UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

☒ **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 001-39208

Beam Therapeutics Inc.

(Exact name of Registrant as specified in its Charter)

Delaware	**81-5238376**
(*State or other jurisdiction of incorporation or organization*)	(*I.R.S. Employer Identification No.*)
26 Landsdowne Street Cambridge, MA	**02139**
(*Address of principal executive offices*)	(*Zip Code*)

Registrant's telephone number, including area code: (857) 327-8775

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01 per share	**BEAM**	**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 ☒ NO ☐

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

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

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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

The number of shares of registrant's common stock outstanding as of November 1, 2021 was 68,135,798.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Such forward-looking statements reflect, among other things:

- our current expectations and anticipated results of operations;
- our expectations regarding the initiation, timing, progress and results of our research and development programs and preclinical studies, including our expectation that we will nominate our first development candidate for *in vivo* base editing in the liver using lipid nanoparticle, or LNP, delivery for the treatment of patients of Glycogen Storage Disease Type IA (R83C mutation) by the end of 2021, and of our clinical trials, including our Phase 1/2 clinical trial designed to assess the safety and efficacy of BEAM-101 for the treatment of sickle cell disease, which we refer to as our BEACON-101 trial;
- our ability to develop a sustainable portfolio;
- our ability to develop life-long, curative, precision genetic medicines for patients through base editing;
- our ability to create a hub for partnering with other companies;
- our plans for pre-clinical studies for product candidates in our pipeline;
- our ability to advance any product candidates that we may develop and successfully complete any clinical studies, including the manufacture of any such product candidates;
- our ability to pursue a broad suite of clinically validated delivery modalities;
- our expectations regarding our ability to generate additional novel LNPs that we believe could accelerate novel nonviral delivery of gene editing payloads to tissues beyond the liver and our ability to expand the reach of gene editing, including as a result of our acquisition of Guide Therapeutics, Inc., or Guide;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates and technology;
- developments related to our competitors and our industry;
- the expected timing, progress and success of our collaborations with third parties, including any future payments we may receive under our collaboration and license agreements, and our ability to identify and enter into future license agreements and collaborations;
- developments related to base editing technologies;
- our ability to successfully develop our three distinct pipelines and obtain and maintain approval for our product candidates;
- our ability to successfully establish and maintain a commercial-scale current Good Manufacturing Practice, or cGMP, manufacturing facility and that this facility will be operational in the first quarter of 2023;
- regulatory developments in the United States and foreign countries;
- our ability to attract and retain key scientific and management personnel;
- our expectations regarding the strategic and other potential benefits of our acquisition of Guide, and
- the impact of the coronavirus disease of 2019, or COVID-19, pandemic on our business.

All of these statements are subject to known and unknown important risks, uncertainties and other factors that may cause our actual results, performance or achievements, market trends, or industry results to differ materially from those expressed or implied by such forward-looking statements. Therefore, any statements contained herein that are not statements of historical fact may be forward-looking statements and should be evaluated as such. Without limiting the foregoing, the words “anticipate,” “expect,” “suggest,” “plan,” “believe,” “intend,” “project,” “forecast,” “estimates,” “targets,” “projections,” “should,” “could,” “would,” “may,” “might,” “will,” and the negative thereof and similar words and expressions are intended to identify forward-looking statements. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in “Risk Factors” in Part II, Item 1A of this report and “Risk Factors Summary” and “Risk Factors” in Part I, Item 1A. of our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, or the 2020 Form 10-K. Unless legally required, we assume no obligation to update any such forward-looking information to reflect actual results or changes in the factors affecting such forward-looking information.

When we use the terms “Beam,” the “Company,” “we,” “us” or “our” in this Quarterly Report on Form 10-Q, we mean Beam Therapeutics Inc. and its subsidiaries on a consolidated basis, unless the context indicates otherwise.

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements (Unaudited)

Beam Therapeutics 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	$ 612,023	$ 162,171
Marketable securities	321,382	137,500
Prepaid expenses and other current assets	8,019	8,650
Total current assets	941,424	308,321
Property and equipment, net	71,533	38,513
Restricted cash	14,840	14,840
Operating lease right-of-use assets	103,169	86,859
Long-term investments	24,538	2,577
Other assets	1,051	567
Total assets	$ 1,156,555	$ 451,677
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 7,282	$ 6,314
Accrued expenses and other current liabilities	22,965	18,463
Derivative liabilities	49,600	71,200
Current portion of deferred revenue	12,822	24
Current portion of lease liability	6,484	4,218
Current portion of equipment financing liability	2,238	2,118
Total current liabilities	101,391	102,337
Long-term lease liability	133,120	96,014
Long-term equipment financing liability	3,598	5,294
Contingent consideration liabilities	26,960	—
Long-term portion of deferred revenue	36,820	394
Other liabilities	852	2,077
Total liabilities	302,741	206,116
Commitments and contingencies (See Note 7, *Leases*, Note 9, *License agreements* and Note 10, *Collaboration and license agreements*)		
Stockholders' equity:		
Preferred stock, $0.01 par value; 25,000,000 shares authorized, and no shares issued or outstanding at September 30, 2021 and December 31, 2020, respectively	—	—
Common stock, $0.01 par value; 250,000,000 shares authorized, 68,126,713 and 58,446,016 issued, and 67,734,484 and 57,254,178 outstanding at September 30, 2021 and December 31, 2020, respectively	677	573
Additional paid-in capital	1,556,685	642,633
Accumulated other comprehensive income (loss)	19	(9)
Accumulated deficit	(703,567)	(397,636)
Total stockholders' equity	853,814	245,561
Total liabilities and stockholders' equity	$ 1,156,555	$ 451,677

The accompanying notes are an integral part of these condensed consolidated financial statements.

Beam Therapeutics Inc.
Condensed Consolidated Statements of Operations and Other Comprehensive Loss
(*Unaudited*)
(in thousands, except share and per share amounts)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
License and collaboration revenue	$ 763	$ 6	$ 775	$ 18
Operating expenses:				
Research and development	54,623	29,825	290,306	70,728
General and administrative	15,774	7,502	39,450	21,251
Total operating expenses	70,397	37,327	329,756	91,979
Loss from operations	(69,634)	(37,321)	(328,981)	(91,961)
Other income (expense):				
Change in fair value of derivative liabilities	35,800	2,700	(8,400)	(8,700)
Change in fair value of long-term investments	(4,892)	—	21,960	517
Change in fair value of contingent consideration liabilities	10,599	—	9,553	—
Interest and other income (expense), net	9	169	(63)	1,016
Total other income (expense)	41,516	2,869	23,050	(7,167)
Net loss	$ (28,118)	$ (34,452)	$ (305,931)	$ (99,128)
Unrealized gain (loss) on marketable securities	(12)	(132)	28	25
Comprehensive loss	$ (28,130)	$ (34,584)	$ (305,903)	$ (99,103)
Reconciliation of net loss to net loss attributable to common stockholders:				
Net loss	$ (28,118)	$ (34,452)	$ (305,931)	$ (99,128)
Accretion of redeemable convertible preferred stock to redemption value, including dividends on preferred stock	—	—	—	(1,277)
Net loss attributable to common stockholders	$ (28,118)	$ (34,452)	$ (305,931)	$ (100,405)
Net loss per common share attributable to common stockholders, basic and diluted	$ (0.42)	$ (0.69)	$ (4.86)	$ (2.31)
Weighted-average common shares used in net loss per share attributable to common stockholders, basic and diluted	66,377,611	50,087,747	62,960,219	43,438,919

The accompanying notes are an integral part of these condensed consolidated financial statements.

