug candidates and whether we receive marketing approval for them;
- commercialization of competing drug candidates or any other change in the competitive landscape of our industry, including consolidation among our competitors or partners;
- the timing and cost of manufacturing our drug candidates;

- additions and departures of key personnel;
- the level of demand for our drug candidates should they receive approval, which may vary significantly; and
- changes in the regulatory environment or market or general economic conditions.

The occurrence of one or more of these or other factors could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. This variability and unpredictability could also result in our failing to meet any forecasts we provide to the market, or the expectations of industry or financial analysts or investors, for any period. If one or more of these events occur, the price of our Class A common stock could decline substantially.

If we engage in future acquisitions or strategic partnerships, this may increase our capital requirements, dilute our stockholders' equity, cause us to incur debt or assume contingent liabilities, and subject us to other risks.

We may engage in acquisitions and strategic partnerships in the future, including by licensing or acquiring complementary products, intellectual property rights, technologies, or businesses. Any acquisition or strategic partnership may entail numerous risks, including:

- increased operating expenses and cash requirements;
- the assumption of indebtedness or contingent liabilities;
- the issuance of our equity securities, which would result in dilution to our stockholders' equity;
- difficulties in assimilating operations, intellectual property, products, and drug candidates of an acquired company, and with integrating new personnel;
- the diversion of our management's attention from our existing product programs and initiatives, even if we are unable to complete such proposed transaction;
- our ability to retain key employees and maintain key business relationships;
- uncertainties associated with the other party to such a transaction, including the prospects of that party and their existing products or drug candidates and ability to obtain regulatory approvals; and
- our inability to generate revenue from acquired intellectual property, technology, and/or products sufficient to meet our objectives or even to offset the associated transaction and maintenance costs.

In addition, if we undertake such a transaction, we may assume or incur debt obligations, incur a large one-time expense, or acquire intangible assets, which could result in significant future amortization expense and adversely impact our results of operations.

RISKS RELATED TO THE DISCOVERY AND DEVELOPMENT OF DRUG CANDIDATES

Our approach to drug discovery is unique and may not lead to successful drug products for various reasons, including but not limited to challenges identifying mechanisms of action for our candidates.

We image cells and use cell morphology to understand how a diseased cell responds to drugs and if or when it appears normal. Biology is complex. If studying the shape, structure, form, and size of cells does not prove to be an accurate way to better understand diseases or does not lead to the biological insights or viable drug candidates we anticipate, our drug discovery platform may not be useful or may not lead to successful drug products, or we may have to move to a new business model, any of which could have an adverse effect on our reputation and results of operations. If the mechanism of action of a drug candidate is unknown, it may be more difficult to choose the best lead to optimize from an efficacy standpoint and to avoid potential off-target side effects that could affect safety. Such uncertainty could make it more difficult to form partnerships with larger pharmaceutical companies, as the

expenses involved in late-phase clinical trials increase the level of risk related to potential efficacy and/or safety concerns and may pose challenges to IND and/or New Drug Application (NDA) approval by the FDA or other regulatory agencies.

Our drug candidates are in preclinical or clinical development, which are lengthy and expensive processes with uncertain outcomes and the potential for substantial delays.

Our current drug candidates are in preclinical or clinical development. Before we can bring any drug candidate to market, we must, among other things, complete preclinical studies, have the candidate manufactured to appropriate specifications, conduct extensive clinical trials to demonstrate safety and efficacy in humans, and obtain marketing approval from the FDA and other appropriate regulatory authorities, which we have not yet demonstrated our ability to do. Clinical testing is expensive, difficult to design and implement, can take many years to complete, and is uncertain as to outcome. A failure of a clinical trial can occur at any stage of testing. The outcome of preclinical development testing and early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. We may accelerate development from cell models in our drug discovery platform directly to patients without validating results through animal studies or validate results in animal studies at the same time as we conduct Phase 1 clinical trials. This approach could pose additional risks to our success if the effect of certain of our drug candidates on diseases has not been tested in animals prior to testing in humans.

We currently have four clinical-stage drug candidates focused on rare, monogenic diseases, and we anticipate filing IND applications with the FDA or other regulators for Phase 2 studies for all four drug candidates. We may not be able to file such INDs, or INDs for any other drug candidates, on the timelines we expect, if at all, and any such delays could impact any additional product development timelines. Moreover, we cannot be sure that submission of an IND will result in the FDA or other regulators allowing further clinical trials to begin or that, once begun, issues will not arise that require us to suspend or terminate clinical trials. Commencing each of these clinical trials is subject to finalizing the trial design based on discussions with the FDA and other regulatory authorities. These regulatory authorities could change their guidance at any time, including their positions on the acceptability of our trial designs or the clinical endpoints or populations selected, which may require us to complete additional or longer clinical trials, or they may impose stricter approval conditions than we currently expect. Successful completion of our clinical trials is a prerequisite to submitting an NDA to the FDA, as well as a Marketing Authorization Application (MAA) to the European Medicines Agency (EMA) and the Medicines and Healthcare Products Regulatory Agency (MHRA) for each drug candidate and, consequently, to the ultimate approval and commercial marketing of each drug candidate. We do not know whether any of our future clinical trials will begin on time or be completed on schedule, if at all.

We may experience delays in completing our preclinical studies and initiating or completing clinical trials, or numerous unforeseen events during, or as a result of, any clinical trials, that could require us to incur additional costs or delay or prevent our ability to receive marketing approval or to commercialize our drug candidates, including those related to one or more of the following:

- regulators, Institutional Review Boards (IRBs), or ethics committees may not authorize us or our investigators to commence a clinical trial or to conduct a clinical trial at a prospective trial site;
- we may have difficulty 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;
- the number of participants required for clinical trials of our drug candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate, or participants may drop out of 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, fail to meet their contractual obligations to us in a timely manner or at all, deviate from the clinical trial protocol, or drop out of a trial, which may require that we add new clinical trial sites or investigators;

- the supply or quality of our drug candidates or the other materials necessary to conduct clinical trials of our drug candidates may be insufficient or inadequate;
- the occurrence of delays in the manufacturing of our drug candidates;
- reports may arise from preclinical or clinical testing of other therapies that raise safety, efficacy, or other concerns about our drug candidates; and
- clinical trials may produce inconclusive or negative results about our drug candidates, including that candidates have undesirable side effects or other unexpected characteristics, in which event, we may decide – or our investigators or regulators, IRBs, or ethics committees may require us — to suspend the trials in order to conduct additional studies or to terminate the trials.

From time to time as we move through the stages of development, we may publish interim top-line or preliminary data from our clinical trials. Interim data from clinical trials are subject to the risk that one or more of the clinical outcomes may materially change as enrollment of participants continues and more data become available. Preliminary or top-line data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, interim and preliminary data should be viewed with caution until the final data are available. Adverse differences between preliminary or interim data and final data could significantly harm our business prospects.

Our product development costs will increase if we experience delays in testing or regulatory approvals. We do not know whether any of our future clinical trials will begin as planned, or whether any of our current or future clinical trials will need to be restructured or will be completed on schedule, if at all. If we decide or are required to suspend or terminate a clinical trial, we may elect to abandon product development for that program. Significant preclinical study or clinical trial delays, including those caused by the COVID-19 pandemic, also could shorten any periods during which we may have the exclusive right to commercialize our drug candidates or could allow our competitors to bring products to market before we do and impair our ability to successfully commercialize our drug candidates. Any delays in or unfavorable outcomes from our preclinical or clinical development programs may significantly harm our business, operating results, and prospects.

If we experience delays or difficulties in the enrollment of patients in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.

We may not be able to initiate, continue, and complete clinical trials for current or future drug candidates if we are unable to locate and timely enroll a sufficient number of eligible participants in these trials as required by the FDA or similar regulatory authorities outside the United States. The process of finding potential participants may prove costly and our ability to enroll eligible participants may be limited or may result in slower enrollment than we anticipate due to a number of factors, including:

- the severity of the disease under investigation;
- the eligibility criteria for the clinical trial in question, including that participants have specific characteristics or diseases;
- the availability of an appropriate genomic screening test;
- the perceived risks and benefits of the drug candidate under study;
- difficulties in identifying, recruiting, and enrolling a sufficient number of participants to complete our clinical studies;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- the referral practices of physicians;
- whether competitors are conducting clinical trials for drug candidates that treat the same indications as ours, and the availability and efficacy of competing therapies;

- our ability to monitor participants adequately during and after the trial and to maintain participant informed consent and privacy;
- the proximity and availability of clinical trial sites for prospective participants;
- pandemics such as the COVID-19 pandemic, natural disasters, or other external events that may limit the availability of participants, principal investigators, study staff, or clinical sites; and
- the risk that enrolled participants will not complete a clinical trial.

If individuals are unwilling to participate in or complete our studies for any reason, or we experience other difficulties with enrollment or participation, the timeline for recruiting participants, conducting studies, and obtaining regulatory approval of potential products may be delayed.

Our planned clinical trials, or those of our current and potential future collaborators, may not be successful or may reveal significant adverse events not seen in our preclinical or nonclinical studies, which may result in a safety profile that could inhibit regulatory approval or market acceptance of any of our drug candidates.

Before obtaining regulatory approvals for the commercial sale of any products, we must demonstrate through preclinical studies and clinical trials that our drug candidates are both safe and effective for use in each target indication. Failure can occur at any time during the clinical trial process. The results of preclinical studies and early clinical trials of our drug candidates may not be predictive of the results of later-stage clinical trials, and initial success in clinical trials may not be indicative of results obtained when such trials are completed. There is typically an extremely high rate of attrition from the failure of drug candidates proceeding through clinical trials. Drug candidates in later stages of clinical trials also may fail to show the desired safety and efficacy profile despite having progressed through nonclinical studies and initial clinical trials. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or unacceptable safety issues, notwithstanding promising results in earlier trials. Most drug candidates that commence clinical trials are never approved as products, and there can be no assurance that any of our current or future clinical trials will ultimately be successful or support further clinical development of any of our drug candidates.

As is the case with many treatments for rare diseases and other conditions, there have been, and it is likely that in the future there may be, side effects associated with the use of our drug candidates. Moreover, if we develop drug candidates in combination with one or more disease therapies, it may be more difficult to accurately predict side effects.

If significant adverse events or other side effects are observed in any of our current or future drug candidates, we may have difficulty recruiting participants in our clinical trials, they may drop out of our trials, or we may be required to abandon the trials or our development efforts of one or more drug candidates altogether. We, the FDA or other applicable regulatory authorities, or an IRB may suspend or terminate clinical trials of a drug candidate at any time for various reasons, including a belief that subjects 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 were later found to cause side effects that prevented their further development. Even if the side effects do not preclude the product from obtaining or maintaining marketing approval, undesirable side effects may inhibit market acceptance of the approved product due to its tolerability versus other therapies. Any of these developments could materially harm our business, operating results, and prospects.

We may in the future conduct clinical trials for our drug candidates outside the United States, and the FDA and similar foreign regulatory authorities may not accept data from such trials.

We may in the future choose to conduct additional clinical trials outside the United States, including in Australia, Europe, Asia, or other jurisdictions. FDA acceptance of trial data from clinical trials conducted outside the United States may be subject to certain conditions. In cases where data from clinical trials conducted outside the United States are intended to serve as the sole basis for marketing approval in the United States, the FDA will generally

not approve the application on the basis of foreign data alone unless (i) the data are applicable to the United States population and United States medical practice; (ii) the trials are performed by clinical investigators of recognized competence; and (iii) the data may be considered valid without the need for an on-site inspection by the FDA or, if the FDA considers such an inspection to be necessary, the FDA is able to validate the data through an on-site inspection or other appropriate means. Additionally, the FDA's clinical trial requirements, including a sufficiently large size of trial populations and statistical powering, must be met. Many foreign regulatory bodies have similar approval requirements. In addition, such foreign trials would be subject to the applicable local laws of the foreign jurisdictions where the trials are conducted. There can be no assurance that the FDA or any similar foreign regulatory authority will accept data from trials conducted outside of the United States or the applicable jurisdiction. If the FDA or any similar foreign regulatory authority does not accept such data, it would result in the need for additional trials, which would be costly and time-consuming and delay aspects of our business plan, and which may result in our drug candidates not receiving approval or clearance for commercialization in the applicable jurisdiction.

Following the United Kingdom's departure from the EU (referred to as Brexit) on January 31, 2020, and the end of the "transition period" on December 31, 2020, the EU and the United Kingdom entered into a trade and cooperation agreement that governs certain aspects of their future relationship, including the assurance of tariff-free trade for certain goods and services. As the regulatory framework for pharmaceutical products in the United Kingdom relating to the quality, safety, and efficacy of pharmaceutical products; clinical trials; marketing authorization; and commercial sales and distribution of pharmaceutical products is derived from EU directives and regulations, Brexit will materially impact the future regulatory regime that applies to products and the approval of drug candidates in the United Kingdom. Longer term, the United Kingdom is likely to develop its own legislation that diverges from that in the EU.

It is difficult to establish with precision the incidence and prevalence for target patient populations of our drug candidates. If the market opportunities for our drug candidates are smaller than we estimate, or if any approval that we obtain is based on a narrower definition of the patient population, our revenue and ability to achieve profitability will be adversely affected, possibly materially.

Even if approved for commercial sale, the total addressable market for our drug candidates will ultimately depend upon, among other things, (i) the diagnosis criteria included in the final label and whether our drug candidates are approved for these indications; (ii) acceptance by the medical community; and (iii) patient access, product pricing, and reimbursement by third-party payors. The number of patients targeted by our drug candidates may turn out to be lower than expected, patients may not be amenable to treatment with our products, or new patients may become increasingly difficult to identify or gain access to, all of which would adversely affect our results of operations and our business. Due to our limited resources and access to capital or for other reasons, we must prioritize development of certain drug candidates, which may prove to be the wrong choice and may adversely affect our business.

Although we intend to explore other therapeutic opportunities in addition to the drug candidates that we are currently developing, we may fail to identify viable new drug candidates for clinical development for a number of reasons.

Research programs to pursue the development of our existing and planned drug candidates for additional indications, and to identify new drug candidates and disease targets, require substantial technical, financial, and human resources whether or not they are ultimately successful. For example, under the Bayer agreement, we are collaborating with Bayer to develop various projects related to fibrosis. There can be no assurance that we will find potential targets using this approach, that any such targets will be tractable, or that clinical validations will be successful. Our research programs may initially show promise in identifying potential indications and/or drug candidates, yet fail to yield results for clinical development for a number of reasons, including:

- the research methodology used may not be successful in identifying potential indications and/or drug candidates, including as a result of the limited patient sample represented in our databases and the validity of extrapolating based on insights from a particular cellular context that may not apply to other, more relevant cellular contexts;

- potential drug candidates may, after further study, be shown to have harmful side effects or other characteristics that indicate they are unlikely to be effective products; or
- it may take greater human and financial resources than we can allocate to identify additional therapeutic opportunities for our drug candidates or to develop suitable potential drug candidates through internal research programs, thereby limiting our ability to develop, diversify, and expand our product portfolio.