Beam Therapeutics Inc.
Condensed Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' (Deficit) Equity
(*Unaudited*)
(in thousands, except share amounts)

	Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' (Deficit) Equity
	Shares	Amount	Shares	Amount				
Balance at December 31, 2019	130,616,784	$ 302,049	7,326,185	$ 73	$ 1,851	$ 16	$ (203,044)	$ (201,104)
Accretion of redeemable convertible preferred stock to redemption value	—	1,277	—	—	(1,277)	—	—	(1,277)
Conversion of redeemable convertible preferred stock to common stock upon closing of initial public offering	(130,616,784)	(303,326)	29,127,523	291	303,035	—	—	303,326
Issuance of common stock from initial public offering, net of issuance costs of $18.7 million	—	—	12,176,471	122	188,201	—	—	188,323
Vesting of restricted common stock	—	—	387,866	4	(4)	—	—	—
Stock-based compensation	—	—	—	—	2,792	—	—	2,792
Exercise of common stock options	—	—	59,305	1	151	—	—	152
Other comprehensive income (loss)	—	—	—	—	—	(360)	—	(360)
Net loss	—	—	—	—	—	—	(30,458)	(30,458)
Balance at March 31, 2020	—	$ —	49,077,350	$ 491	$ 494,749	$ (344)	$ (233,502)	$ 261,394
Vesting of restricted common stock	—	—	387,870	4	(4)	—	—	—
Stock-based compensation	—	—	—	—	2,769	—	—	2,769
Exercise of common stock options	—	—	180,517	1	359	—	—	360
Other comprehensive income (loss)	—	—	—	—	—	517	—	517
Net loss	—	—	—	—	—	—	(34,218)	(34,218)
Balance at June 30, 2020	—	$ —	49,645,737	$ 496	$ 497,873	$ 173	$ (267,720)	$ 230,822
Vesting of restricted common stock	—	—	387,867	4	(4)	—	—	—
Issuance of common stock related to license agreement	—	—	175,000	2	262	—	—	264
Stock-based compensation	—	—	—	—	3,012	—	—	3,012
Exercise of common stock options	—	—	230,136	2	555	—	—	557
Other comprehensive income (loss)	—	—	—	—	—	(132)	—	(132)
Net loss	—	—	—	—	—	—	(34,452)	(34,452)
Balance at September 30, 2020	—	$ —	50,438,740	$ 504	$ 501,698	$ 41	$ (302,172)	$ 200,071

Beam Therapeutics Inc.
Condensed Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' (Deficit) Equity - Continued
(*Unaudited*)
(in thousands, except share amounts)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance at December 31, 2020	57,254,178	$ 573	$ 642,633	$ (9)	$ (397,636)	$ 245,561
Issuance of common stock from private placement, net of issuance costs of $8.0 million	2,795,700	28	251,977	—	—	252,005
Issuance of common stock to acquire Guide	1,087,153	10	120,022	—	—	120,032
Vesting of restricted common stock	398,804	4	(4)	—	—	—
Stock-based compensation	—	—	4,648	—	—	4,648
Exercise of common stock options	199,284	2	1,756	—	—	1,758
Other comprehensive income (loss)	—	—	—	(15)	—	(15)
Net loss	—	—	—	—	(201,560)	(201,560)
Balance at March 31, 2021	61,735,119	$ 617	$ 1,021,032	$ (24)	$ (599,196)	$ 422,429
Issuance of common stock from At-the-Market offering, net of issuance costs of $5.5 million	1,761,285	$ 18	$ 157,767			157,785
Vesting of restricted common stock	200,403	2	(2)	—	—	—
Issuance of common stock for success payment liability	349,650	4	29,996			30,000
Stock-based compensation	—	—	10,452	—	—	10,452
Exercise of common stock options	406,225	4	4,079	—	—	4,083
Other comprehensive income (loss)	—	—	—	55	—	55
Net loss	—	—	—	—	(76,253)	(76,253)
Balance at June 30, 2021	64,452,682	$ 645	$ 1,223,324	$ 31	$ (675,449)	$ 548,551
Issuance of common stock from At-the-Market offering, net of issuance costs of $8.6 million	2,912,557	$ 29	$ 318,580	$ —	$ —	318,609
Vesting of restricted common stock	200,402	2	(2)	—	—	—
Issuance of common stock for success payment liability	—	—	—	—	—	—
Stock-based compensation	—	—	12,968	—	—	12,968
Exercise of common stock options	168,843	1	1,815	—	—	1,816
Other comprehensive income (loss)	—	—	—	(12)	—	(12)
Net loss	—	—	—	—	(28,118)	(28,118)
Balance at September 30, 2021	67,734,484	$ 677	$ 1,556,685	$ 19	$ (703,567)	$ 853,814

The accompanying notes are an integral part of these condensed consolidated financial statements.

Beam Therapeutics Inc.
Condensed Consolidated Statements of Cash Flows
(*Unaudited*)
(in thousands)

	Nine Months Ended September 30,	
	2021	**2020**
Operating activities		
Net loss	$ (305,931)	$ (99,128)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	4,817	3,463
Amortization of investment discount (premiums)	(28)	49
In-process research and development charge	154,953	—
Stock-based compensation expense	28,068	8,573
Change in operating lease right-of-use assets	6,781	3,065
Non-cash research and development license expense, net	—	5,164
Change in fair value of derivative liabilities	8,400	8,700
Change in fair value of contingent consideration liabilities	(9,553)	—
Change in fair value of non-controlling equity investments	(21,960)	(517)
Other	63	—
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	733	(3,667)
Other long-term assets	(197)	(56)
Accounts payable	(1,341)	(134)
Accrued expenses and other liabilities	2,818	4,219
Operating lease liabilities	15,208	(3,249)
Deferred revenue	49,224	—
Other long-term liabilities	(153)	2,075
Net cash used in operating activities	(68,098)	(71,443)
Investing activities		
Purchases of property and equipment	(33,442)	(8,232)
Purchases of marketable securities	(606,746)	(167,094)
Maturities of marketable securities	422,920	157,380
Net cash acquired from Guide	620	—
Purchase of long-term investment	—	(750)
Net cash used in investing activities	(216,648)	(18,696)
Financing activities		
Proceeds from initial public offering, net of underwriting discount	—	192,510
Proceeds from issuance of common shares, net of commissions	737,205	—
Payment of equity offering costs	(8,688)	(1,717)
Proceeds from equipment financings	—	1,625
Repayment of equipment financings	(1,576)	(1,158)
Proceeds from exercise of stock options	7,657	1,069
Net cash provided by financing activities	734,598	192,329
Net change in cash, cash equivalents and restricted cash	449,852	102,190
Cash, cash equivalents and restricted cash—beginning of period	177,011	50,553
Cash, cash equivalents and restricted cash—end of period	$ 626,863	$ 152,743

The accompanying notes are an integral part of these condensed consolidated financial statements.

Beam Therapeutics Inc.
Condensed Consolidated Statements of Cash Flows - Continued
(*Unaudited*)
(in thousands)

	Nine Months Ended September 30,	
	2021	**2020**
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ 443	$ 422
Supplemental disclosure of noncash investing and financing activities:		
Conversion of redeemable convertible preferred stock to common stock upon closing of the initial public offering	$ —	$ 303,326
Property and equipment additions in accounts payable and accrued expenses	$ 7,515	$ 2,809
Operating lease liabilities arising from obtaining right-of-use assets	$ 24,164	$ 5,795
Issuance of common stock for research and development license	$ —	$ 264
Equity issuance costs in accounts payable and accrued expenses	$ 118	$ 342
Fair value of common shares issued to settle success payment liability	$ 30,000	$ —
Contingent consideration liabilities assumed in asset acquisition	$ 36,513	$ —
Fair value of equity instruments issued in connection with asset acquisition	$ 120,032	$ —
Accretion of redeemable convertible preferred stock to redemption value, including dividends on preferred stock	$ —	$ 1,277

The accompanying notes are an integral part of these condensed consolidated financial statements

1. Nature of the business and basis of presentation

Organization

Beam Therapeutics Inc., which we refer to herein as the "Company" or "Beam," is a biotechnology company committed to establishing the leading, fully integrated platform for precision genetic medicines. Beam's vision is to provide life-long cures to patients suffering from genetic diseases. The Company was incorporated on January 25, 2017 as a Delaware corporation and began operations in July 2017. Its principal offices are in Cambridge, Massachusetts.

In February 2021, the Company entered into an Agreement and Plan of Merger, or the Guide Merger Agreement, to acquire Guide Therapeutics, Inc., or Guide. Pursuant to the Guide Merger Agreement, the Company paid Guide's former stockholders and optionholders upfront consideration in an aggregate amount of $120.0 million, excluding customary purchase price adjustments, in shares of its common stock, based upon the volume-weighted average price of the Company's common stock over the ten-trading day period ending on February 19, 2021. In addition, Guide's former stockholders and optionholders are eligible to receive up to an additional $100.0 million in technology milestone payments and $220.0 million in product milestone payments, payable in the Company's common stock.

Liquidity and capital resources

Since its inception, the Company has devoted substantially all of its resources to building its base editing platform and advancing development of its portfolio of programs, establishing and protecting its intellectual property, conducting research and development activities, organizing and staffing the Company, business planning, raising capital and providing general and administrative support for these operations. The Company is subject to risks and uncertainties common to early-stage companies in the biotechnology industry including, but not limited to, technical risks associated with the successful research, development and manufacturing of product candidates, development by competitors of new technological innovations, dependence on key personnel, protection of proprietary technology, compliance with government regulations and the ability to secure additional capital to fund operations. Current and future programs will require significant research and development efforts, including extensive preclinical and clinical testing and regulatory approval prior to commercialization. These efforts require significant amounts of additional capital, adequate personnel and infrastructure. Even if the Company's product development efforts are successful, it is uncertain when, if ever, the Company will realize significant revenue from product sales.

In February 2020, the Company completed its initial public offering, or IPO, in which the Company issued and sold 12,176,471 shares of its common stock, including 1,588,235 shares pursuant to the full exercise of the underwriters' option to purchase additional shares, at a public offering price of $17.00 per share, for aggregate gross proceeds of $207.0 million. The Company received approximately $188.3 million in net proceeds after deducting underwriting discounts and offering expenses payable by the Company. In connection with the IPO, all outstanding shares of the Company's redeemable convertible preferred stock converted into 29,127,523 shares of its common stock.

In October 2020, the Company issued and sold 5,750,000 shares of its common stock, including 750,000 shares pursuant to the full exercise of the underwriters' option to purchase additional shares, at a public offering price of $23.50 per share, for aggregate gross proceeds of $135.1 million. The Company received approximately $126.6 million in net proceeds after deducting underwriting discounts and offering expenses payable by the Company.

On January 16, 2021, the Company entered into a Securities Purchase Agreement with certain purchasers, pursuant to which the Company agreed to sell and issue to the purchasers, in a private placement, shares of common stock of the Company. The closing of the private placement occurred on January 21, 2021. The Company issued and sold 2,795,700 shares of its common stock at a purchase price of $93.00 per share for aggregate gross proceeds of $260.0 million, before deducting fees to the placement agents and other offering expenses payable by the Company (See Note 11, *Preferred and common stock*). The Company received approximately $252.0 million in net proceeds after deducting fees to the placement agents and offering expenses payable by the Company.

In April 2021, the Company entered into an at the market, or ATM, sales agreement, or the Sales Agreement, with Jefferies LLC, or Jefferies, pursuant to which the Company was entitled to offer and sell, from time to time at prevailing market prices, shares of the Company's common stock having aggregate gross proceeds of up to $300.0 million. The Company agreed to pay Jefferies a commission of up to 3.0% of the aggregate gross sale proceeds of any shares sold by Jefferies under the Sales Agreement. As of September 30, 2021, the Company has sold 2,908,009 shares of its common stock under the Sales Agreement at an average price of $103.16 per share for aggregate gross proceeds of $300.0 million, before deducting commissions and offering expenses payable by the Company.

In July 2021, the Company and Jefferies entered into an amendment to the Sales Agreement to provide for an increase in the aggregate offering amount under the Sales Agreement, such that as of July 7, 2021, the Company may offer and sell shares of common stock having an aggregate offering price of an additional $500.0 million. As of September 30, 2021, the Company has sold 1,765,833

additional shares of its common stock under the amended Sales Agreement at an average price of $107.88 per share for aggregate gross proceeds of $190.5 million, before deducting commissions and offering expenses payable by the Company, resulting in an aggregate of $490.5 million in gross proceeds received under the Sales Agreement as of September 30, 2021.

Since its inception, the Company has incurred substantial losses and had an accumulated deficit of $703.6 million as of September 30, 2021. The Company expects to generate operating losses and negative operating cash flows for the foreseeable future.

The Company expects that its cash, cash equivalents, and marketable securities as of September 30, 2021 of $933.4 million will be sufficient to fund its operations for at least the next 12 months from the date of issuance of these financial statements. The Company will need additional financing to support its continuing operations and pursue its growth strategy. Until such time as the Company can generate significant revenue from product sales, if ever, it expects to finance its operations through a combination of equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. The Company may be unable to raise additional funds or enter into such other agreements when needed on favorable terms or at all. The inability to raise capital as and when needed would have a negative impact on the Company's financial condition and its ability to pursue its business strategy. The Company will need to generate significant revenue to achieve profitability, and it may never do so.

COVID-19-related significant risks and uncertainties

With the ongoing concern related to the COVID-19 pandemic during 2020 and in the first nine months of 2021, the Company has maintained and expanded its business continuity plans to address and mitigate the impact of the COVID-19 pandemic on its business. In March 2020, to protect the health of its employees, and their families and communities, the Company restricted access to its offices to personnel who performed critical activities that must be completed on-site, limited the number of such personnel that could be present at its facilities at any one time, and requested that most of its employees work remotely. In May 2020, as certain states eased restrictions, the Company established new protocols to better allow its full laboratory staff access to the Company's facilities. These protocols included several shifts working over a seven-day-week protocol. In June 2021, as states continued to ease restrictions, the Company started to allow for all of its employees to work on-site at the Company's facilities, with fewer restrictions, particularly for vaccinated employees. The Company expects to continue incurring additional costs to ensure it adheres to the COVID-19 guidelines instituted by the Centers for Disease Control and Prevention and to provide a safe working environment to its onsite employees.