Because we have limited financial and human resources, we will have to prioritize and focus on certain research programs, drug candidates, and target indications while forgoing others. As a result, we may forgo or delay pursuit of opportunities with other drug candidates or for other indications that later prove to have greater commercial potential or a greater likelihood of success. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities.

Accordingly, there can be no assurance that we will ever be able to identify additional therapeutic opportunities for our drug candidates or to develop suitable potential drug candidates through internal research programs, which could materially adversely affect our future growth and prospects.

If we are unable to obtain or there are delays in obtaining required regulatory approvals for our drug candidates in the U.S. or other jurisdictions, or if approval is subject to limitations, we will be unable to commercialize, or will be delayed or limited in commercializing, the drug candidates in such jurisdiction and our ability to generate revenue may be materially impaired.

Our drug candidates and the activities associated with their development and commercialization — including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale, distribution, import, and export — are subject to comprehensive regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in other countries. Before we can commercialize any of our drug candidates, we must obtain marketing approval. Currently, all of our drug candidates are in development and we have not received approval to market any of our drug candidates from regulatory authorities in any jurisdiction. It is possible that our current and future drug candidates will never obtain regulatory approval.

We have only limited experience in filing and supporting applications to regulatory authorities and expect to rely on CROs and/or regulatory consultants to assist us in this process. Securing regulatory approval requires the submission of extensive preclinical and clinical data and supporting information to the various regulatory authorities for each therapeutic indication to establish the drug candidate's safety and efficacy. It also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the relevant regulatory authority. Given our novel approach to drug discovery that uses our platform to generate data, regulatory authorities may not approve any of our drug candidates derived from our platform or they may elect to inspect our platform.

The process of obtaining regulatory approvals, both in the United States and abroad, is expensive and often takes many years. If the FDA or a comparable foreign regulatory authority requires that we perform additional preclinical or clinical trials, approval, if obtained at all, may be delayed. The length of such a delay may vary substantially based upon a variety of factors, including the type, complexity, and novelty of the drug candidates involved. Delays in the approval or rejection of an application may also be caused by (i) changes in marketing approval policies during the development period; (ii) changes in or the enactment of additional statutes or regulations; or (iii) changes in regulatory review for each submitted NDA, 510(k), Premarket Approval Application, or equivalent application types. The FDA and comparable authorities in other countries have substantial discretion in the approval process and may refuse to accept any application, or they may decide that our data are insufficient for approval and require additional preclinical, clinical, or other studies. Our drug candidates could be delayed in receiving, or fail to receive, regulatory approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may not be able to enroll a sufficient number of patients in our clinical studies;

- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a drug candidate is safe and effective for its proposed indication or that a related companion diagnostic is suitable to identify appropriate patient populations;
- a drug candidate may be only moderately effective or may have undesirable or unintended side effects, toxicities, or other characteristics;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that a drug candidate's clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of our drug candidates may not be sufficient or of sufficient quality to support the submission of an NDA or other submission or to obtain regulatory approval in the United States or elsewhere;
- the FDA or comparable foreign regulatory authorities may find deficiencies with, or fail to approve, our manufacturing processes or facilities, or those of third-party manufacturers with which we contract, for clinical and commercial supplies; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change such that our clinical or manufacturing data are insufficient for approval.

Even if we obtain approval, regulatory authorities may approve any of our drug candidates for fewer or more limited indications than we request, thereby narrowing the commercial potential of the drug candidate. In addition, regulatory authorities may grant approval contingent on the performance of costly post-marketing clinical trials or may approve a drug candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that drug candidate.

If are unable to obtain or experience delays in obtaining approval of our current and future drug candidates in the U.S. or other jurisdictions, or if approval is subject to limitations, the commercial prospects for the drug candidates may be harmed, and our reputation and ability to generate revenues may be materially impaired.

We may never realize a return on our investment of resources and cash in our drug discovery collaborations.

We conduct drug discovery activities for or with collaborators who are also engaged in drug discovery and development, which include pre-commercial biotechnology companies and large pharmaceutical companies. Under these collaborations, we typically provide the benefit of our drug discovery platform and platform experts who identify molecules that have activity against one or more specified targets, among other resources. In consideration, we have received, and expect to receive in the future, (i) equity investments; (ii) upfront fees; and/or (iii) the right to receive option fees, cash milestone payments upon the achievement of specified development, regulatory, or commercial sales milestones for the drug discovery targets, and potential royalties. Our ability to receive fees and payments and realize returns from our drug discovery collaborations in a timely manner, or at all, is subject to a number of risks, including but not limited to the following:

- our collaborators may incur unanticipated costs or experience delays in completing, or may be unable to complete, the development and commercialization of any drug candidates;
- collaborators have significant discretion in determining the amount and timing of efforts and resources that they will apply to our collaborations and may not perform their obligations as expected;
- collaborators may decide not to pursue development or commercialization of drug candidates for various reasons, including results of clinical trials or other studies, changes in the collaborator's strategic focus or available funding, their desire to develop products that compete directly or indirectly with our drug candidates, or external factors (such as an acquisition or industry slowdown) that divert resources or create competing priorities;

- existing collaborators and potential future collaborators may begin to perceive us to be a competitor more generally, particularly as we advance our internal drug discovery programs, and therefore may be unwilling to continue existing collaborations, or enter into new collaborations, with us;
- a collaborator may fail to comply with applicable regulatory requirements regarding the development, manufacture, distribution, or marketing of a drug candidate or product;
- disagreements with collaborators, including disagreements over intellectual property or proprietary rights, contract interpretation, or the preferred course of development, might cause delays or terminations of the research, development, or commercialization of drug candidates, or might result in litigation or arbitration;
- collaborators may not properly obtain, maintain, enforce, defend, or protect our intellectual property or proprietary rights, or they may use our proprietary information in such a way as to potentially lead to disputes or legal proceedings that could jeopardize or invalidate our or their intellectual property or proprietary rights;
- collaborators may infringe, misappropriate, or otherwise violate the intellectual property or proprietary rights of third parties, which may expose us to litigation and potential liability; and
- drug discovery collaborations may be terminated prior to our receipt of any significant value.

In addition, we may be over-reliant on our partners to provide information for molecules that we in-license, or such molecules may not be well-protected because the composition of matter patents that once protected them have expired. Moreover, we may have difficulty obtaining the quality and quantity of active pharmaceutical ingredients (API) for use in drug candidates, or we may be unable to ensure the stability of the molecule, all of which is needed to conduct clinical trials or bring a drug candidate to market. For those molecules that we are attempting to repurpose for other indications, our partners may not have sufficient data, may have poor quality data, or may not be able to help us interpret data, any of which could cause our collaboration to fail.

If any drug discovery collaborations that we enter into do not result in the successful development and commercialization of drug products that result in option fees, milestone payments, royalties, or other payments to us, we may not receive an adequate return on the resources we have invested in such collaborations, which would have an adverse effect on our business and results of operations. Further, we may not have access to, or may be restricted from disclosing, certain information regarding our collaborators' drug candidates being developed or commercialized and, consequently, may have limited ability to inform our stockholders about the status of, and likelihood of achieving, milestone payments or royalties under such collaborations.

We face substantial competition, which may result in others discovering, developing, or commercializing products before, or more successfully than, we do.

The development and commercialization of new products in the biopharmaceutical and related industries is highly competitive. There are other companies focusing on technology-enabled drug discovery to identify and develop new chemical entities that have not previously been investigated in clinical trials (NCEs) and/or known chemical entities that have been previously investigated (KCEs). Some of these competitive companies are employing scientific approaches that are the same as or similar to our approach, and others are using entirely different approaches. These companies include large pharmaceutical companies, specialty pharmaceutical companies, and biotechnology companies of various sizes worldwide. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large, established companies. Potential competitors also include academic institutions, government agencies, and other public and private research organizations. Many of the companies that we compete against, or which we may compete against in the future, have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals, and marketing approved products than we do. They may also compete with us in recruiting and retaining qualified scientific and management personnel, in establishing clinical trial sites and patient recruitment for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Within the field of tech-enabled drug discovery, we believe that our approach utilizing a combination of wet-lab biology to generate our proprietary dataset, and the *in silico* tools in our closed-loop system, sets us apart and affords us a competitive advantage in initiating and advancing drug development programs. We further believe that the principal competitive factors to our business include (i) the accuracy of our computations and predictions; (ii) the ability to integrate experimental and computational capabilities; (iii) the ability to successfully transition research programs into clinical development; (iv) the ability to raise capital; and (v) the scalability of our platform, pipeline, and business.

Any drug candidates that we successfully develop and commercialize will compete with currently-approved therapies, and new therapies that may become available in the future, from segments of the pharmaceutical, biotechnology, and other related industries. The key competitive factors affecting the success of all of our drug candidates, if approved, are likely to be (i) their efficacy, safety, convenience, and price; (ii) the level of non-generic and generic competition; and (iii) the availability and amount of reimbursement from government healthcare programs, commercial insurance plans, and other third-party payors. Our commercial opportunity could be reduced or eliminated if competing products are more effective, have fewer or less severe side effects, are more convenient, or are less expensive than products that we or our collaborators may develop, or if competitors obtain FDA or other regulatory approval more rapidly than us and are able to establish a strong market position before we or our collaborators are able to enter the market.

If our proprietary tools and technology and other competitive advantages do not remain in place and evolve appropriately as barriers to entry in the future, or if we and our collaboration partners are not otherwise able to effectively compete against existing and potential competitors, our business and results of operations may be materially and adversely affected.

Because we have multiple programs and drug candidates in our development pipeline and are pursuing a variety of target indications and treatment modalities, we may expend our limited resources to pursue a particular drug candidate and fail to capitalize on development opportunities or drug candidates that may be more profitable or for which there is a greater likelihood of success.

We currently focus on the development of drug candidates regardless of the treatment modality or the particular target indication. Because we have limited financial and personnel resources, we may forgo or delay pursuit of opportunities with potential target indications or drug candidates that later prove to have greater commercial potential than our current and planned development programs and drug candidates. 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 other future drug candidates for specific indications may not yield any commercially viable future drug candidates.

We and our collaborators may not achieve projected discovery and development milestones and other anticipated key events in the time frames that we or they announce, which could have an adverse impact on our business and could cause our stock price to decline.

From time to time we have made, and in the future are likely to make, public statements regarding the expected timing of certain milestones and key events, such as the commencement and completion of preclinical and clinical studies in our internal drug discovery programs as well as developments and milestones under our collaborations. Our collaborators, such as Bayer, have also made public statements regarding expectations for the development of programs under collaborations with us and may in the future make additional statements about their goals and expectations for collaborations with us. The actual timing of these events can vary dramatically due to a number of factors, such as (i) delays or failures in our or our current and future collaborators' drug discovery and development programs; (ii) the amount of time, effort, and resources committed by us and our current and future collaborators; and (iii) the numerous uncertainties inherent in the development of drugs. As a result, there can be no assurance that our or our current and future collaborators' programs will advance or be completed in the time frames we or they announce or expect. If we or any collaborators fail to achieve one or more of these milestones or other key events as planned, our business and reputation could be materially adversely affected.

RISKS RELATED TO OUR PLATFORM AND DATA

We have invested, and expect to continue to invest, in research and development efforts to further enhance our drug discovery platform, which is central to our mission. If the return on these investments is lower or develops more slowly than we expect, our business and operating results may suffer.

Our drug discovery platform is central to our mission to decode biology by integrating technological innovations across biology, chemistry, automation, data science, and engineering. The platform includes the Recursion Operating System, which combines an advanced infrastructure layer to generate proprietary biological and chemical datasets, and the Recursion Map, a suite of custom software, algorithms, and machine learning tools. Our platform depends upon the continuous, effective, and reliable operation of our software, hardware, databases, and related tools and functions, as well as the integrity of our data. Our ability to develop drug candidates and increase revenue depends in large part on our ability to enhance and improve our platform. The success of any enhancement depends on several factors, including (i) innovation in hardware solutions; (ii) increased computational storage and processing capacity; (iii) development of more advanced algorithms; and (iv) generation of additional biological and chemical data, such as that necessary to our ability to identify important and emerging use cases and quickly develop new and effective innovations to address those use cases.

We have invested, and expect to continue to invest, in research and development efforts that further enhance our platform. These investments may involve significant time, risks, and uncertainties, including the risks that any new software or hardware enhancement may not be introduced in a timely or cost-effective manner; may not keep pace with technological developments; or may not achieve the functionality necessary to generate significant revenues.

Our proprietary software tools, hardware, and data sets are inherently complex. We have from time to time found defects, vulnerabilities, or other errors in our software and hardware that produce the data sets we use to discover new drug candidates, and new errors with our software and hardware may be detected in the future. The risk of errors is particularly significant when new software or hardware is first introduced or when new versions or enhancements of existing software or hardware are implemented. Errors may also result from the interface of our proprietary software and hardware tools with our data or with third-party systems and data.

If we are unable to successfully enhance our drug discovery platform, or if there are any defects or disruptions in our platform that are not timely resolved, our ability to develop new innovations and ultimately gain market acceptance of our products and discoveries could be materially and adversely impacted, and our reputation, business, and operating results could be materially harmed.

Our information technology systems and infrastructure may fail or experience security breaches that could adversely impact our business and operations and subject us to liability.

We have experienced significant growth in the complexity of our data and the software tools that our hardware infrastructure supports. We rely significantly upon information technology systems and infrastructure owned and maintained by us or by third party providers to generate, collect, store, and transmit confidential information and data (including but not limited to intellectual property, proprietary business information, and personal information) and to operate our business. We also outsource elements of our operations to, and obtain products and services from, third parties and engage in collaborations for drug discovery with third parties, each of which has or could have access to our confidential information.

We deploy and operate an array of technical and procedural controls to reduce the risks to our information technology systems and infrastructure and to maintain the confidentiality and integrity of our data, and we expect to continue to incur significant costs on detection and prevention efforts. Despite these measures, our information technology and other internal infrastructure systems face the risk of failures, security breaches, or other harm from various causes or sources, and third parties with whom we share confidential information may also experience similar events that materially impact us. These causes or sources include:

- service interruptions;
- system malfunctions;
- computer viruses;
- natural disasters;
- telecommunication and electrical failures;
- inadvertent or intentional actions by our employees or third-party providers; and
- cyber-attacks by malicious third parties, including the deployment of malware, ransomware, denial-of-service attacks, social engineering, and other means to affect service reliability and threaten the confidentiality, integrity, and availability of information.

With respect to cyber-attacks, 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 and individuals with a range of motives (including industrial espionage) and expertise, such as organized crime affiliates, terrorist organizations, or hostile foreign governments or agencies. The costs to us to investigate and mitigate cybersecurity incidents in particular could be significant. We may not be able to anticipate all types of security threats and implement preventive measures effective against all such threats. In addition, in response to the ongoing COVID-19 pandemic, an increased amount of work is occurring remotely, including through the use of mobile devices. This could increase our cybersecurity risk, create data accessibility concerns, and make us more susceptible to communication disruptions.

We have experienced, and may continue to experience, cyber-attacks, security breaches, and other system failures, although to our knowledge we have not experienced any material interruption or incident to date. If we do not accurately predict and identify our infrastructure requirements and failures and timely enhance our infrastructure, or if our remediation efforts are not successful, it could result in a material disruption of our business operations and development programs, including the loss or unauthorized disclosure of our trade secrets, individuals' personal information, or other proprietary or sensitive data. For example, we use a set of proprietary tools to generate, analyze, and derive novel insights from our biological and chemical data. The loss, corruption, unavailability of, or damage to our data would interfere with and undermine the insights we draw from our platform, which could result in the waste of resources on insights based on flawed premises or other adverse consequences. In addition, the loss or corruption of, or other damage to, clinical trial data from completed or future clinical trials could result in delays in our regulatory approval efforts, as well as significant costs to recover or reproduce the data. A security breach that leads to unauthorized disclosure of our intellectual property or other proprietary information could also affect our intellectual property rights and enable competitors to compete with us more effectively. Likewise, as we rely on third parties for the manufacture of our drug candidates and to conduct clinical trials, similar events relating to their systems and operations could also have a material adverse effect on our business and lead to regulatory agency actions.

Moreover, any security breach or other event that leads to loss, unauthorized access to, or disclosure of personal information, including personal information regarding clinical trial subjects, contractors, directors, or employees, could harm our reputation, compel us to comply with federal and/or state notification laws and foreign law equivalents, subject us to mandatory corrective action, and otherwise subject us to liability under laws and regulations that protect the privacy and security of personal information. For more information see "Risk Factors—We are subject to U.S. and foreign laws regarding privacy and data security that could entail substantial compliance costs, while the failure to comply could subject us to significant liability" set forth below.

To the extent that failures, disruptions, security breaches, cyber-attacks, or other harmful events result in a loss of or damage to our information technology systems or infrastructure – or the inappropriate acquisition or disclosure of confidential, proprietary, or personal information – we could be exposed to a risk of loss, enforcement measures, regulatory agency actions, penalties, fines, indemnification claims, litigation, potential civil or criminal liability, collaborators' loss of confidence, damage to our reputation, and other consequences, which could materially adversely affect our business and results of operations. While we maintain insurance coverage for certain expenses and liabilities related to failures or breaches of our information technology systems, it may not be adequate to cover all losses associated with such events. In addition, such insurance may not be available to us in the future on

satisfactory terms or at all. Furthermore, if the information technology systems of third parties with whom we do business become subject to disruptions or security breaches, we may have insufficient recourse against them.

Interruptions in the availability of server systems or communications with internet or cloud-based services, or failure to maintain the security, confidentiality, accessibility, or integrity of data stored on such systems, could harm our business.

We rely on third-party data centers and telecommunications solutions, including cloud infrastructure services such as Google Cloud and Amazon Web Services, to host substantial portions of our technology platforms and to support our business operations. We have no control over these cloud-based service or other third-party providers, although we attempt to reduce risk by minimizing reliance on any single third party or its operations. We have experienced, and expect we may in the future again experience, system interruptions, outages, or delays due to a variety of factors, including infrastructure changes, human or software errors, website hosting disruptions, and capacity constraints. A prolonged service disruption affecting our cloud-based solutions could damage our reputation or otherwise materially harm our business.

Further, if the security measures of our third-party data center or cloud infrastructure providers are breached by cyber-attacks or other means and unauthorized access to our information technology systems or data occurs, it could result in interruptions to our operations and the loss of proprietary or confidential information, which could damage our reputation, cause us to incur substantial costs, divert our resources from other tasks, and subject us to significant legal and financial exposure and liabilities, any one of which could materially adversely affect our business, results of operations, and prospects. Such third-party providers may also be subject to natural disasters, power losses, telecommunications failures, or other disruptive events that could negatively affect our business and require us to incur significant costs to secure alternate cloud-based solutions. In addition, any changes in our providers' service levels or features that we utilize or a termination of our agreements could also adversely affect our business.

Our solutions utilize third-party open source software (OSS), which presents risks that could adversely affect our business and subject us to possible litigation.

Our solutions include software that is licensed from third parties under open source licenses, and we expect to continue to incorporate such OSS in our solutions in the future. We cannot ensure that we have effectively monitored our use of OSS, validated the quality or source of such software, or are in compliance with the terms of the applicable open source licenses or our policies and procedures. Use of OSS may entail greater risks than use of third-party commercial software as open source licensors generally do not provide support, updates, or warranties or other contractual protections regarding infringement claims or the quality of the code. OSS may also be more susceptible to security vulnerabilities. Third-party OSS providers could experience service outages, data loss, privacy breaches, cyber-attacks, and other events relating to the applications and services they provide, which could diminish the utility of these services and harm our business. We also could be subject to lawsuits by third parties claiming that what we believe to be licensed OSS infringes such parties' intellectual property rights, which could be costly for us to defend and require us to devote additional research and development resources to change our solutions.

RISKS RELATED TO OUR OPERATIONS/COMMERCIALIZATION

The ongoing COVID-19 pandemic may materially and adversely affect our business and operating results and could disrupt the development of our drug candidates.

The COVID-19 pandemic, which has continued to spread, and the related adverse public health developments, have disrupted the normal operations of businesses across industries, including the biotechnology and pharmaceutical industries. National, state, and local governments in regions affected by the COVID-19 pandemic have implemented, or may implement or reinstitute, measures such as quarantines, shelter-in-place policies,

travel restrictions, and other public safety protocols. The health effects of the pandemic, along with these initiatives, have adversely affected workforces, organizations, government entities, healthcare communities, regional and national economies, and financial markets, leading to economic slowdowns and increased market volatility from time to time.

We continue to monitor applicable government recommendations and have made some modifications to our normal operations. For example, we have instituted a temporary work from home policy for certain personnel and suspended all non-essential business travel. Although we believe that these and the other safety measures we have taken have not substantially impacted our productivity or business activities, it is not certain that this will continue to be the case. Moreover, the risk of cyber-attacks or other privacy or data security incidents may be heightened as a result of the increased number of personnel working remotely, which may be less secure and lead to the release of confidential or proprietary information that could adversely affect our business. And notwithstanding governmental precautionary measures or those implemented by us, the COVID-19 pandemic or other similar outbreak could affect the health and availability of our workforce, as well as that of the third parties from whom we obtain goods and services.

In addition, the continued global spread of COVID-19 — including any variants that are more contagious, have more severe effects, or are resistant to treatments or vaccinations — could adversely impact our preclinical or clinical trial operations in the U.S. and other countries, including our ability to recruit and retain trial participants as well as principal investigators and site staff. As may be the case with other biopharmaceutical companies, we could experience protocol deviations, difficulties in enrolling participants, and delays in activating new trial sites and in initiating and concluding preclinical and clinical studies. Also, the COVID-19 pandemic could make it more difficult or costly to source products needed for the trials, or to engage with CROs and regulators regarding our drug candidates. Any negative impact COVID-19 has on enrollment in or the execution of our drug trials, or our interactions with CROs or regulators, could cause costly delays, adversely affect our ability to obtain regulatory approval for and to commercialize our drug candidates, increase our operating expenses, and have a material adverse effect on our business and operating results.

The ultimate direct and indirect impacts of COVID-19 on our operations, including our research and development activities and preclinical and clinical trials, or the operations of our third-party partners, will depend on future developments that are highly uncertain and difficult to predict, including (i) the duration and severity of the pandemic; (ii) the availability and acceptance rates of vaccines; (iii) the availability and effectiveness of treatments; and (iv) the success of containment and protective measures. If these impacts are more severe than we anticipate or our countermeasures are insufficient, it could disrupt our ability to develop, obtain regulatory approvals for, and commercialize drug candidates, and have a material adverse effect on our business and results of operation. Further, uncertainty around these and related issues could lead to adverse effects on the economies of the U.S. and other countries, which could impact our ability to raise the capital needed to develop and commercialize our drug candidates.

Even if any drug candidates we develop receive marketing approval, they may fail to achieve the degree of market acceptance by physicians, patients, healthcare payors, and others in the medical community necessary for commercial success.

The commercial success of our drug candidates that receive marketing approval will depend upon their degree of market acceptance by physicians, patients, third-party payors, and others in the medical community. The degree of market acceptance will depend on a number of factors, including:

- their efficacy and safety as demonstrated in pivotal clinical trials and published in peer-reviewed journals;
- their potential and perceived advantages compared to alternative treatments, including any similar generic treatments;
- the prevalence and severity of any side effects or adverse events;
- our ability to offer these products for sale at competitive prices;
- our ability to offer appropriate patient access programs, such as co-pay assistance;

- their convenience and ease of dosing and administration compared to alternative treatments;
- the clinical indications for which the drug candidate is approved by the FDA or comparable regulatory agencies;
- product labeling or product insert requirements of the FDA or other comparable foreign regulatory authorities, including any limitations, contraindications, or warnings;
- restrictions on how the product is distributed;
- the timing of market introduction of competitive products;
- publicity concerning these products or competing products and treatments;
- the strength of marketing and distribution support; and
- favorable third-party coverage and sufficient reimbursement.

Sales of medical products also depend on the willingness of physicians to prescribe the treatment, which is likely to be based on a determination by these physicians 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, as well as the viewpoints of influential physicians, can affect the willingness of other physicians to prescribe the treatment. We cannot predict whether physicians, physicians' organizations, hospitals, other healthcare providers, government agencies, or private insurers will determine that any product we may develop is safe, therapeutically effective and cost-effective as compared with competing treatments. If any drug candidates we develop do not achieve an adequate level of acceptance, we may not generate significant product revenue, and we may not become profitable.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to sell and market any drug candidates we may develop, we may not be successful in commercializing those drug candidates, if and when they are approved.

We do not have a sales or marketing infrastructure and have little experience in the sale, marketing, or distribution of pharmaceutical products. To achieve commercial success for any approved product for which we retain sales and marketing responsibilities, we must either develop a sales and marketing organization, develop sales and marketing software solutions, or outsource these functions to third parties. In the future, we may choose to build a focused sales, marketing, and commercial support infrastructure to market and sell our drug candidates, if and when they are approved. We may also elect to enter into collaborations or strategic partnerships with third parties to engage in commercialization activities with respect to selected drug candidates, indications, or geographic territories, including territories outside the United States, although there is no guarantee we will be able to enter into these arrangements.

There are risks involved with both establishing our own commercial capabilities and entering into arrangements with third parties to perform these services. For example, recruiting and training a sales force or reimbursement specialists is expensive and time-consuming and could delay any product launch. If the commercial launch of a drug candidate for which we recruit a sales force and establish marketing and other commercialization capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition commercialization personnel. Factors that may inhibit our efforts to commercialize any approved product on our own include:

- the inability to recruit and retain adequate numbers of effective sales, marketing, reimbursement, customer service, medical affairs, and other support personnel;
- the inability of sales personnel or software tools to obtain access to physicians or persuade adequate numbers of physicians to prescribe any future approved products;
- the inability of reimbursement professionals to negotiate arrangements for formulary access, reimbursement, and other acceptance by payors;
- the inability to price products at a sufficient price point to enable an adequate and attractive level of profitability;

- restricted or closed distribution channels that make it difficult to distribute our products to segments of the patient population;
- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and
- unforeseen costs and expenses associated with creating an independent commercialization organization.

If we enter into arrangements with third parties to perform sales, marketing, commercial support, and distribution services, they may also experience many of the above challenges. In addition, our product revenue or the profitability of product revenue may be lower than if we were to market and sell any products we may develop internally. We may not be successful in entering into such arrangements, or we may be unable to do so on terms that are favorable to us or them. We also may have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively, or they may expose us to legal and regulatory risk by not adhering to regulatory requirements and restrictions governing the sale and promotion of prescription drug products, including those restricting off-label promotion. If we do not establish commercialization capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing any future approved drug candidates.

We are subject to regulatory and operational risks associated with the physical and digital infrastructure at both our internal facilities and those of our external service providers.

Our facilities in Salt Lake City, Utah have not been reviewed or pre-approved by any regulatory agency, such as the FDA. An inspection by the FDA could disrupt our ability to generate data and develop drug candidates. Our laboratory facilities are designed to incorporate a significant level of automation of equipment, with integration of several digital systems to improve efficiency of research operations. We have attempted to achieve a high level of digitization for a research operation relative to industry standards. While this is meant to improve operational efficiency, this may pose additional risk of equipment malfunction and even overall system failure or shutdown due to internal or external factors including, but not limited to, design issues, system compatibility, or potential cybersecurity breaches. This may lead to delay in potential drug candidate identification or a shutdown of our facility. Any disruption in our data generation capabilities could cause delays in advancing new drug candidates into our pipeline, advancing existing programs, or enhancing the capabilities of our platform, including expanding our data, the occurrence of which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

In the future, we may manufacture drug substances or products at our facilities for preclinical and clinical use, and we may face risks arising from our limited prior manufacturing capability and experience.

We do not currently have the infrastructure or capability internally to manufacture drug substances or products for preclinical, clinical, or commercial use. If, in the future, we decide to produce drug substances or products for preclinical and clinical use, the costs of developing suitable facilities and infrastructure and implementing appropriate manufacturing processes may be greater than expected. We may also have difficulty implementing the full operational state of the facility, causing delays to preclinical or clinical supply or the need to rely on third-party service providers, resulting in unplanned expenses.

As we expand our development and commercial capacity, we may establish manufacturing capabilities inside the Salt Lake City area or in other locations or geographies, which may lead to regulatory delays or prove costly. If we fail to select the correct location, complete construction in an efficient manner, recruit the appropriate personnel, and generally manage our growth effectively, the development and production of our investigational medicines could be delayed or curtailed.

Recursion, or the third parties upon whom we depend, may be adversely affected by natural disasters, and our business continuity and disaster recovery plans may not be adequate.

Our current operations are located in Salt Lake City, Utah; Milpitas, California; and Canada. Any unplanned event, such as flood, fire, explosion, earthquake, extreme weather condition, medical epidemics (including any potential effects from the current global spread of COVID-19), power shortages, telecommunications failure, or other natural or man-made 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 and have significant negative consequences on our financial and operating conditions. Loss of access to these facilities may result in increased costs, delays in the development of our drug candidates, and interruption of our business operations. Natural disasters or pandemics, such as the COVID-19 outbreak, could further disrupt our operations and have a material and adverse effect on our business, financial condition, results of operations, and prospects. Our wet lab houses the robots used to produce our dataset that builds the Recursion Data Universe, which is a key means by which we conduct drug candidate discovery. If a natural disaster, power outage, or other event occurred that (i) prevented us from using all or a significant portion of our headquarters or the datacenter where we collocate our graphics processing unit cluster; (ii) damaged critical infrastructure or our robots, such as our research facilities or the manufacturing facilities of our third-party contract manufacturers; or (iii) 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.