The extent to which the COVID-19 pandemic impacts the Company's business, its corporate development objectives, and its results of operations and financial condition, including the value of and market for its common stock, will depend on future developments that are highly uncertain and cannot be predicted with confidence at this time, such as the duration, scope and severity of the pandemic, the duration and extent of travel restrictions and social distancing in the United States and other countries, business closures and business disruptions, the effectiveness of actions taken in the United States and other countries to contain and treat the disease, periodic spikes in infection rates, new strains of the virus that cause outbreaks of COVID-19, and the broad availability of effective vaccines. Disruptions to the global economy, disruption of global healthcare systems, and other significant impacts of the COVID-19 pandemic could have a material adverse effect on the Company's business, financial condition, results of operations and growth prospects.

While the COVID-19 pandemic did not significantly impact the Company's business or results of operations during the nine months ended September 30, 2021, the length and extent of the pandemic, its consequences, and containment efforts will determine the future impact on the Company's operations and financial condition.

2. Summary of significant accounting policies

The Company's significant accounting policies are disclosed in the audited consolidated financial statements for the year ended December 31, 2020, and notes thereto, which are included in the Company's Annual Report on Form 10-K that was filed with the Securities and Exchange Commission on March 15, 2021, or the 2020 Form 10-K. Since the date of those financial statements, there have been no material changes to Beam's significant accounting policies except as noted below.

Basis of presentation

The accompanying condensed consolidated financial statements have been prepared in accordance with United States generally accepted accounting principles, or GAAP. Any reference in these notes to applicable guidance is meant to refer to the authoritative GAAP as found in the Accounting Standards Codification, or ASC, and Accounting Standards Update, or ASU, of the Financial Accounting Standards Board, or FASB.

Principles of consolidation

The accompanying condensed consolidated financial statements include the results of operations of the Company and its wholly-owned subsidiaries. All intercompany transactions and balances have been eliminated in consolidation.

In September 2021, the Company's wholly-owned subsidiary Blink Therapeutics Inc., or Blink, merged with and into Beam, such that Blink's separate corporate existence ceased and Beam continued as the surviving corporation.

Use of estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and expenses, the determination of the fair value equity instruments and intangible assets acquired in an asset acquisition, and the disclosure of contingent assets and liabilities as of and during the reporting period. The Company bases its estimates and assumptions on historical experience, when available, and on various factors that it believes to be reasonable under the circumstances. The Company evaluates its estimates and assumptions on an ongoing basis. Actual results could differ from these estimates.

Cash, cash equivalents, and restricted cash

Cash and cash equivalents consist of standard checking accounts, money market accounts, and all highly liquid investments with a remaining maturity of three months or less at the date of purchase. Restricted cash represents collateral provided for letters of credit issued as security deposits in connection with the Company's leases of its corporate and manufacturing facilities.

The following table reconciles cash, cash equivalents, and restricted cash reported within the Company's condensed consolidated balance sheets to the total of the amounts shown in the condensed consolidated statements of cash flows (in thousands):

	September 30, 2021	September 30, 2020
Cash and cash equivalents	$ 612,023	$ 137,903
Restricted cash	14,840	14,840
Total cash, cash equivalents, and restricted cash	$ 626,863	$ 152,743

Asset acquisitions

In 2018, the Company adopted ASU 2017-01, *Business Combinations*, or ASU 2017-01, which clarified the definition of a business. The Company measures and recognizes asset acquisitions that are not deemed to be business combinations based on the cost to acquire the assets, which includes transaction costs, and the consideration is allocated to the items acquired based on a relative fair value methodology. Goodwill is not recognized in asset acquisitions. In an asset acquisition, the cost allocated to acquire in-process research and development with no alternative future use is charged to research and development expense at the acquisition date.

At the time of acquisition, the Company determines if a transaction should be accounted for as a business combination or acquisition of assets.

Contingent consideration liabilities

The estimated fair value of contingent consideration liabilities, initially measured and recorded on the acquisition date, are considered to be a Level 3 measurement and are reviewed quarterly, or whenever events or circumstances occur that indicate a change in fair value. The contingent consideration liabilities are recorded at fair value at the end of each reporting period with changes in estimated fair values recorded in other income (expense) in the condensed consolidated statements of operations and other comprehensive loss.

The estimated fair value is determined based on probability adjusted discounted cash flow models that include significant estimates and assumptions pertaining to technology and product development. Significant changes in any of the probabilities of success would result in a significantly higher or lower fair value measurement. Significant changes in the probabilities as to the periods in which milestones will be achieved would result in a significantly lower or higher fair value measurement.

3. Property and equipment, net

Property and equipment consist of the following (in thousands):

	September 30, 2021	December 31, 2020
Lab equipment	$ 24,374	$ 17,201
Leasehold improvements	12,769	12,706
Furniture and fixtures	1,081	1,078
Computer equipment	576	547
Construction in process	46,255	15,880
Total property and equipment	85,055	47,412
Less accumulated depreciation	(13,522)	(8,899)
Property and equipment, net	$ 71,533	$ 38,513

The following table summarizes depreciation expense incurred (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Depreciation expense	$ 1,675	$ 1,218	$ 4,642	$ 3,463

4. Fair value of financial instruments

The Company's financial instruments that are measured at fair value on a recurring basis consist of cash equivalents, marketable securities, contingent consideration liabilities related to the Guide Merger Agreement, equity securities of Verve Therapeutics, Inc., or Verve, and success payment derivative liabilities pursuant to the license agreement, or the Harvard License Agreement, between President and Fellows of Harvard University, or Harvard, and the Company, and the license agreement, or the Broad License Agreement, between The Broad Institute, Inc., or Broad Institute, and the Company.

The Company also holds an investment in privately issued corporate equity securities, which are accounted for as investments in equity securities. This investment does not have a readily determinable fair value and the Company values the investment based on the cost of the equity securities adjusted for observable market transactions or impairments, if any, and records any changes in value through earnings.

The following table sets forth the fair value of the Company's financial assets and liabilities by level within the fair value hierarchy at September 30, 2021 (in thousands):

	Carrying amount	Fair value	Level 1	Level 2	Level 3
Assets					
Cash equivalents:					
Money market funds	$ 583,524	$ 583,524	$ 583,524	$ —	$ —
Commercial paper	28,499	28,499	—	28,499	—
Marketable securities:					
Commercial paper	317,324	317,324	—	317,324	—
Corporate notes	4,058	4,058	—	4,058	—
Equity securities included in other long-term investments:					
Corporate equity securities	24,438	24,438	—	24,438	—
Total assets	$ 957,843	$ 957,843	$ 583,524	$ 374,319	$ —
Liabilities					
Success payment liability – Harvard	$ 24,700	$ 24,700	$ —	$ —	$ 24,700
Success payment liability – Broad Institute	24,900	24,900	—	—	24,900
Contingent consideration liability – Technology	19,910	19,910	$ —	$ —	$ 19,910
Contingent consideration liability – Product	7,050	7,050	—	—	7,050
Total liabilities	$ 76,560	$ 76,560	$ —	$ —	$ 76,560