Furthermore, we do not have a disaster recovery and business continuity plan for systems related to chemistry. 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. 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, the amounts of insurance may not be sufficient to satisfy all 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 may have a material and adverse effect on our business, financial condition, results of operations and prospects.

In addition, our facilities in Salt Lake City, Utah are located in a busy downtown area. Although we believe we have taken the necessary steps to ensure our operations are safe to the surrounding area, there could be a risk to the public if we were to conduct hazardous material research, including use of flammable chemicals and materials, at our facilities. If the surrounding community perceives our facility as unsafe, it could have a material and adverse effect on our reputation and operations.

If we fail to comply with environmental, health and safety, or other laws and regulations, we could become subject to fines, penalties, or personal injury or property damages.

We are subject to numerous environmental, health and safety, and other laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment, and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological and radioactive materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for significant damages for harm to persons or property, as well as civil or criminal fines and penalties. Although we maintain workers' compensation insurance to cover costs and expenses arising from injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities.

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

We do not carry insurance for all categories of risk that our business may encounter and insurance coverage is becoming increasingly expensive. For example, we can only obtain insurance for the loss of our data that would partially compensate us for its loss. We do not know if we will be able to maintain existing insurance with adequate levels of coverage in the future, and any liability insurance coverage we acquire in the future may not be sufficient to reimburse us for any expenses or losses we may suffer. If we obtain marketing approval for any drug candidates that we or our collaborators may develop, we intend to acquire insurance coverage to include the sale of commercial products, but we may be unable to obtain such insurance on commercially reasonable terms or in adequate amounts. The coverage or coverage limits currently maintained under our insurance policies may not be adequate. If our losses exceed our insurance coverage, our financial condition would be adversely affected. Clinical trials or regulatory approvals for any of our drug candidates could be suspended, which could adversely affect our results of operations and business, including by preventing or limiting the development and commercialization of any drug candidates that we or our collaborators may identify. Additionally, operating as a public company will make it more expensive for us to obtain directors and officers liability insurance. If we do not have adequate levels of directors and officers liability insurance, it may be more difficult for us to attract and retain qualified individuals to serve on our board of directors.

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

We have substantial federal net operating loss (NOL) carryforwards. To the extent that we continue to generate taxable losses as expected, unused losses will carry forward to offset future taxable income, if any, until such unused losses expire, except under certain circumstances. Under Section 382 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an “ownership change,” its ability to use pre-change NOL carryforwards and certain other pre-change tax attributes (such as research tax credits) to offset its post-change income could be subject to an annual limitation. An “ownership change” is generally defined as a greater than 50% change by value in the ownership of the corporation’s equity by over a three-year period. Such annual limitation could result in the expiration of a portion of our NOL carryforwards before utilization. If not utilized, the carryforwards will begin to expire in 2036. We may have experienced ownership changes within the meaning of Section 382 in the past and we may experience some ownership changes in the future as a result of subsequent shifts in our stock ownership, such as a result of our initial public offering in April 2021, follow-on offerings, or subsequent shifts in our stock ownership (some of which shifts are outside our control. We have not conducted a study to assess whether an ownership change for the purposes of Section 382 has occurred due to the significant complexity and cost associated with such a study. Future legislative or regulatory changes could also negatively impact our ability to utilize our NOL carryforwards or other tax attributes. Similar provisions of state tax law may also suspend or otherwise limit the ability to use NOLs and accumulated state tax attributes. As a result, if we attain profitability, we may be unable to use all or a material portion of our NOL carryforwards and other tax attributes for federal and state tax purposes, which could result in increased tax liability and adversely affect our future cash flows.

If our estimates or judgments relating to our critical accounting policies prove to be incorrect, or financial reporting standards or interpretations change, our results of operations could be adversely affected.

The preparation of financial statements in conformity with generally accepted accounting principles in the United States (U.S. GAAP) requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. We base our estimates on historical experience, known trends and events, and various other factors that we believe to be reasonable under the circumstances, as provided in “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Use of Estimates.” The results of these estimates form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Significant assumptions and estimates used in preparing our consolidated financial statements include stock-based compensation and valuation of our equity investments in early-stage biotechnology companies. Our results of operations may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions.

Additionally, we regularly monitor our compliance with applicable financial reporting standards and review new pronouncements and drafts thereof that are relevant to us. As a result of new standards, changes to existing standards, or changes in their interpretation, we might be required to change our accounting policies, alter our operational policies, and implement new or enhanced systems so that they reflect new or amended financial reporting standards, or we may be required to restate our published financial statements, which may have an adverse effect on our financial position and reputation.

Product liability lawsuits could cause us to incur substantial liabilities and could limit commercialization of any drug candidates that we may develop.

We face an inherent risk of product liability exposure related to the testing of drug candidates in human clinical trials, and we will face an even greater risk if we commercially sell any medicines that we may develop. If we cannot successfully defend ourselves against claims that our drug candidates or medicines caused injuries, we could incur substantial damages or settlement liability. Regardless of merit or eventual outcome, liability claims may also result in:

- decreased demand for any drug candidates or therapeutics that we may develop;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- significant costs to defend the litigation;
- substantial monetary awards to trial participants or patients;
- loss of revenue; and
- the inability to commercialize our drug candidates.

Although we maintain product liability insurance, including coverage for clinical trials that we sponsor, it may not be adequate to cover all liabilities that we may incur. We anticipate that we will need to increase our insurance coverage as we commence additional clinical trials and if we successfully commercialize any drug candidates. The market for insurance coverage can be challenging, and the costs of insurance coverage will increase as our clinical programs increase in size. We may not be able to maintain insurance coverage at a reasonable cost and with adequate limits to satisfy any and all liability that may arise.

RISKS RELATED TO OUR RELIANCE ON THIRD PARTIES

Third parties that perform some of our research and preclinical testing or conduct our clinical trials may not perform satisfactorily or their agreements may be terminated.

We currently rely, and expect to continue to rely, on third parties to conduct some aspects of research and preclinical testing and clinical trials. The third parties include clinical research organizations, clinical data management organizations, medical institutions, and principal investigators. Any of these third parties may fail to fulfill their contractual obligations, including by not meeting deadlines for the completion of research, testing, or trials, or we or they may terminate their engagements with us. If any of our relationships with these third parties terminate, we may not be able to enter into arrangements with alternative third parties on commercially reasonable terms, or at all. If we need to enter into alternative arrangements, it could delay product development activities.

Our reliance on third parties for research and development activities reduces our control over these activities, but does not relieve us of our responsibilities. For example, we remain responsible for ensuring that each of our respective clinical trials is conducted in accordance with the general investigational plan and protocols for the trial, as well as applicable legal, regulatory, and scientific standards. We also are required to register ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database within certain

timeframes. In addition, the FDA and comparable foreign regulatory authorities require compliance with good clinical practices (GCP) guidelines for conducting, recording, and reporting the results of clinical trials to assure that data and reported results are credible, reproducible, and accurate, and that the rights, integrity, and confidentiality of trial participants are protected. Regulatory authorities enforce GCP compliance through periodic inspections of trial sponsors, principal investigators, and trial sites.

If we or any of the third parties fail to comply with applicable GCP regulations, some or all of the clinical data generated in our clinical trials may be deemed unreliable, and the FDA or comparable foreign regulatory authorities may require us to perform additional nonclinical or clinical trials or to enroll additional patients before approving our marketing applications. In addition, if we or the third parties fail to comply with our stated protocols or applicable laws and regulations during the conduct of clinical trials, we could be subject to warning letters or enforcement actions by the FDA and comparable foreign regulatory authorities, which could result in civil penalties or criminal prosecution, as well as adverse publicity that harms our business.

We also will not be able to obtain, or may be delayed in obtaining, marketing approvals for any drug candidates we may develop if these third parties do not successfully carry out their contractual duties, meet expected deadlines, or conduct clinical trials in accordance with our stated protocols or regulatory requirements. As a result, we may be delayed or unable to successfully commercialize our medicines.

Third parties that manufacture our drug candidates for preclinical development, clinical testing, and future commercialization may not provide sufficient quantities of our drug candidates or products at an acceptable cost, which could delay, impair, or prevent our development or commercialization efforts.

We do not currently own or operate any manufacturing facilities and have no manufacturing personnel, although we are in the process of securing a facility to establish production capabilities for preclinical animal studies and early human clinical trials. We rely, and expect to continue to rely, on third parties for drug supplies for our clinical trials, the manufacture of many of our drug candidates for preclinical development and clinical testing, as well as the commercial manufacture of our products if any of our drug candidates receive marketing approval. We may be unable to establish necessary agreements with third-party manufacturers or to do so on acceptable terms. This reliance on third parties increases the risk that we will not have sufficient quantities of our drug candidates or products, or have sufficient quantities at an acceptable cost or quality, which could delay, impair, or prevent our development or commercialization efforts.

In addition, the facilities used by our contract manufacturers to manufacture our drug candidates must be inspected by the FDA pursuant to pre-approval inspections that will be conducted after we submit our marketing applications to the FDA. We do not expect to control the manufacturing process of, and will be completely dependent on, our contract manufacturers for compliance with current good manufacturing practice guidelines (cGMP) in connection with the manufacture of our drug candidates in the near to intermediate term, or possibly the long term. If our contract manufacturers cannot maintain adequate quality control and qualified personnel to successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or others, they will not be able to pass regulatory inspections and/or maintain regulatory compliance for their manufacturing facilities.

If the FDA or a comparable foreign regulatory authority finds deficiencies with, does not approve, or withdraws approval of these facilities for the manufacture of our drug candidates, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for, or market our drug candidates, if approved. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for us. Our drug candidates and any other products that we may develop may compete with the drug candidates and approved products of other companies for access to manufacturing facilities or capacity, which may further restrict our ability to secure manufacturing sites.

Further, our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of drug candidates or products that may be

approved, operating restrictions, and criminal prosecutions, any of which could significantly and adversely affect our business and supplies of our drug candidates.

Even if we are able to establish agreements with third-party manufacturers, reliance on third-party manufacturers entails additional risks, including:

- reliance on the third party for regulatory compliance and quality assurance;
- the possible breach of the manufacturing agreement by the third party;
- the possible misappropriation of our proprietary information, including our trade secrets and know-how; and
- the possible termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us.

Any performance failure on the part of our existing or future manufacturers could delay clinical development or marketing approval. If it is necessary to replace any such manufacturer, we may incur added costs and delays in identifying and qualifying any a replacement. In addition, any performance failure on the part of our distributors could delay clinical development or marketing approval of any drug candidates we may develop or seek to commercialize, producing additional losses and depriving us of product revenue.

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

If we are unable to adequately source clinical and commercial supplies, equipment, and active pharmaceutical ingredients (API) from third party vendors as our drug development pipeline matures, it could significantly harm our business.

We procure raw materials, components, parts, consumables, reagents, and equipment used in the development and operation of our platform and the development of our drug candidates from third party vendors. We also rely on third party vendors to perform quality testing. Particular risks to our platform include reliance on third-party equipment and instrument suppliers and consumable and reagent suppliers. As we increase development of drug products and commence clinical testing and commercialization, we will require expanded capacity across our supply chain. We face risks regarding our sourcing of products and quality-testing services, including:

- the inability of suppliers and service providers to grow their capacity to meet demand, whether from us or other drug manufacturers, particularly if the field of technology- enabled drug discovery continues to expand;
- termination or non-renewal of supply and service agreements with third parties in a manner or at a time that is costly or damaging to us;
- disruptions to the operations of these suppliers and service providers caused by conditions unrelated to our business or operations, including the bankruptcy of the supplier or service provider or force majeure events, such as the COVID-19 pandemic; and
- inspections of third-party facilities by regulatory authorities that could have a negative outcome and result in delays in, or termination of, their ability to meet our requirements.

Moreover, certain of our specialized equipment, as well as the API used in our drug candidates, are obtained from single-source suppliers. Our ability to successfully develop our drug candidates, and to ultimately supply our commercial products in quantities sufficient to meet the market demand, depends in part on our ability to obtain equipment and the API for these products in accordance with regulatory requirements and in sufficient quantities for clinical testing and commercialization. We do not currently have arrangements in place for a redundant or second-source supply of any such equipment or ingredients in the event any of our current suppliers fails or is unable to meet our requirements. While our single-source suppliers have generally met our demand for their products on a

timely basis in the past, we are not certain that they will be able to meet our future demand, whether due to any of the above factors, the nature of our agreements with those suppliers, our limited experience with those suppliers, our relative importance as a customer, or any other reason. For all of our drug candidates, we intend to identify and qualify additional vendors and manufacturers, as available, to provide such equipment and API prior to our submission of an NDA to the FDA and/or an MAA to the EMA, which may require additional regulatory inspection or approval and result in further delay.

Any interruption or delay in the supply of components, materials, specialized equipment, API, and quality-testing sources at acceptable prices and in a timely manner could impede, delay, limit, or prevent our development efforts, which could harm our business, results of operations, and prospects.

RISKS RELATED TO OUR INTELLECTUAL PROPERTY

Our success significantly depends on our ability to obtain patents of adequate scope covering our proprietary technology and products. Obtaining and maintaining patent assets is inherently challenging, and our pending and future patent applications may not issue with the scope we need, if at all.

We protect our products, product candidates, and platform technologies, in both the U.S, and internationally, with patents and patent applications owned by or licensed to us, and we plan to file additional patent applications in the future. Our commercial success will depend in significant part on our ability to obtain, maintain, protect, and enforce our patents and other intellectual property rights in the U.S. and other countries for our drug candidates and our core technologies important to the development and implementation of our business, including our phenomics platform, preclinical and clinical assets, and related know-how.

Patent prosecution is a complex, expensive, and lengthy process, with no guarantee that a patent will issue in a timely fashion or at all, or with sufficiently broad claims to protect our drug candidates and core technologies. Further, the laws and regulations for obtaining and maintaining patents are subject to change by legislative or judicial action in the relevant jurisdictions. The patent positions of pharmaceutical, biotechnology, and other life sciences companies in particular can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date in the U.S., and tests used for determining the patentability of patent claims in all technologies are in flux. The pharmaceutical, biotechnology, and other life sciences patent situation outside the U.S. can be even more uncertain. The U.S. Patent and Trademark Office (USPTO) and patent offices in other jurisdictions have often required that patent applications concerning pharmaceutical and/or biotechnology-related inventions be limited or narrowed substantially to cover only the specific innovations exemplified in the patent application, thereby limiting the scope of protection against competitive challenges.

The issuance of a patent is not conclusive as to its inventorship, scope, validity, or enforceability, and our owned and licensed patents may be challenged in the patent offices and courts in the United States and abroad. Third parties may invent, publish, or file patents of their own in ways which overlap or conflict with our patent rights. Moreover, even if unchallenged, our owned patent portfolio and any patent portfolio we license may not provide us with any meaningful protection or prevent competitors from designing around our patent claims to circumvent our owned or licensed patents by developing similar or alternative technologies or products in a non-infringing manner. For example, a third party may develop a competitive product that provides benefits similar to one or more of our drug candidates, but that has a different composition that falls outside the scope of our patent protection. In addition, patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after its first effective, non-provisional filing date, and patents protecting drug candidates might expire before or shortly after the candidates are commercialized given the amount of time required for development, testing, and regulatory review. The various governmental patent agencies also require compliance with extensive rules and fee obligations. Failure to do so can, under certain circumstances, result in the abandonment of a patent application or the termination of patent rights. Non-compliance events that could result in abandonment or lapse of a patent or patent application include a failure to respond to official actions within prescribed time limits, non-payment of fees, and failure to properly legalize and submit formal documents.

We have patent applications pending before the USPTO and other patent offices, and we plan to file new applications in the future. Patent offices may require us to significantly narrow our claims based upon prior art discovered by the USPTO or through third-party submissions. Moreover, we do not always have the right to control the preparation, filing, prosecution, and maintenance of licensed patents and applications under arrangements with collaborators or licensors. We may become involved in procedural challenges, including inter parties review, which could result in the narrowing or elimination of our patent rights or those of our licensors. This could limit our ability to stop others from freely using or commercializing similar or identical technology and products, or limit the duration of the patent protection covering our technology and drug candidates. Such challenges may also result in our inability to manufacture or commercialize our drug candidates without infringing third-party patent rights. Further, inadvertent or intentional public disclosures of our inventions prior to the filing of a patent application have precluded us, and in the future may preclude us, from obtaining patent protection in certain jurisdictions. We also could fail to identify patentable aspects of our technology and research and development output in time to obtain patent protection.

We also currently own a number of U.S. provisional patent applications. These provisional applications are not eligible to become issued patents until, among other things, we file a non-provisional patent application within 12 months of filing one or more of our related provisional patent applications. If we do not timely file any non-provisional patent applications, we may lose our priority dates with respect to our provisional patent applications and any patent protection on the inventions disclosed in such applications.

We presently do not own or in-license any issued patents with respect to certain of our programs, including our product candidate for the treatment of GM2 gangliosidosis (REC-3599); lead molecules for the treatment of C. difficile colitis (REC-163964, REC-164014, and REC-164067); lead molecules for the treatment of neuroinflammation (REC-648455, REC-648597, and REC-648677); lead molecules for the treatment of Batten disease (REC-648190, REC-259618, and REC-648647); lead molecules for the treatment of CMT2A (REC-64810, REC-648458, REC-1262, and REC-150357); lead molecules for the treatment of STK11-mutant immune checkpoint resistance in non-small cell lung cancer (REC-64151); and MYC inhibitory molecules for the treatment of solid and hematological malignancies.

We cannot provide any assurances that any of our or our licensors' pending or future patent applications will issue, or that any pending or future patent applications that mature into issued patents will include claims with a scope sufficient to protect our drug candidates from competition. If we fail to obtain and maintain adequate intellectual property protection covering any technology, invention, or improvement that is important to our business, or if the scope of the patent protection obtained is not sufficiently broad, we may not be able to prevent third parties from launching generic versions of our products, from using our proprietary technologies, or from marketing products that are very similar or identical to ours. If the breadth or strength of protection provided by our patents and patent applications are threatened, it could also dissuade companies from collaborating with us to license, develop, or commercialize current or future drug candidates. This could have a material, adverse effect on our ability to successfully commercialize our technology and products, and on our business and results of operations.

Our current proprietary position for certain drug candidates depends upon our owned or in-licensed patent filings covering components of such drug candidates, manufacturing-related methods, formulations, and/or methods of use, which may not adequately prevent a competitor or other third party from using the same drug candidate for the same or a different use.

Composition of matter patent protection is generally considered to be desirable for drug products because it provides protection without regard to any particular method of use or manufacturing, or formulation. For some of the molecules that we in-license from our collaboration partners, we cannot rely on composition of matter patent protection as the term on those patents has expired or is close to expiring.

Method of use patents protect the use of a product for the specified method and formulation patents cover formulations to deliver therapeutics. While we file applications covering method of use for our programs at appropriate times in the development process, we cannot be certain that claims in any future patents issuing from these applications will cover all commercially-relevant applications of molecules in competing uses. These types of

patents do not prevent a competitor or other third party from developing, marketing, or commercializing a similar or identical product for an indication that is outside the scope of the patented method, or from developing a different formulation that is outside the scope of the patented formulation. Moreover, with respect to method of use patents, even if competitors or other third parties do not actively promote their product for our targeted indications or uses for which we may obtain patents, physicians may recommend that patients use these products off-label, or patients may do so themselves. Although off-label use may infringe or contribute to the infringement of method of use patents, the practice is common and this type of infringement is difficult to prevent or enforce. Additionally, some commercially-relevant jurisdictions do not allow for patents covering a new method of use of an otherwise-known molecule. Consequently, we may not be able to prevent third parties from practicing our inventions in the United States or abroad, which may have a material adverse effect on our business.

If we do not obtain patent term extension and data exclusivity for any drug candidates we may develop, our business may be materially harmed.

Depending upon the timing, duration, and specifics of any FDA marketing approval of any drug candidates we may develop, one or more of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Action of 1984, referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent extension term of up to five years as compensation for patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond 14 years from the date of product approval. Only one patent may be extended and only those claims covering the approved drug, a method for using it, or a method for manufacturing it may be extended. However, we may not be granted an extension because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents, or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or the term of any such extension is less than we request, our competitors may obtain approval of competing products following our patent expiration, and our business, financial condition, results of operations and prospects could be materially harmed.

We may need to license certain intellectual property from third parties, and such licenses may not be available or may not be available on commercially reasonable terms.

A third party may hold intellectual property, including patent rights, that are important or necessary to the development of our products. It may be necessary for us to use the patented or proprietary technology of third parties to commercialize our products, in which case we would be required to obtain a license from these third parties on commercially reasonable terms, or our business could be harmed, possibly materially. For example, when we explore repurposing molecules owned by our collaboration partners or other third parties, we in-license the rights to use those molecules for our use. If we are not able to obtain a license, or to obtain one on commercially reasonable terms and with sufficient breadth to cover the intended use of third-party intellectual property, our business could be materially harmed.

Intellectual property rights do not necessarily address all potential threats.

The degree of future protection afforded by our intellectual property rights, and particularly those arising from patents, is uncertain because these rights have limitations and may not adequately protect our business or permit us to maintain our competitive advantage. Examples where our intellectual property rights may not further our competitive advantage include the following:

- others may be able to duplicate or utilize similar technology in a manner that infringes our patents but is undetectable or done in a jurisdiction where we have not secured, or cannot secure or enforce, patent rights;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our owned or licensed intellectual property rights;

- our competitors or other third parties might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable; and
- we may choose not to file a patent in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property.

Should any of these events occur, they could have a material, adverse effect on our business and results of operations.

If we are unable to protect the confidentiality of our trade secrets and know-how, our business and competitive position may be harmed.

In addition to the protection afforded by patents, we rely on trade secret protection and contractual arrangements to protect proprietary know-how, information, and technology that is not covered by our patents. With respect to curating our data and our library of small molecules generally, we consider trade secrets and know-how to be our primary intellectual property. We seek to protect our proprietary technology and processes, in part, by entering into confidentiality agreements with our collaborators, scientific advisors, employees, and consultants. Our agreements with our employees and consultants also require them to acknowledge ownership by us of inventions they may conceive as a result of their work for us and to perfect such ownership by assignment. However, we may not be able to prevent the unauthorized disclosure or use of our trade secrets or other confidential information through these agreements or other preventative measures. In addition, third parties, including our competitors, could independently develop and lawfully use the same or substantially equivalent trade secrets and know-how.

Unpatented proprietary rights, including trade secrets and know-how, can be difficult to protect and may lose their value if their secrecy is lost or they are independently developed by a third party. Any loss of trade secret protection or other unpatented proprietary rights could harm our business, results of operations, and financial condition.

We may be subject to claims that we or our employees have wrongfully used or disclosed alleged trade secrets of third parties or are in breach of their non-competition or non-solicitation agreements with third parties.

We take efforts intended 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, or breach any applicable non-competition or non-solicitation agreement. However, we may in the future be subject to claims that we or these individuals have, inadvertently or otherwise, used or disclosed the alleged trade secrets or other proprietary information of a third party, including a former employer or competitor, or that we caused an employee or contractor to breach the terms of their non-competition or non-solicitation agreement with a third party. 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 obtaining such agreements or an assignment of rights to us.

Litigation may be necessary to defend against or enforce these claims, which may be costly, a distraction to management, and of uncertain outcome. If we are found liable for disclosure or misuse of a third party's proprietary information, or are unable to secure rights to intellectual property developed by an employee or contractor, in addition to requiring us to pay damages, a court could prohibit us from using technologies or features that may be essential to our drug candidates that incorporate or are derived from such proprietary information, in addition to awarding damages. Moreover, any such litigation could also adversely affect our ability to hire or retain employees or contractors. If we are unable to establish our rights to valuable intellectual property or retain key personnel, it may prevent us from successfully commercializing our drug candidates and have an adverse effect on our business, financial condition, and results of operation.

Litigation to defend against third party claims that we are infringing their intellectual property rights, or to enforce our intellectual property rights, presents numerous risks.

The biotechnology and pharmaceutical industries are characterized by extensive and frequent litigation regarding patents and other intellectual property rights. Intellectual property litigation or other legal proceedings, with or without merit, is generally expensive and time consuming, potentially distracting to technical and management personnel, and subject to uncertain outcomes. 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.

Our commercial success depends upon our ability, and that of our collaborators, to develop, manufacture, market, and sell our drug candidates, and to use our proprietary technologies, without infringing, misappropriating, or otherwise violating the intellectual property or proprietary rights of third parties. Given the vast and continually increasing number of patents in our field of technology, we cannot be certain that we do not infringe existing patents or that we will not infringe patents granted in the future. We may in the future become party to, or threatened with, litigation or adversarial proceedings initiated by our competitors or other third parties alleging that our products or technologies are covered by their patents.

Many companies have obtained patents or filed patent applications in areas important to our business, including artificial intelligence and deep learning, technology-aided drug discovery, CRISPR, high-throughput screening, and combinations of any or all of these fields. For example, we sublicense CRISPR-Cas9 gene editing technology from a licensed vendor, which provides critical tools upon which portions of our drug discovery process relies. CRISPR-Cas9 gene editing is a field that is highly active for patent filings and there are ongoing disputes between third parties, which we are not party to, regarding the ownership of and licensing rights related to the technology. The extensive patent filings related to CRISPR and Cas make it difficult for us to assess the full extent of relevant patents and pending applications that may cover this technology, and there may be third-party patents, or pending patent applications with claims that may issue in the future, covering our use of CRISPR-Cas9.

If we or our collaborators are found to infringe a third party's patent or other intellectual property rights, it could result in significant damages and costs. In addition, we could be required to obtain a license from such third party to continue developing and marketing our drug candidates and technology, which may not be available on commercially reasonable terms or at all, or to cease developing and commercializing the infringing technology or drug candidates. If we are prevented from commercializing our drug candidates or forced to cease some of our business operations, it could materially harm our reputation and have a significant adverse impact on our business and results of operations.

Alternatively, we may initiate litigation, or file counterclaims, to protect or enforce our patents and other intellectual property rights if we believe competitors or other third parties have infringed, misappropriated, or otherwise violated our rights. Our ability to enforce our intellectual property rights is subject to litigation risks, including that the opposing party may seek counterclaims against us, as well as uncertainty as to the protection and enforceability of those rights in some countries. If we seek to enforce our intellectual property rights, we may be subject to findings that our patents should be interpreted narrowly and do not cover the technology at issue, or that they are invalid or unenforceable. If we are unable to enforce and protect our intellectual property rights, or if they are circumvented, invalidated, or rendered obsolete by the rapid pace of technological change, it could have an adverse impact on our competitive position, business, and financial position.

Competing products may also be sold in other countries in which our patent coverage might not exist or be as strong. The legal systems of some countries do not favor the enforcement of patents and other intellectual property rights, while other jurisdictions may have limited enforcement rights for patent holders. This could make it difficult for us to stop the infringement of our patents, if obtained, or the misappropriation of our other intellectual property rights. Consequently, we and our licensors may have limited remedies in those foreign countries if patents are infringed, or we or our licensors may be compelled to grant a license to a third party, which could materially diminish the value of those patents and could limit our potential revenue opportunities.

In addition, competitors may use our technologies to develop their own products that compete with ours in jurisdictions where we have not obtained patent protection or where we have patent protection but limited enforcement rights. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate to obtain a significant commercial advantage from the intellectual property that we own or license.

If we fail to comply with our obligations in the agreements under which we collaborate with or license intellectual property rights from third parties, or otherwise experience disruptions to our business relationships with our collaborators or licensors, we could lose rights that are important to our business.

We license certain intellectual property that is important to our business and in the future we may enter into additional agreements that provide us with licenses to valuable intellectual property or technology. Our current license agreements impose, and we expect our future license agreements will impose, various development, diligence, commercialization, and other obligations on us in order to maintain the licenses. In spite of our efforts, a licensor might conclude that we have materially breached our obligations under a license agreement and seek to terminate the agreement, thereby removing or limiting our ability to develop and commercialize products and technology covered by the agreement. If these in-licenses are terminated, or if the underlying patent rights licensed thereunder fail to provide the intended exclusivity, competitors or other third parties would have the freedom to seek regulatory approval of, and to market, products identical to ours and we may be required to cease our development and commercialization of certain of our drug candidates. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

Moreover, disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under our collaborative development relationships;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners; and
- the priority of invention of patented technology.

The agreements under which we license intellectual property or technology from third parties may be 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 it could 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 have licensed 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 drug candidates, which could have a material adverse effect on our business, financial conditions, results of operations, and prospects.

These and similar issues may arise with respect to our collaboration agreements, such as the Bayer Agreement. Our collaboration with Bayer is one of our key collaborations, and there can be no assurance that this collaboration will continue past the current term, on favorable terms or at all, or that at any time while the collaboration is in effect the parties will operate under the agreement without disputes. Possible disputes may involve ownership or control of intellectual property rights, negotiations of licensing agreements resulting from the collaboration, exclusivity obligations, diligence and payment obligations, for example.

Some of our intellectual property has been, and in the future may be, discovered through government-funded programs and thus may be subject to federal regulations such as "march-in" rights, certain reporting requirements, and a preference for U.S.-based companies, and compliance with such regulations may limit our exclusive rights and our ability to contract with non-U.S. manufacturers.