The following table sets forth the fair value of the Company's financial assets and liabilities by level within the fair value hierarchy at December 31, 2020 (in thousands):

	Carrying amount	Fair value	Level 1	Level 2	Level 3
Assets					
Cash equivalents:					
Money market funds	$ 88,259	$ 88,259	$ 88,259	$ —	$ —
Commercial paper	60,494	60,497	—	60,497	—
Corporate notes	12,314	12,308	—	12,308	—
Marketable securities:					
Commercial paper	113,622	113,622	—	113,622	—
Corporate notes	7,836	7,836	—	7,836	—
U.S. Treasury securities	11,009	11,009	—	11,009	—
Government securities	5,033	5,033	—	5,033	—
Total assets	$ 298,567	$ 298,564	$ 88,259	$ 210,305	$ —
Liabilities					
Success payment liability – Harvard	$ 35,500	$ 35,500	$ —	$ —	$ 35,500
Success payment liability – Broad Institute	35,700	35,700	—	—	35,700
Total liabilities	$ 71,200	$ 71,200	$ —	$ —	$ 71,200

Cash equivalents – Money market funds included within cash equivalents are classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices in active markets. Commercial paper and corporate notes are classified within Level 2 of the fair value hierarchy because pricing inputs are other than quoted prices in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies.

Marketable securities and long-term investments – Marketable securities are classified within Level 2 of the fair value hierarchy because pricing inputs are other than quoted prices in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined using models or other valuation methodologies.

During the nine months ended September 30, 2021, the Company held an investment in Verve consisting of shares of Verve's common and preferred stock. Prior to Verve's initial public offering in June 2021, the Company valued such investment based on the cost of the equity securities adjusted for any observable market transactions. Following the initial public offering, the equity securities have a readily determinable fair value; however, they are subject to transfer restrictions. As of September 30, 2021 the Company owned 546,970 shares of Verve's common stock, the value of which is included in long-term investments in the condensed consolidated balance sheet. The Company recorded the investment at fair value of $24.4 million as of September 30, 2021, which resulted in the recognition of $4.9 million of other expense and $22.0 million of other income for the three and nine months ended September 30, 2021, respectively.

Pursuant to ASU No. 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*, the Company records changes in the fair value of its investments in equity securities to "Other income (expense), net" in the Company's condensed consolidated statements of operations.

Success payment liabilities – As discussed further in Note 9, *License agreements*, the Company is required to make payments determined based upon the achievement of specified multiples of the initial weighted average value of the Company's redeemable convertible Series A-1 Preferred Stock and the Company's redeemable convertible Series A-2 Preferred Stock, or collectively the Series A Preferred Stock, or, subsequent to the IPO, the market value of Beam's common stock, at specified valuation dates. The Company's liability for success payments under the Harvard License Agreement and Broad License Agreement are carried at fair value. To determine the estimated fair value of the success payment liability, the Company uses a Monte Carlo simulation methodology, which models the future movement of stock prices based on several key variables.

The following variables were incorporated in the calculation of the estimated fair value of the Harvard and Broad Institute success payment liabilities:

	Harvard		Broad Institute	
	September 30, 2021	December 31, 2020	September 30, 2021	December 31, 2020
Fair value of common stock (per share)	$ 87.01	$ 81.64	$ 87.01	$ 81.64
Expected volatility	77%	74%	76%	74%
Expected term (years)	0.10-7.75	0.35-8.49	0.10-8.61	0.35-9.36

The computation of expected volatility was estimated using available information about the historical volatility of stocks of similar publicly traded companies for a period matching the expected term assumption. In addition, the Company incorporated the estimated number, timing, and probability of valuation measurement dates in the calculation of the success payment liability.

The following table reconciles the change in the fair value of success payment liabilities based on Level 3 inputs (in thousands):

	Nine Months Ended September 30, 2021		
	Harvard	Broad Institute	Total
Balance at December 31, 2020	$ 35,500	$ 35,700	$ 71,200
Payments	(15,000)	(15,000)	(30,000)
Change in fair value	4,200	4,200	8,400
Balance at September 30, 2021	$ 24,700	$ 24,900	$ 49,600

Contingent consideration liabilities – As discussed further in Note 8, *Guide acquisition*, under the Guide Merger Agreement, Guide's former stockholders and optionholders are eligible to receive up to an additional $100.0 million in technology milestone payments and $220.0 million in product milestone payments, payable in the Company's common stock valued using the volume-weighted average price of the Company's stock over the ten-day trading period ending two trading days prior to the date on which the applicable milestone is achieved. As these milestones are payable in the Company's common stock, the milestone payments result in liability classification under ASC 480, *Distinguishing Liabilities from Equity*. These contingent consideration liabilities are carried at fair value which was estimated by applying a probability-based model, which utilized inputs based on timing of achievement that were unobservable in the market. These contingent consideration liabilities are classified within Level 3 of the fair value hierarchy.

The following table reconciles the change in fair value of the contingent consideration liabilities based on level 3 inputs (in thousands):

	Nine Months Ended September 30, 2021		
	Technology Milestones	Product Milestones	Total
Balance at February 23, 2021 (inception)	$ 29,403	$ 7,110	$ 36,513
Change in fair value	(9,493)	(60)	(9,553)
Balance at September 30, 2021	$ 19,910	$ 7,050	$ 26,960

The following variables were incorporated in the calculation of the estimated fair value of the contingent consideration liabilities:

	Technology Milestones	Product Milestones
	September 30, 2021	September 30, 2021
Discount Rate	7.50%	7.50%
Probability of Achievement	10-50%	2-15%
Projected Year of Achievement	2022	2023-2028

5. Marketable securities

The following table summarizes the Company's marketable securities held at September 30, 2021 (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Commercial paper	$ 317,303	$ 26	$ (5)	$ 317,324
Corporate notes	4,060	—	(2)	4,058
Total	$ 321,363	$ 26	$ (7)	$ 321,382

The following table summarizes the Company's marketable securities held at December 31, 2020 (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Commercial paper	$ 113,628	$ 11	$ (17)	$ 113,622
Corporate notes	7,839	2	(5)	7,836
U.S. Treasury securities	11,009	—	—	11,009
Government securities	5,033	—	—	5,033
Total	$ 137,509	$ 13	$ (22)	$ 137,500

The amortized cost of marketable securities is adjusted for amortization of premiums and accretion of discounts to maturity. At September 30, 2021, the balance in accumulated other comprehensive loss was comprised solely of activity related to marketable securities. There were no realized gains or losses recognized on the sale or maturity of marketable securities for the nine months ended September 30, 2021 and 2020 and, as a result, the Company did not reclassify any amounts out of accumulated other comprehensive loss for the same periods.

The Company holds debt securities of companies with high credit quality and has determined that there was no material change in the credit risk of any of its debt securities. The contractual maturity dates of all the investments are less than one year.