Our intellectual property rights may be subject to a reservation of rights by one or more third parties. For example, certain intellectual property rights that we have licensed, or may in the future license, have been generated through the use of U.S. government funding. As a result, the U.S. government may have certain rights to intellectual property embodied in our current or future processes and related products and services pursuant to the Bayh-Dole Act of 1980 (the Bayh-Dole Act). These U.S. government rights include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. In addition, the U.S. government has the right, under certain limited circumstances, to require the licensor to grant exclusive, partially exclusive, or non-exclusive licenses to any of these inventions to a third party if it determines that (1) adequate steps have not been taken to commercialize the invention and achieve practical application of the government-funded technology, (2) government action is necessary to meet public health or safety needs, (3) government action is necessary to meet requirements for public use under federal regulations or (4) we fail to meet requirements of federal regulations (also referred to as "march-in rights").

The U.S. government also has the right to take title to these inventions if we or our licensors fail to disclose the invention to the government or fail to file an application to register the intellectual property within specified time limits. These rights may permit the government to disclose our confidential information to third parties. In addition, our rights in such inventions may be subject to requirements to manufacture products embodying such inventions in the United States. Intellectual property generated under a government-funded program is also subject to certain reporting requirements, compliance with which may require us to expend substantial resources.

Any exercise by the government of such rights could have a material adverse effect on our competitive position, business, results of operations and financial condition.

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

Our registered or unregistered trademarks or trade names may be challenged, infringed, circumvented, declared generic, or determined to be infringing on other marks. We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition among potential collaborators or customers in our markets of interest. At times, competitors 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 trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or trade names. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business may be adversely affected. Our efforts to enforce or protect our proprietary rights related to trademarks, trade names, trade secrets, know-how, domain names, copyrights, or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely affect our business, financial condition, results of operations and prospects.

RISKS RELATED TO GOVERNMENT REGULATION

Even if we receive FDA or other regulatory approval for any of our drug candidates, we will be subject to ongoing regulatory obligations and other conditions that may result in significant additional expense, as well as the potential recall or market withdrawal of an approved product if unanticipated safety issues are discovered.

If the FDA or a comparable foreign regulatory authority approves any of our drug candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion, and recordkeeping for the product will be subject to extensive and ongoing regulatory requirements. These requirements

also include submission of safety and other post-marketing information and reports, establishment registration and listing, as well as continued compliance with cGMPs and GCPs for any clinical trials that we conduct post-approval. Any regulatory approvals that we receive for our drug candidates may also be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or they may contain requirements for potentially costly post-marketing studies and surveillance to monitor the safety and efficacy of the product.

Any failure to comply with regulatory requirements, or any 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, 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;
- clinical trial holds;
- fines, warning letters or other regulatory enforcement action;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us;
- 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 occurrence of any of the foregoing actions could materially and adversely affect our reputation, business, results of operation, and prospects.

We may seek orphan drug designation for certain of our drug candidates, and we may be unsuccessful or unable to maintain the benefits associated with such a designation, including the potential for market exclusivity.

As part of our business strategy, we may seek orphan drug designation for certain of our drug candidates. Regulatory authorities in some jurisdictions, including the United States and Europe, may designate drugs for relatively small patient populations as orphan drugs. Under the U.S. Orphan Drug Act, the FDA may designate a drug as an orphan drug if it is intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals annually in the United States, or a patient population of 200,000 or more in the United States where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the United States. In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user-fee waivers. We have received orphan drug designation from the FDA for REC-4881 for the potential treatment of familial adenomatous polyposis, but we may be unsuccessful with respect to other drug candidates.

Similarly in Europe, the European Commission, upon the recommendation of the EMA's Committee for Orphan Medicinal Products, grants orphan drug designation to promote the development of drugs that are intended for the diagnosis, prevention, or treatment of life-threatening or chronically debilitating conditions affecting not more than 5 in 10,000 persons in Europe and for which no satisfactory method of diagnosis, prevention, or treatment has been authorized (or the product would be a significant benefit to those affected). Additionally, designation is granted for drugs intended for the diagnosis, prevention, or treatment of a life-threatening, seriously debilitating or serious and chronic condition and when, without incentives, it is unlikely that sales of the drug in Europe would be sufficient to justify the necessary investment in developing the drug. In Europe, orphan drug designation entitles a party to financial incentives such as reduction of fees or fee waivers.

Generally, if a drug with an orphan drug designation subsequently receives the first marketing approval for the indication for which it has such designation, the drug is entitled to a period of marketing exclusivity, which precludes the FDA or the EMA from approving another marketing application for the same drug and indication for that time period, except in limited circumstances. The applicable period is seven years in the United States and ten years in

Europe. The European exclusivity period can be reduced to six years if a drug no longer meets the criteria for orphan drug designation or if the drug is sufficiently profitable so that market exclusivity is no longer justified.

Even if we obtain orphan drug exclusivity for a drug, that exclusivity may not effectively protect the drug from competition because different drugs can be approved for the same condition. Even after an orphan drug is approved, the FDA can subsequently approve a different drug for the same condition if the FDA concludes that the later drug is clinically superior in that it is shown to be safer, more effective, or makes a major contribution to patient care. In addition, a designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. Moreover, orphan drug exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition or if another drug with the same active part of the molecule is determined to be safer, more effective, or represents a major contribution to patient care. Orphan drug designation neither shortens the development time or regulatory review time of a drug, nor gives the drug any advantage in the regulatory review or approval process. While we may seek orphan drug designation for our drug candidates, we may never receive such designations. Even if we do receive such designations, there is no guarantee that we will enjoy the benefits of those designations.

Obtaining and maintaining regulatory approval of our drug candidates in one jurisdiction does not mean that we will be successful in obtaining regulatory approval of our drug candidates in other jurisdictions.

We may submit marketing applications in countries other than the United States. Regulatory authorities in jurisdictions outside of the United States have requirements for approval of drug candidates with which we must comply prior to marketing in those jurisdictions. For example, our trials to date have consisted of small patient populations and some international regulatory filings may require larger patient populations or additional nonclinical studies or clinical trials.

Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties, and costs for us and could delay or prevent the introduction of our products in certain countries. If we fail to comply with the regulatory requirements in international markets and/or fail to receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of our drug candidates will be harmed.

Obtaining and maintaining regulatory approval of our drug candidates in one jurisdiction does not guarantee that we will be able to obtain or maintain regulatory approval in any other jurisdiction, although a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. For example, even if the FDA grants marketing approval of a drug candidate, comparable regulatory authorities in foreign jurisdictions must also approve the manufacturing, marketing, and promotion of the drug candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States. These may include additional nonclinical studies and clinical trials, since clinical trials conducted in one jurisdiction may not be accepted by regulatory authorities in other jurisdictions. In short, the foreign regulatory approval process involves all of the risks associated with FDA approval. In many jurisdictions outside the United States, a drug candidate must be approved for reimbursement before it can be approved for sale in that jurisdiction. In some cases, the price that we may intend to charge for our products will also be subject to approval.

As we expand our operations outside the United States, we will be exposed to various risks related to the global regulatory environment.

We have expanded our operations into Canada, and we expect our non-U.S. activities to increase in the future, including the conduct of clinical trials in other countries. If we expand our operations outside of the United States, we must dedicate additional resources to comply with U.S. laws governing activities in other countries, as well as numerous laws and regulations in each jurisdiction in which we plan to operate.

For example, the U.S. Foreign Corrupt Practices Act (FCPA) prohibits any U.S. individual or business from paying, offering, authorizing payment, or offering anything of value, directly or indirectly, to any foreign official, political party, or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates U.S. publicly-traded companies to comply with certain accounting provisions requiring the company to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations. Compliance with the FCPA is expensive and difficult, particularly in countries in which corruption is a recognized problem. In addition, the FCPA presents particular challenges in the pharmaceutical industry, because, in many countries, hospitals are operated by the government, and doctors and other hospital employees are considered foreign officials. Certain payments to hospitals in connection with clinical trials and other work have been deemed to be improper payments to government officials and have led to FCPA enforcement actions.

In addition, U.S. and foreign anti-money laundering, export control, sanctions, and other trade laws and regulations (collectively, Trade Laws) prohibit companies and their employees, agents, CROs, legal counsel, accountants, consultants, contractors, and other partners from authorizing, promising, offering, providing, and soliciting or receiving, directly or indirectly, corrupt or improper payments or anything else of value to or from recipients in the public or private sector. Violations of Trade Laws can result in substantial consequences. We have direct or indirect interactions with officials and employees of governmental agencies or government-affiliated hospitals, universities or other organizations. We plan to engage third parties for clinical trials and/or to obtain necessary permits, licenses, patent registrations, and other regulatory approvals and we can be held liable for the corrupt or other illegal activities of our personnel, agents, or partners, even if we do not explicitly authorize or have prior knowledge of such activities.

Changing, inconsistent, or conflicting laws, rules and regulations governing international business practices, and ambiguities in their interpretation and application, create uncertainty and challenges. The failure to comply with any such laws or regulations may result in substantial civil and criminal penalties and suspension or debarment from government contracting. The SEC also may suspend or bar issuers from trading securities on U.S. exchanges for violations of the FCPA's accounting provisions.

We may seek priority review designation for one or more of our other drug candidates, but we might not receive such designation, and even if we do, such designation may not lead to a faster regulatory review or approval process.

If the FDA determines that a drug candidate offers a treatment for a serious condition and, if approved, the product would provide a significant improvement in safety or effectiveness, the FDA may designate the drug candidate for priority review. A priority review designation means that the goal for the FDA to review an application is six months, rather than the standard review period of 10 months. We may request priority review for our drug candidates from time to time. The FDA has broad discretion with respect to whether or not to grant priority review status to a drug candidate, so even if we believe a particular drug candidate is eligible for such designation or status, the FDA may decide not to grant it. Moreover, a priority review designation does not necessarily result in an expedited regulatory review or approval process or necessarily confer any advantage with respect to approval compared to conventional FDA procedures. Receiving priority review from the FDA does not guarantee approval within the six-month review cycle or at all.

Breakthrough therapy designation and fast track designation by the FDA, even if granted for any of our drug candidates, may not lead to a faster development, regulatory review, or approval process, and each designation does not increase the likelihood that any of our drug candidates will receive marketing approval in the United States.

We may seek a breakthrough therapy designation for some of our drug candidates. A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For drugs that have been designated as breakthrough

therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Drugs designated as breakthrough therapies by the FDA may also be eligible for priority review and accelerated approval. Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe one of our drug candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of a breakthrough therapy designation for a drug candidate may not result in a faster development process, review or approval compared to therapies considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even if one or more of our drug candidates qualify as breakthrough therapies, the FDA may later decide that such drug candidates no longer meet the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

We may seek fast track designation for some of our drug candidates from time to time. If a drug is intended for the treatment of a serious or life-threatening condition and the drug demonstrates the potential to address unmet medical needs for this condition, the drug sponsor may apply for fast track designation. The FDA has broad discretion whether or not to grant this designation, so even if we believe a particular drug candidate is eligible for this designation, we cannot assure you that the FDA would decide to grant it. Even if we do receive fast track designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may withdraw fast track designation if it believes that the designation is no longer supported by data from our clinical development program. Fast track designation alone does not guarantee qualification for the FDA's priority review procedures.

The FDA, EMA, and other regulatory authorities may implement additional regulations or restrictions on the development and commercialization of our drug candidates.

The FDA, EMA, and regulatory authorities in other countries have each expressed interest in further regulating small molecule pharmaceuticals. Agencies at both the federal and state level in the United States, as well as U.S. Congressional committees and other governments or governing agencies, have also expressed interest in further regulating the small molecule pharmaceutical industry. Such action may delay or prevent commercialization of some or all of our drug candidates. Adverse developments in clinical trials of products conducted by others may cause the FDA or other oversight bodies to change the requirements for approval of any of our drug candidates. These regulatory review agencies and committees, and any new requirements or guidelines they promulgate, may lengthen the regulatory review process, require us to perform additional studies or trials, increase our development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of our drug candidates, or lead to significant post-approval limitations or restrictions. As we advance our drug candidates, we will be required to consult with these regulatory agencies and comply with applicable requirements and guidelines. If we fail to do so, we may be required to delay or discontinue development of such drug candidates. These additional processes may result in a review and approval process that is longer than we otherwise would have expected. Delays as a result of an increased or lengthier regulatory approval process, or further restrictions on the development of our drug candidates, can be costly and could negatively impact our ability to complete clinical trials and commercialize our current and future drug candidates in a timely manner, if at all.

Healthcare legislative reform measures may have a material adverse effect on our business and results of operations.

The U.S. and many foreign jurisdictions have enacted or proposed legislative and regulatory changes affecting the healthcare system that could prevent or delay marketing approval of our current or future drug candidates or any future drug candidates, restrict or regulate post-approval activities, and/or affect our ability to profitably sell a product for which we obtain marketing approval. Changes in regulations and statutes, or their interpretation, could impact our business in the future by requiring, for example, (i) changes to our manufacturing arrangements; (ii) additions or modifications to product labeling; (iii) the recall or discontinuation of our products; and (iv) additional record-keeping requirements. If any such changes were to be imposed, they could adversely affect the operation of our business.

Also, in the U.S., there have been and continue to be a number of legislative initiatives to contain healthcare costs. For example, in March 2010, the Affordable Care Act, or the ACA, was passed, which substantially changed the way healthcare is financed by both governmental and private insurers, and significantly impacted the U.S. pharmaceutical industry. The ACA, among other things, (i) subjects biological products to potential competition by lower-cost biosimilars; (ii) addresses a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected; (iii) increases the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program and extends the rebate program to individuals enrolled in Medicaid managed care organizations; (iv) establishes annual fees and taxes on manufacturers of certain branded prescription drugs; and (v) creates a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 70% (as increased pursuant to the Bipartisan Budget Act of 2018) point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D. Since then, the ACA risk adjustment program payment parameters have been updated annually. Members of the U.S. Congress have expressed intent to pass legislation to fundamentally change or repeal parts of the ACA. While Congress has not passed repeal legislation to date, the Tax Cuts and Jobs Act of 2017 repealed, effective January 1, 2019, 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,commonly referred to as the "individual mandate."

There additionally has been increasing legislative and enforcement interest in the U.S. with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. Congressional inquiries and proposed federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs

We expect that additional state and federal healthcare reform measures will be adopted in the future that could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our current or future drug candidates or additional pricing pressures.

Our revenue prospects could be affected by changes in healthcare spending and policy in the U.S. and abroad.

We operate in a highly regulated industry and new laws, regulations, or judicial decisions, or new interpretations of existing laws, regulations or decisions, related to healthcare availability, the method of delivery of, or payment for healthcare products and services could negatively impact our business and results of operations.

There have been, and likely will continue to be, legislative and regulatory proposals at the foreign, federal, and state levels directed at broadening the availability of healthcare and containing or lowering the cost of healthcare. We cannot predict the initiatives that may be adopted in the future, including repeal, replacement, or significant revisions to the ACA. The continuing efforts of the government, insurance companies, managed care organizations, and other payors of healthcare services to contain or reduce costs of healthcare and/or impose price controls may adversely affect:

- the demand for our current or future drug candidates, if we obtain regulatory approval;
- our ability to set a price that we believe is fair for our products;
- our ability to obtain coverage and reimbursement approval for a product;
- our ability to generate revenue and achieve or maintain profitability;
- the level of taxes that we are required to pay; and
- the availability of capital.

Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors, which may adversely affect our business and results of operations.

Our relationships with healthcare providers, other customers, and third-party payors will be subject to applicable anti-kickback, fraud and abuse, and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, exclusion from government healthcare programs, contractual damages, reputational harm, and diminished profits and future earnings.

Although we do not currently have any products on the market, once we begin commercializing our drug candidates, we will be subject to additional healthcare statutory and regulatory requirements and enforcement by the federal government and the states and foreign governments in which we conduct our business. Healthcare providers, physicians, and third-party payors play a primary role in the recommendation and prescription of any drug candidates for which we obtain marketing approval. Our future arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell, and distribute our drug candidates for which we obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations include the following:

- the federal Anti-Kickback Statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under federal and state healthcare programs 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 civil and criminal false claims and civil monetary penalties laws, including the federal False Claims Act imposes criminal and civil penalties, including through civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government claims for payment that are false or fraudulent or making a false statement to avoid, decrease, or conceal an obligation to pay money to the federal government. In addition, the government may assert that a claim including items and services resulting from a violation of the federal Anti-Kickback Statute constitutes a false of fraudulent claim for purposes of the False Claims Act;

- the federal Health Insurance Portability and Accountability Act of 1996 (HIPAA) imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program, or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services; similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;

- the federal physician payment transparency provisions, sometimes referred to as the “Sunshine Act” under the Affordable Care Act, require manufacturers of drugs, devices, biologics and medical supplies that are reimbursable under Medicare, Medicaid, or the Children’s Health Insurance Program to report to the Department of Health and Human Services information related to transfers of value made to licensed physicians (currently defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests of such physicians and their immediate family members. Effective January 1, 2022, these reporting obligations will extend to include transfers of value made to certain non-physician providers such as physician assistants and nurse practitioners;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 (HITECH Act) and its implementing regulations, imposes obligations on certain covered entity healthcare providers, health plans, and healthcare clearinghouses as well as their business associates that perform certain services involving the 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
- analogous state laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers. Some state laws require 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 physicians and other health care providers or marketing expenditures. Further, many state laws governing the privacy and security of health information in certain circumstances differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Efforts to ensure that our future business arrangements with third parties comply with applicable healthcare laws and regulations could involve substantial costs and may require us to undertake or implement additional policies or measures. We may face claims and proceedings by private parties, and claims, investigations and other proceedings by governmental authorities, relating to allegations that our business practices do not comply with statutes, regulations or case law involving applicable fraud and abuse, privacy or data protection, or other healthcare laws and regulations, and it is possible that courts or governmental authorities may conclude that we have not complied with them, or that we may find it necessary or appropriate to settle any such claims or other proceedings. In connection with any such claims, proceedings, or settlements, we may be subject to significant civil, criminal, and administrative penalties, damages, fines, other damages, imprisonment, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If any of the physicians or other providers or entities with whom we expect to do business is found not to be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

We are subject to U.S. and foreign laws regarding privacy, data protection, and data security that could entail substantial compliance costs, while the failure to comply could subject us to significant liability.

Privacy, data protection, and data security have become significant issues in the U.S., Europe, and other jurisdictions where we conduct or may in the future conduct our operations. The regulatory framework for the collection, use, safeguarding, sharing, and transfer of health and other personal information is rapidly evolving worldwide and is likely to remain in flux for the foreseeable future. The scope and interpretation of the laws that are or may be applicable to us are often uncertain, subject to differing interpretations, and may be inconsistent among different jurisdictions.

In the U.S., HIPAA, as amended by the HITECH Act, imposes on covered entities certain requirements relating to the privacy, security, and transmission of individually identifiable health information. The legislation also increased the civil and criminal penalties that may be assessed for violations and gave state attorneys general the authority to file civil actions in federal courts to enforce the HIPAA rules. In addition, for clinical trials conducted in the U.S., any personal information that is collected is further regulated by the Federal Policy for the Protection of Human Subjects. Privacy laws are also being enacted or considered at the state level. These include the California Consumer Privacy Act (CCPA), which creates individual privacy rights for California consumers (as defined in the law) and places increased privacy and security obligations on entities handling personal data of consumers or households, as well as a new California privacy law passed by voters known as the California Privacy Rights Act (CPRA). While there is currently an exception for protected health information subject to HIPAA and clinical trial regulations, the CCPA and/or CPRA may impact our business activities, and there continues to be uncertainty about how these laws will be interpreted and enforced. Other states have passed general privacy legislation that also may impact our business activities, in the future and additional states are evaluating similar legislation.

In the event we enroll subjects in clinical trials in the European Union (EU) or other jurisdictions, or otherwise acquire or process personal data of individuals in those jurisdictions, we may be subject to additional restrictions relating to the collection, use, storage, transfer, and other processing of this data. Clinical trial activities in the European Economic Area (EEA), for example, are governed by the EU General Data Protection Regulation (GDPR). The GDPR, among other things, (i) imposes requirements on companies that process personal data (including consent provisions); (ii) imposes strict rules on the transfer of personal data to countries outside the EU (including the U.S.); (iii) includes significant penalties for non-compliance, including fines of up to 4% of global revenues or 20 million Euros, whichever is greater; (iv) confers a private right of action on data subjects and consumer associations to seek compensation for damages in some situations; and (v) provides that EU member states may make their own further laws and regulations limiting the processing of personal data, including genetic,

biometric, and health data. The exit of the United Kingdom (UK) from the EU, often referred to as Brexit, has created uncertainty concerning data protection regulation in the UK. The European Commission in June 2021 announced a decision of “adequacy” concluding that the UK ensures an equivalent level of data protection to the GDPR. The effect of the decision is that personal data flows from the EEA to the UK are permitted. However, the GDPR and UK data protection laws impose restrictions on cross-border personal data transfers to other jurisdictions determined not to maintain adequate protections for personal data, including the U.S. We may need to take additional steps, such as new contractual negotiations or modifications to our policies or practices relating to cross-border transfers of personal data, to comply with these restrictions. More generally, laws and regulations governing privacy and data protection exist in many other countries around the world, and these laws (which are evolving and expanding) create complicated and potentially inconsistent obligations that may impact our business.

The increasing number, complexity, and potential inconsistency of current and future laws and regulations relating to privacy, data protection, and data security in the U.S. and other countries make our compliance obligations more difficult and costly. This is particularly true with respect to healthcare data or other personal information acquired as a result of our research activities and clinical trials. If we fail to comply with applicable laws and regulations or experience a breach of security that results in unauthorized disclosure of personal information – or if a third party with whom we share personal information or who processes such information for us fails to comply with applicable requirements or experiences a leak – it could lead to government investigations and enforcement actions, as well as civil claims and litigation against us. We could incur substantial costs to defend against any such claims or proceedings and may also be held liable for significant fines, penalties, and monetary judgments. Any of the foregoing could have a material adverse effect on our business, results of operations, and reputation.

Our employees, independent contractors, consultants, and vendors may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements and insider trading laws, which could cause significant liability for us and harm our reputation.

We are exposed to the risk of fraud or other misconduct by our employees, independent contractors, CROs, consultants, and vendors. Misconduct by these parties could include intentional, reckless, and/or negligent conduct that causes us to fail to comply with FDA regulations or similar regulations of comparable foreign regulatory authorities, provide accurate information to the FDA or comparable foreign regulatory authorities, comply with manufacturing standards, comply with federal and state healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable foreign regulatory authorities, report financial information or data accurately, or disclose unauthorized activities to us. 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. This could include violations of HIPAA, other U.S. federal and state law, and requirements of non-U.S. jurisdictions, including the European Union Data Protection Directive. We are also exposed to risks in connection with any insider trading violations by employees or others affiliated with us, including inadvertent violations such as a sale of pledged shares by a lender when the pledgor is in possession of material nonpublic information.

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 be in compliance with such laws, standards, regulations, guidance, or codes of conduct. Additionally, we are subject to the risk that a person could allege such fraud or other misconduct, even if none occurred and our employees may, from time to time, bring lawsuits against us for employment issues, including injury, discrimination, wage and hour disputes, sexual harassment, hostile work environment, or other employment issues. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

RISKS RELATING TO EMPLOYEE MATTERS AND MANAGING GROWTH

Our future success depends on our ability to retain key executives and experienced scientists, and to attract, retain, and motivate qualified personnel.

We are highly dependent on the research and development, clinical, and business development expertise of Christopher Gibson, our Chief Executive Officer; Tina Marriott Larson, our Chief Operating Officer and President; Michael Secora, our Chief Financial Officer; Shafique Virani, our Chief Corporate Development Officer; and Ramona Doyle, our Chief Medical Officer; as well as the other principal members of our management, scientific, technological, and clinical teams. Although we have entered into employment agreements with our executive officers, each of them may terminate their employment with us at any time or may not be able to perform the services we need in the future. We do not maintain “key person” insurance for any of our executives or other employees.

Recruiting and retaining qualified scientific, clinical, manufacturing, and sales and marketing personnel is also critical to our success. For example, we rely on our employees to help operate and repair our robots, and on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategies.

The loss of the services of our executive officers or other key employees or consultants could impede our ability to successfully implement our business strategy. Replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully develop, gain regulatory approval of, and commercialize drug products, and the competition among numerous pharmaceutical and biotechnology companies for similar personnel. In addition, our consultants and advisors may have commitments under consulting or advisory contracts with other entities that may limit their availability to us. We may also experience difficulties recruiting scientific and clinical personnel from universities and research institutions. If one or more of our clinical trials are unsuccessful, it may become more challenging to recruit and retain qualified scientific personnel.

We are headquartered in Salt Lake City, Utah and also have operations in several other areas. Some of the employees we may want to hire in the future may not reside in any of these areas and may not want to relocate. In addition, many of the other pharmaceutical companies that we compete against for qualified personnel have greater financial and other resources, different risk profiles, and a longer history in the industry than we do. They also may provide more diverse opportunities and better chances for career advancement.

If we are unable to hire, retain, and motivate highly qualified senior executives and personnel, the rate and success with which we can discover and develop drug candidates, our ability to pursue our growth strategy, and our business may be adversely impacted.

We expect to expand our development and regulatory capabilities and potentially implement sales, marketing, and distribution capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We expect to experience significant growth in the number of employees and the scope of our operations, particularly in the areas of product development, regulatory affairs and, if any of our drug candidates receive marketing approval, in sales, marketing, and distribution. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational, and financial systems; expand our facilities; and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

We may acquire additional businesses or products, form strategic alliances, or create joint ventures with third parties that we believe will complement or augment our existing business. If we acquire businesses with promising markets or technologies, we may not be able to realize the benefit of acquiring such businesses if we are unable to successfully integrate them with our existing operations and company culture. We may encounter numerous difficulties in developing, manufacturing, and marketing any new products resulting from a strategic alliance or acquisition that delay or prevent us from realizing their expected benefits or enhancing our business. We cannot assure you that, following any such acquisition, we will achieve the expected synergies to justify the transaction.

RISKS RELATED TO THE SECURITIES MARKETS AND OWNERSHIP OF OUR CLASS A COMMON STOCK

The dual-class structure of our common stock affects the concentration of voting power, which limits our Class A common stockholders' ability to influence the outcome of matters submitted to our stockholders for approval, including the election of our board of directors, the adoption of amendments to our certificate of incorporation and bylaws, and the approval of any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction.

Our Class A common stock offered in our initial public offering has one vote per share, and our Class B common stock has 10 votes per share. As of September 30, 2021, there were 159,167,076 shares of our Class A common stock and 9,467,883 shares of our Class B common stock outstanding. As of that date, Dr. Gibson, our CEO and a member of our board of directors, and his affiliate held no shares of our Class A common stock and all of the issued and outstanding shares of our Class B common stock, representing approximately 37% of the voting power of our outstanding capital stock, which voting power may increase over time as Dr. Gibson exercises or vests in equity awards outstanding as of September 30, 2021. If all such equity awards held by Dr. Gibson had been exercised or vested and exchanged for shares of Class B common stock as of September 30, 2021, Dr. Gibson and his affiliate would hold 41% of the voting power of our outstanding capital stock.

As a result, Dr. Gibson will be able to significantly influence any action requiring the approval of our stockholders, including the election of our board of directors, the adoption of amendments to our certificate of incorporation and bylaws, and the approval of any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction. Dr. Gibson may have interests that differ from our Class A common stockholders and may vote in a way with which our Class A stockholders disagree with and which may be adverse to our Class A stockholders' interests. The concentrated control may have the effect of delaying, preventing, or deterring a change in control of our company, could deprive our stockholders of an opportunity to receive a premium for their capital stock as part of a sale in our company, and, thus, may affect the market price of our Class A common stock.

Future transfers by the holders of Class B common stock will generally result in those shares automatically converting into shares of Class A common stock, subject to limited exceptions, such as certain transfers for estate planning. Transfers or exchanges of shares of Class B common stock may result in the issuance of additional shares of Class A common stock and such issuances will be dilutive to holders of our Class A common stock. In addition, each share of Class B common stock will convert automatically into one share of Class A common stock upon the earliest of (i) April 16, 2028; (ii) the date specified by written consent or agreement of the holders of 66 2⁄3% of our then outstanding shares of Class B common Stock; (iii) nine months after Dr. Gibson ceases to hold any positions as an officer or director of the Company; or (iv) nine months after the death or disability of Dr. Gibson. We refer to the date on which such final conversion of all outstanding shares of Class B common stock pursuant to the terms of amended and restated certificate of incorporation occurs as the Final Conversion Date.

During the second quarter of 2021, Dr. Gibson established personal stock trading plans in accordance with Securities Exchange Act Rule 10b5-1 and Recursion's Insider Trading Policy. Under the plans, all
outstanding stock options may be exercised and we anticipate shares representing up to approximately
4% of Dr. Gibson's holdings may be sold or transferred to donor-advised philanthropic funds. We

anticipate the Rule 10b5-1 transactions may take place over the next 13 months. Any such transactions will be disclosed through public filings as required by the SEC.