6. Accrued expenses and other current liabilities

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

	September 30, 2021	December 31, 2020
Employee compensation and related benefits	$ 5,841	$ 7,591
Research costs	4,987	2,423
Professional fees	3,733	1,948
Process development and manufacturing costs	3,285	2,272
Other	5,119	4,229
Total	$ 22,965	$ 18,463

7. Leases

Operating leases

The Company's operating leases are as follows:

- A February 2018 lease for 38,203 square feet of office and laboratory space, which commenced in March 2018 and terminates in September 2028. The lease is subject to fixed-rate rent escalations and provided for $6.1 million in tenant improvements and a term extension option, which is not reasonably certain of exercise.
- An October 2018 lease for laboratory space, which commenced in April 2019 and was amended in March 2020 and April 2020. The amended lease commenced in April 2020 and terminates in December 2025. The amended lease is subject to fixed-rate rent escalations and provided an option to extend the lease for two additional two-year periods through December 31, 2029, which are not reasonably certain of being exercised. Upon commencement of the March 2020 amendment, the Company recorded an operating lease right-of-use, or ROU, asset and a lease liability of $4.2 million. Upon commencement of the April 2020 amendment, the Company recorded an operating lease ROU asset and a lease liability of $1.8 million.
- Leases in June 2019 and July 2019 for office and laboratory space, both of which commenced in October 2019 and terminate in December 2021. The leases are subject to fixed-rate rent escalations.
- An April 2019 lease for office and laboratory space to be built. Pursuant to the terms of the original lease agreement, the first phase of the lease commenced in October 2020 (rent payments for the first phase beginning in August 2021) and the second phase of the lease commenced in January 2021 (rent payments for the second phase are expected to begin at the earliest in the first half of 2022). The lease is subject to fixed-rate rent escalations and provides for $23.4 million in tenant improvements and the option to extend the lease for two terms of five years each, which are not reasonably certain of exercise. The Company determined that it is the accounting owner of all tenant improvements. Upon executing the lease, the Company made a security deposit of $11.8 million in the form of a letter of credit, which is included in restricted cash as of September 30, 2021 and December 31, 2020. Upon commencement of the first phase of this lease in October 2020, the Company recorded an operating lease ROU asset of $66.8 million and a lease liability of $68.8 million and upon commencement of the second phase of this lease in January 2021, the Company recorded an operating lease ROU asset of $22.0 million and a corresponding lease liability of $23.0 million. Subsequently, during the second quarter of 2021, the Company amended the rent commencement dates of the first and second phases of this lease. Pursuant to the terms of the amendment, the lease will terminate on February 28, 2034, which is 12 years from the amended second phase commencement date. As a result, the Company recorded an increase in the ROU asset of $0.5 million and an increase in lease liability of $0.5 million.

The following table summarizes operating lease costs (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Operating lease costs	$ 4,557	$ 1,644	13,660	4,946
Variable lease costs	588	249	1,162	786
Short-term lease costs	383	—	761	—
Total	$ 5,528	$ 1,893	$ 15,583	$ 5,732

The following table summarizes the lease term and discount rate for operating leases:

	September 30, 2021	December 31, 2020
Weighted-average remaining lease term (years)	11.4	11.5
Weighted-average discount rate	7.1%	7.4%

The following table summarizes the lease costs for amounts included in the measurement of lease liabilities (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Operating cash flows used for operating leases	$ 3,058	$ 2,014	$ 7,053	$ 5,132
Operating lease liabilities arising from obtaining ROU assets	—	—	24,164	5,795

At September 30, 2021, the future minimum lease payments for the Company's operating leases for each of the years ending December 31 were as follows (in thousands):

Remainder of 2021	$ 4,159
2022	16,616
2023	17,262
2024	17,787
2025	18,260
Thereafter	132,835
Undiscounted lease payments	206,919
Less: imputed interest	(67,315)
Total operating lease liabilities	$ 139,604

In August 2020, the Company entered into a lease agreement with Alexandria Real Estate Equities, Inc., or the Landlord, to build a 100,000 square foot manufacturing facility in Research Triangle Park, North Carolina intended to support a broad range of clinical programs. The lease has a term of 15 years following the commencement date and provides the Company the option to extend the lease term for two five-year terms. It is subject to fixed rate escalation increases and also provides up to $20.0 million for reimbursement of tenant improvements. As the lease had not commenced as of September 30, 2021, the Company has not recorded an operating lease ROU asset or lease liability for this lease in the accompanying condensed consolidated balance sheets. The lease payments are subject to adjustment following the determination of the total project costs of the landlord. The initial estimate of the minimum amount of undiscounted lease payments due under this lease is $81.1 million. The Company anticipates that the facility will be operational in the first quarter of 2023. The tabular disclosure of minimum lease payments above does not include payments due under this lease.

In August 2021, the Company executed a lease amendment to its April 2019 lease for office and laboratory space in Cambridge, Massachusetts to occupy additional space. The term of this lease will run concurrent with the term of the April 2019 lease. The initial estimate of the minimum amount of undiscounted lease payments due under this lease is $11.1 million. As the lease had not commenced as of September 30, 2021, the Company has not recorded an operating lease ROU asset or lease liability for this lease in the accompanying condensed consolidated balance sheets and the tabular disclosure of minimum lease payments above does not include the payments under this lease.

In October 2021, the Company executed a lease for additional office and laboratory space at an existing facility. The term of this lease will run through December 31, 2025. The Company took access to part of this space in October 2021 and will record an operating lease ROU asset and lease liability during the fourth quarter of 2021. The initial estimate of the minimum amount of undiscounted lease payments due under this segment of the lease is $1.9 million. As part of this lease, the Company will take access to the remainder of this space in January 2022 and will record an operating lease ROU asset and lease liability during the first quarter of 2022. The initial estimate of the minimum amount of undiscounted lease payments due under this lease is $2.6 million. The tabular disclosure of minimum lease payments above does not include the payments under this segment of the lease.

8. Guide acquisition

On February 23, 2021, the Company entered into the Guide Merger Agreement. Under the Guide Merger Agreement, the Company paid Guide's former stockholders and optionholders upfront consideration in an aggregate amount of $120.0 million, excluding customary purchase price adjustments and closing costs, in shares of the Company's common stock, based upon the volume-weighted average price of the Company's stock over the ten trading day period ending on February 19, 2021. Pursuant to the Guide Merger Agreement, Beam acquired all of the issued and outstanding shares of Guide. The Company issued a total of 1,087,153 shares of its common stock valued at $120.0 million in connection with the upfront payment to Guide's former stockholders and optionholders. The Guide transaction resulted in the acquisition of certain know-how and intellectual property assets related to Guide's proprietary *in vivo* LNP screening technology and its library of lipids and lipid nanoparticle formulations identified using the screening technology. Management determined that the acquired assets do not meet the definition of a business pursuant to ASC 805, *Business Combinations*, as substantially all of the fair value of the acquired assets is concentrated into one identifiable asset, the LNP screening technology and associated lipid library. As of the date of closing of the transactions contemplated by the Guide Merger Agreement, or the Guide Merger Agreement Date, the asset acquired had no alternative future use and had not reached a stage of technological feasibility. As a result, all share-based and cash payment obligations have been recorded as research and development expense in the

accompanying condensed consolidated statements of operations and other comprehensive loss in the amount of $155.0 million. The total transaction price was allocated to the assets acquired and liabilities assumed on a relative fair value basis.

In addition, Guide's former stockholders and optionholders are eligible to receive up to an additional $100.0 million in technology milestone payments and $220.0 million in product milestone payments, payable in the Company's common stock valued using the volume-weighted average price of the Company's stock over the ten-day trading period ending two trading days prior to the date on which the applicable milestone is received.