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

As of September 30, 2021, our executive officers, directors, holders of 5% or more of our capital stock, and their respective affiliates, including Dr. Gibson and his affiliate, beneficially owned shares representing approximately 62% of our voting power. These stockholders, acting together, may be able to impact matters requiring stockholder approval, including the elections of directors; amendments of our organizational documents; and approval of any merger, sale of all or substantially all of our assets, or other major corporate transaction. This concentrated control may also have the effect of deterring, delaying, or preventing unsolicited acquisition proposals or offers for our capital stock that other stockholders may feel are in their best interest. The interests of this group of stockholders may not always coincide with each other's interests or the interests of other stockholders, and they may act in a manner that advances their best interests and not necessarily those of other stockholders, including seeking a premium value for their common stock, and might affect the market price for our common stock.

We are an "emerging growth company" as defined in the JOBS Act and eligible for exemptions from certain disclosure requirements, which could make our Class A common stock less attractive to investors.

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012 (the JOBS Act). We will remain an emerging growth company until the earlier of (1) December 31, 2026; (2) December 31 of the year in which we (a) become a "large accelerated filer" as defined under SEC rules; or (b) have total annual gross revenues of $1.07 billion or more; or (3) the date on which we have issued more than $1 billion in nonconvertible debt over a three-year period. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies. These exemptions include:

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002 (Section 404);
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- providing only two years of audited financial statements in addition to any required unaudited interim financial statements and a correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- reduced disclosure obligations regarding executive compensation; and
- not being required to hold a nonbinding stockholder advisory vote on executive compensation or on approval of any golden parachute payments not previously approved.

Accordingly, our independent registered public accounting firm will not be required to provide an attestation report on the effectiveness of our internal control over financial reporting so long as we qualify as an emerging growth company, which may increase the risk that material weaknesses or significant deficiencies in our internal control over financial reporting go undetected. Likewise, we may elect not to provide certain information, including certain financial information and certain information regarding compensation of our executive officers, that we would otherwise have been required to provide in filings we make with the SEC, which may make it more difficult for investors and securities analysts to evaluate our company.

The JOBS Act further provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised U.S. generally accepted accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply

to private companies. We have elected to use the extended transition period for new or revised accounting standards during the period in which we remain an emerging growth company; however, we may adopt certain new or revised accounting standards early. As a result, changes in rules of U.S. GAAP or their interpretation, the adoption of new guidance, or the application of existing guidance to changes in our business could significantly affect our financial position and results of operations. If some of our Class A common stockholders find our common stock less attractive because we may rely on these exemptions, there may be a less active trading market for our common stock, and our stock price may be more volatile and may decline.

The price of our Class A common stock may be volatile and fluctuate substantially, which could result in substantial losses for holders of our common stock.

The trading price of our Class A common stock has been volatile since our initial public offering and it is likely that the price will fluctuate substantially in the future. The stock price may be influenced by many factors, a number of which are beyond our control, which factors include:

- the success of competitive products or technologies;
- results of clinical trials of our drug candidates or those of our competitors;
- regulatory or legal developments in the United States and other countries;
- developments or disputes concerning patent applications, issued patents, or other proprietary rights;
- the recruitment or departure of key personnel;
- the level of expenses related to any of our drug candidates or clinical development programs;
- the results of our efforts to discover, develop, acquire, or in-license additional drug candidates or products;
- actual or anticipated changes in estimates as to financial results, development timelines, or recommendations by securities analysts;
- variations in our financial results or those of companies that are perceived to be similar to us;
- changes in the structure of healthcare payment systems;
- performance of the overall stock market and shares of biotechnology companies in particular, as well as general economic conditions; and
- the other factors described in this “Risk Factors” section.

As a result of this volatility, holders of our Class A common stock may not be able to sell their stock at or above the price they originally paid for it, which could result in the loss of a part or all of their investment.

Sales of a substantial number of shares of our Class A common stock in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our Class A common stock in the public market could occur at any time. These sales, or the perception in the market that one or more holders of a large number of shares intend to sell their shares, could cause the market price of our Class A common stock to decline.

As of September 30, 2021, we had 159,167,076 shares of our Class A common stock and 9,467,883 shares of our Class B common stock outstanding. As of the date of this Quarterly Report on Form 10-Q, all of these shares could be freely sold in the public market, except that 39.4% of these shares are held by directors, executive officers, and other affiliates and therefore are subject to certain limitations under Rule 144 under the Securities Act of 1933, as amended (the Securities Act).

Approximately 1,626,250 shares of our Class B common stock that are beneficially owned by Dr. Gibson have been pledged to secure his obligations under a line of credit with UBS Credit Corp. (UBS). If he defaults on his repayment obligations under the line of credit, UBS or any designee of UBS may exercise its rights to sell shares pledged to cover the amount due thereunder.

As of September 30, 2021, 39,818,210 shares of Class A common stock that are either subject to outstanding options and warrants or reserved for future issuance under our equity compensation plans are eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules and Rule 144 and Rule 701 under the Securities Act.

Also as of September 30, 2021, the holders of approximately 135,870,793 shares of our Class A common stock issued and issuable upon conversion of Class B common stock are entitled to rights with respect to the registration of their shares under the Securities Act. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares purchased by affiliates.

In the future we may also issue our securities in connection with any financings, investments, or acquisitions, and the number of shares issued could constitute a material portion of our then-outstanding common stock.

The sale of a significant number of shares of our Class A common stock under any of the above circumstances, or otherwise, in the public market at any time, or the perception that they may be sold, could have a material adverse effect on the market price of our Class A common stock. In that event, holders of our Class A common stock may not be able to sell their stock at or above the price they originally paid for it, which could result in the loss of part or all of their investment.

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

As a public company, and particularly after we are no longer an “emerging growth company,” we will incur significant legal, accounting, and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act of 2002 and rules subsequently implemented by the SEC and the Nasdaq Stock Market have imposed various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance.

Pursuant to Section 404, we will be required to furnish a report by our management on our internal control over financial reporting, including an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. However, while we remain an emerging growth company, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. 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, potentially 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. Despite our efforts, there is a risk that neither we nor our independent registered public accounting firm will be able to conclude within the prescribed timeframe that our internal control over financial reporting is effective as required by Section 404. This could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements. In addition, if we are not able to continue to meet these requirements, we may not be able to remain listed on the Nasdaq Stock Market.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws and Delaware law might discourage, delay, or prevent a change in control of our company or changes in our management and, therefore, depress the market prices of our Class A common stock.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could depress the market prices of our Class A common stock by acting to discourage, delay or prevent a change in control of our company or changes in our management that the stockholders of our company may deem advantageous. These provisions, among other things:

- 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;
- authorize the issuance of "blank check" preferred stock that our board could use to implement a stockholder rights plan (also known as a "poison pill");
- 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;
- authorize our board of directors to amend the bylaws;
- 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; and
- require a super-majority vote of stockholders to amend some provisions described above.

In addition, Section 203 of the General Corporation Law of the State of Delaware prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder, generally a person which together with its affiliates owns, or within the last three years has owned, 15% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner.

Any provision of our amended and restated certificate of incorporation, amended and restated bylaws, or Delaware law that has the effect of delaying or preventing a change in control could limit the opportunity for our stockholders to receive a premium for their shares of Class A common stock and could also affect the price that some investors are willing to pay for our stock.

Our actual operating results may differ significantly from any guidance that we provide.

From time to time, we may provide guidance in our quarterly earnings releases, or otherwise, regarding our future performance that represents our management's estimates as of the date of release. This guidance, which would include forward-looking statements, would be based on projections prepared by our management. Neither our registered public accountants nor any other independent expert or outside party would compile or examine the projections. Accordingly, no such person would express any opinion or any other form of assurance with respect to the projections.

Projections are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic, and competitive uncertainties and contingencies, many of which are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. The principal reason that we would release guidance is to provide a basis for our management to discuss our business outlook with analysts and investors. We do not accept any responsibility for any projections or reports published by any such third parties.

Guidance is necessarily speculative in nature, and it can be expected that some or all of the assumptions underlying any guidance furnished by us will not materialize or will vary significantly from actual results. Accordingly, our guidance would be only an estimate of what management believes is realizable as of the date of release. Actual results may vary from our guidance and the variations may be material.

As a public company, we are obligated to develop and maintain proper and effective internal controls over financial reporting. Any failure to maintain the adequacy of these internal controls may adversely affect investor confidence in our company and, as a result, the value of our Class A common stock.

Our chief financial officer has only been the chief financial officer of a publicly traded company since our initial public offering and our chief executive officer has only been the chief executive officer of a publicly traded company since our initial public offering. Neither has been involved in the long term operations of a public company. Pursuant to Section 404 of the Sarbanes-Oxley Act, we will be required to furnish a report by our management on our internal control over financial reporting beginning with our second filing of an Annual Report on Form 10-K with the SEC. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. However, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal control over financial reporting until our first annual report required to be filed with the SEC following the date we are no longer an emerging growth company. At such time as we are required to obtain auditor attestation, if we then have a material weakness, we would receive an adverse opinion regarding our internal control over financial reporting from our independent registered accounting firm.

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, including through hiring additional financial and accounting personnel, potentially 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. During our evaluation of our internal control, if we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal control over financial reporting is effective. We cannot assure you that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future.

Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition, or results of operations. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, the market price of shares of our Class A common stock could decline, and we could be subject to sanctions or investigations by the Nasdaq Stock 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.

GENERAL RISKS

Unfavorable global economic conditions could adversely affect our business.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. For example, the ongoing COVID-19 pandemic has caused significant volatility and uncertainty in U.S. and international markets. Uncertainty in the U.S. regarding the federal government’s debt ceiling and related budgetary matters may also cause volatility and uncertainty in the global markets. A severe or prolonged economic downturn could result in a variety of risks to our business, including weakened demand for our drug candidates and impaired ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy could also strain our suppliers or result in supply disruption. Any of the foregoing

could harm our business and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business.

We are subject to the risks of litigation that may arise in the ordinary course of our business, which could be costly and time-consuming to pursue or defend.

We periodically are, and in the future may be, involved in legal proceedings or claims that arise in the ordinary course of business, such as those regarding commercial or contractual disputes, intellectual property rights, employment matters, product liability, or data privacy.

As a public company, we and our directors and officers are also subject to potential securities class action litigation, particularly if the market price of our Class A common stock is volatile. The stock market in general, and Nasdaq-listed and biotechnology companies in particular, experience significant price and volume fluctuations from time to time that often are 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 lawsuits, and we may be the target of such litigation in the future.

Litigation, whether with or without merit, may be expensive to pursue or defend; divert management's attention; result in adverse judgments for damages, injunctive relief, penalties, and fines; and harm our business and reputation. Some third parties may be able to sustain the costs of litigation more effectively than we can because they have substantially greater resources. Insurance may not cover all claims or may cover only a portion of our expenses and losses, and may not continue to be available on terms acceptable to us.

If securities analysts do not publish research or reports about our business or if they publish negative evaluations of our stock, the price of our stock could decline.

The trading market for our Class A common stock relies, in part, on the research and reports that industry or financial analysts publish about us or our business. If only a small number of analysts maintain coverage of us, the trading price of our stock would likely decrease. If an analyst covering our stock downgrade their evaluations of our stock, the price of our stock could decline. If one or more of these analysts cease to cover our stock, we could lose visibility in the market for our stock, which in turn could cause our stock price to decline.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

(a) Sales of Unregistered Securities

None.

(b) Use of Proceeds from Public Offering of Class A Common Stock

On April 15, 2021, the Registration Statements on Form S-1 (File No. 333-254576) for the initial public offering of our Class A common stock was declared effective by the SEC. Shares of our Class A common stock began trading on the Nasdaq Global Market on April 16, 2021. The offering closed on April 20, 2021.

The underwriters of our IPO were Goldman Sachs & Co. LLC, J.P. Morgan, BofA Securities, SVB Leerink, Allen & Company LLC and KeyBanc Capital Markets.

We paid the underwriters of our IPO an underwriting discount totaling approximately $35.1 million. In addition, we incurred expenses of approximately $4.3 million which, when added to the underwriting discount, amount to total expenses of approximately $39.5 million. Thus, the net offering proceeds, after deducting underwriting discounts and offering expenses, were approximately $462.4 million. No offering expenses were paid directly or indirectly to any of our directors or officers (or their associates) or persons owning 10.0% or more of any class of our equity securities or to any other affiliates.

We are holding a significant portion of the balance of the net proceeds in bank deposits held in checking accounts and an investment portfolio. There has been no material change in the planned use of proceeds from our IPO from those that were described in the final prospectus filed pursuant to Rule 424(b) under the Securities Act and other periodic reports previously filed with the SEC.

(c) Issuer Purchases of Equity Securities

None.

Item 6. Exhibits.

Exhibit Index:

		Incorporated by Reference				
Exhibit number	**Description**	**Form**	**File No.**	**Exhibit No.**	**Filing Date**	**Filed / Furnished Herewith**
3.1	Amended and Restated Certificate of Incorporation of Recursion Pharmaceuticals, Inc.	8-K	001-40323	3.1	April 21, 2021	
3.2	Amended and Restated Bylaws of Recursion Pharmaceuticals, Inc.	8-K	001-40323	3.2	April 21, 2021	
4.1	Amended and Restated Investors' Rights Agreement by and among the Registrant and certain of its stockholders, dated September 1, 2020.	S-1/A	333-254576	4.1	April 15, 2021	
4.2	Specimen Class A common stock certificate of the Registrant.	S-1/A	333-254576	4.2	April 15, 2021	
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 and 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	XBRL Instance Document					X
101.SCH	XBRL Taxonomy Extension Schema Document					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document					X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document					X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document					X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document					X
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)					X

* The certifications furnished in Exhibit 32.1 hereto are deemed to accompany this Quarterly Report on Form 10-Q and will not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended. Such certifications will not be deemed to be incorporated by reference into any filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent that the Registrant specifically incorporates it by reference.

\+ Indicates a management contract or compensatory plan.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized on November 10, 2021.

RECURSION PHARMACEUTICALS, INC.

By: /s/ Christopher Gibson
Christopher Gibson
Chief Executive Officer
(Principal Executive Officer)

By: /s/ Michael Secora
Michael Secora
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 31.1

Certification of Principal Executive Officer
Pursuant to Rules 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended

I, Christopher Gibson, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Recursion Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Christopher Gibson
Christopher Gibson, Chief Executive Officer (principal executive officer)

Date: November 10, 2021

Exhibit 31.2

Certification of Principal Financial Officer
Pursuant to Rules 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended

I, Michael Secora, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Recursion Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Michael Secora
Michael Secora, Chief Financial Officer (principal financial officer)

Date: November 10, 2021

Exhibit 32.1

Certifications of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Quarterly Report of Recursion Pharmaceuticals, Inc. (the "Company") on Form 10-Q for the period ended September 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), The undersigned certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Christopher Gibson
Christopher Gibson, Chief Executive Officer (principal executive officer)

/s/ Michael Secora
Michael Secora, Chief Financial Officer (principal financial officer)

Date: November 10, 2021