The Company determined that all future technology and product milestone payments are classified as contingent consideration liabilities under ASC 480 and therefore the Company recorded a liability for these milestones as of the Guide Merger Agreement Date at fair value of $36.5 million. These contingent consideration liabilities will be remeasured at fair value each financial reporting period, with the resulting impact reflected in the Company's condensed consolidated statements of operations and other comprehensive loss, presented within other income (expense).

The transaction price was determined and allocated as follows (in thousands):

Transaction price		
Fair value of equity instruments issued	$	120,032
Technology and product contingent consideration liabilities		36,513
Transaction costs		2,531
Total transaction price	$	159,076
Transaction price allocated		
In-process research and development	$	154,953
Cash acquired		3,151
Prepaid expenses and other assets		264
Property and equipment		1,835
Assembled workforce		300
Other liabilities assumed		(1,427)
Total transaction price	$	159,076

9. License agreements

Harvard license agreement

Under the terms of the Harvard License Agreement, Harvard is entitled to receive success payments determined based upon the achievement of specified multiples of the initial weighted average value of the Company's Series A Preferred Stock at specified valuation dates. The success payments range from $5.0 million to a maximum of $105.0 million and have valuation multiples that range from 5 times to 40 times the initial weighted average value of the Series A Preferred Stock. Subsequent to the Company's February 2020 IPO, the amount of success payments is based on market value of Beam's common stock.

The Company is required to make success payments to Harvard during a period of time, or the Harvard Success Payment Period, which has been determined to be the later of (1) the ninth anniversary of the Harvard License Agreement or (2) the earlier of (a) the twelfth anniversary of the Harvard License Agreement and (b) the third anniversary of the first date on which a licensed product receives regulatory approval in the United States. During the Harvard Success Payment Period, the Company will perform a calculation of any amounts owed to Harvard on each rolling 90-day period, commencing one year after the Company's IPO, with the first success payment becoming due in May 2021.

The following table summarizes the Company's success payment liability for Harvard (in thousands):

		September 30, 2021		December 31, 2020
Harvard success payment liability	$	24,700	$	35,500

The following table summarizes the expense resulting from the change in the fair value of the success payment liability for Harvard (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Change in fair value of Harvard success payment liability	$ (17,900)	$ (1,400)	$ 4,200	$ 4,300

In May 2021, the first success payment measurement occurred and amounts due to Harvard were calculated to be $15.0 million. The Company elected to make the payment in shares of the Company's common stock and issued 174,825 shares of the Company's common stock to settle this liability on June 10, 2021.

The annual maintenance fee under the Harvard License Agreement is recorded as research and development expense. Patent prosecution costs are recognized as expense in the period incurred. As of September 30, 2021, the Company determined that product development and regulatory approval milestones and royalties under the Harvard License Agreement were not probable and, as such, no amounts were recognized for the nine months ended September 30, 2021. As of September 30, 2021, no success payments were due to Harvard.

Broad license agreement

Under the terms of the Broad License Agreement, Broad Institute is entitled to receive success payments, determined based upon the achievement of specified multiples of the initial weighted average value of Series A Preferred Stock at specified valuation dates. The success payments range from $5.0 million to a maximum of $105.0 million and have valuation multiples that range from 5 times to 40 times the initial weighted average value of the Series A Preferred Stock. Subsequent to the Company's February 2020 IPO, the amount of success payments is based on market value of Beam's common stock.

The Company is required to make success payments to Broad Institute during a period of time, or the Broad Success Payment Period, which has been determined to be the earliest of (1) the twelfth anniversary of the Broad License Agreement, or (2) the third anniversary of the first date on which a licensed product receives regulatory approval in the United States. During the Broad Success Payment Period, the Company will perform a calculation of any amounts owed to Broad Institute on each rolling 90-day period, commencing one year after the Company's IPO, with the first success payment becoming due in May 2021.

The following table summarizes the Company's success payment liability for Broad Institute (in thousands):

	September 30, 2021	December 31, 2020
Broad Institute success payment liability	$ 24,900	$ 35,700

The following table summarizes the expense resulting from the change in the fair value of the success payment liability for Broad Institute (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Change in fair value of Broad Institute success payment liability	$ (17,900)	$ (1,300)	$ 4,200	$ 4,400

In May 2021, the first success payment measurement occurred and amounts due to Broad Institute were calculated to be $15.0 million. The Company elected to make the payment in shares of the Company's common stock and issued 174,825 shares of the Company's common stock to settle this liability on June 10, 2021.

The annual maintenance fee under the Broad License Agreement is recorded as research and development expense. Patent prosecution costs are recognized as expense in the period incurred. As of September 30, 2021, the Company determined that product development and regulatory approval milestones and royalties under the Broad License Agreement were not probable and, as such, no amounts were recognized for the nine months ended September 30, 2021. As of September 30, 2021, no success payments were due to Broad Institute.

Editas license agreement

In May 2018, the Company entered into a license agreement, or the Editas License Agreement, with Editas Medicine, Inc., or Editas. Pursuant to the Editas License Agreement, Editas granted to the Company licenses and options to acquire licenses to certain intellectual property rights owned or controlled by Editas, for specified uses.

The annual maintenance fees under the Editas License Agreement are recorded as research and development expense. Annual patent costs are expensed as incurred. In addition, the Company is required to make certain development, regulatory and commercial milestone payments to Editas upon the achievement of specified milestones. As of September 30, 2021, the Company determined that it owed a regulatory milestone payment to Editas under the License Agreement and recognized $0.1 million of expense for the three and nine months ended September 30, 2021.

Bio Palette license agreement

In March 2019, the Company entered into a license agreement, or the Bio Palette License Agreement, with Bio Palette Co., Ltd., or Bio Palette, pursuant to which the Company received an exclusive (even as to Bio Palette), sublicensable license under certain patent rights related to base editing owned or controlled by Bio Palette to exploit products for the treatment of human disease throughout the world, but excluding products in the microbiome field in Asia. In addition, the Company granted Bio Palette an exclusive (even as to the Company) license under certain patent rights related to base editing and gene editing owned or controlled by the Company to

exploit products in the microbiome field in Asia. Each party to the agreement retains non-exclusive rights to develop and manufacture products in the microbiome field worldwide for the sole purpose of exploiting those products in its own territory. Each party agrees to certain coordination obligations in the microbiome field if either party determines not to exploit their rights in such field. Upon the execution of the Bio Palette License Agreement, the Company paid Bio Palette an upfront fee of $0.5 million and issued to Bio Palette 16,725 shares of its common stock valued at $0.1 million.

Unless earlier terminated, the Bio Palette License Agreement will expire on a licensed product-by-licensed product and country-by-country basis upon the expiration of the applicable royalty term for each such licensed product and country.

Upon the issuance of a certain Bio Palette patent in the United States in June 2020, the Company made a milestone payment of $2.0 million and, in July 2020, issued to Bio Palette 175,000 shares of its common stock valued at $0.3 million. The fair value of the common stock issued to Bio Palette under the Bio Palette License Agreement was measured at the inception of arrangement and expensed when the issuance of shares became probable.

Management concluded that the licenses acquired from each transaction above did not meet the accounting definition of a business as inputs, but no processes or outputs were acquired with the licenses, and the licensed technology had not achieved technological feasibility. As the inputs that were acquired along with the licenses do not constitute a “business,” the transactions have been accounted as asset acquisitions. As of the date of each license agreement, the assets acquired had no alternative future use and the assets had not reached a stage of technological feasibility. As a result, all share-based and cash payment obligations have been recorded as research and development expense in the accompanying condensed consolidated statements of operations and other comprehensive loss.

10. Collaboration and license agreements

Apellis Pharmaceuticals

On June 30, 2021, the Company entered into a master research and collaboration agreement, or the Apellis Agreement, with Apellis Pharmaceuticals, Inc., or Apellis, focused on the use of certain of the Company’s base editing technology to discover new treatments for complement system-driven diseases. Under the terms of the Apellis Agreement, the Company will apply certain of its base editing technology and conduct preclinical research on up to six base editing programs that target specific genes within the complement system in various organs, including the eye, liver, and brain. Apellis will have exclusive rights to license each of the six programs (each an “Opt-In Right”) and will assume responsibility for subsequent development. The Company may elect to enter into a 50-50 U.S. co-development and co-commercialization agreement with Apellis with respect to one program licensed under the collaboration. The collaboration will be managed on an overall basis by an Alliance Steering Committee, or ASC, formed by an equal number of representatives from the Company and Apellis.

As part of the collaboration, the Company is eligible to receive a total of $75.0 million in upfront and near-term milestones from Apellis, which is comprised of $50.0 million received upon signing and an additional $25.0 million payment on June 30, 2022, the one-year anniversary of the signing date of the Apellis Agreement, or the First Anniversary Payment. Following any exercise of an Opt-In Right for any of the six programs, the Company will be eligible to receive development, regulatory, and sales milestones from Apellis, as well as royalty payments on sales. The collaboration has an initial term of five years and may be extended up to two years on a per year and program-by-program basis. During the collaboration term, Apellis may, subject to certain limitations, substitute a specific complement gene and/or organ for any of the initial base editing programs. Apellis may terminate the Apellis Agreement for convenience on any or all of the programs by providing prior written notice. The Company received the $50.0 million in upfront payment from Apellis in July 2021.

The Company accounts for the Apellis Agreement under ASC 606, *Revenue from Contracts with Customers*, or ASC 606, as it includes a customer-vendor relationship as defined under ASC 606 and meets the criteria to be considered a contract.

The overall transaction price as of the inception of the contract was determined to be $75.0 million, which is composed of the upfront payment of $50.0 million and the First Anniversary Payment of $25.0 million. The Company will re-evaluate the transaction price in each reporting period. The $25.0 million for the First Anniversary Payment represents both a contract asset and a contract liability and the Company has presented these amounts net in accordance with ASC 606 guidance for contract assets and liabilities.

The Company concluded that each of the six base editing programs combined with the research and development service, licenses, substitution rights and governance participation were material promises that were both capable of being distinct and were distinct within the context of the Apellis Agreement and represented separate performance obligations. Therefore, the Company did not recognize any upfront revenue related to the license. The Company further concluded that the Opt-In Rights and option to extend the collaboration term did not grant Apellis a material right. The Company determined that the term of the contract is five years, as this is the period during which both parties have enforceable rights.

The selling price of each performance obligation was determined based on the Company’s estimated standalone selling price, or the ESSP. The Company developed the ESSP for all of the performance obligations included in the Apellis Agreement with the objective

of determining the price at which it would sell such an item if it were to be sold regularly on a standalone basis. The Company allocated the stand alone selling price to the performance obligations based on the relative standalone selling price method.

The Company recognizes revenue for each performance obligation as it is satisfied over the five-year term using an input method. For the three and nine months ended September 30, 2021, the Company recognized $0.8 million of revenue related to the Apellis Agreement. As of September 30, 2021, there is $12.8 million and $36.4 million of current and non-current deferred revenue liability, respectively, related to the Apellis Agreement.

Prime Medicine

In September 2019, the Company entered into a collaboration and license agreement, or the Prime Agreement, with Prime Medicine Inc., or Prime Medicine, to research and develop a novel gene editing technology developed by one of the Company's founders.

Under the terms of the agreement, the Company granted Prime Medicine a non-exclusive license to certain of its clustered regulatory interspaced short palindromic repeats, or CRISPR, technology (including Cas12b), delivery technology and certain other technology controlled by the Company to develop and commercialize gene editing products for the treatment of human diseases. The Company is required to use commercially reasonable efforts to develop new product candidates using the intellectual property licensed from Prime Medicine. Additionally, each party granted to the other party certain exclusive and non-exclusive licenses to certain technology developed after the effective date of the agreement and controlled by the granting party or jointly owned by the parties. Each party has an obligation to assign rights in certain technology developed under the collaboration to the other party.

The Company had an obligation to issue $5.0 million in shares of its common stock to Prime Medicine, and Prime Medicine had an obligation to issue 5,000,000 shares of its common stock to the Company, should the Company elect to extend the collaboration beyond one year. In September 2020, the Company elected to continue the collaboration and, in October 2020, issued 200,307 shares of its common stock to Prime Medicine. The Company recognized $5.0 million as research and development expense for the three and nine months ended September 30, 2020 as a result of its decision to extend its collaboration with Prime Medicine. Additionally, in October 2020, the Company received 5,000,000 shares of Prime Medicine's common stock and recognized $0.1 million as an offset to research and development expense for the year ended December 31, 2020.

Additionally, the Company provided immaterial interim management and startup services to Prime Medicine through March 2021.

As of September 30, 2021, the Company determined that future milestones and royalties under the Prime Agreement were not probable of recognition.

Verve

In April 2019, the Company entered into a collaboration and license agreement with Verve, or the Verve Agreement, to investigate gene editing strategies to modify genes associated with an increased risk of coronary diseases. Under the terms of the Verve Agreement, the Company granted Verve an exclusive license to certain base editor technology and certain delivery technology, and improvements and Verve granted Beam a non-exclusive license under certain know-how and patents controlled by Verve, an interest in joint collaboration technology and an exclusive license (except as to Verve) under certain delivery technology.

As of September 30, 2021, the Company determined that milestones and royalties under the Verve Agreement were not probable of recognition.

11. Preferred and common stock

In January 2020, the Company authorized the designation of 25,000,000 shares of preferred stock and increased its authorized common stock to 250,000,000 shares, each with a par value of $0.01 per share.

In February 2020, the Company completed its IPO in which the Company issued and sold 12,176,471 shares of its common stock, including 1,588,235 shares pursuant to the full exercise of the underwriters' option to purchase additional shares, at a public offering price of $17.00 per share, for aggregate gross proceeds of $207.0 million. The Company received approximately $188.3 million in net proceeds after deducting underwriting discounts and offering expenses payable by the Company. In connection with the IPO, all outstanding shares of the Company's redeemable convertible preferred stock converted into 29,127,523 shares of the Company's common stock.

In October 2020, the Company issued and sold 5,750,000 shares of its common stock, including 750,000 shares pursuant to the full exercise of the underwriters' option to purchase additional shares, at a public offering price of $23.50 per share, for aggregate gross proceeds of $135.1 million. The Company received approximately $126.6 million in net proceeds after deducting underwriting discounts and offering expenses payable by the Company.

In October 2020, due to its election to continue the Prime Agreement, the Company issued 200,307 shares of its common stock to Prime Medicine.

In January 2021, the Company issued and sold 2,795,700 shares of its common stock in a private placement at an offering price of $93.00 per share for aggregate gross proceeds of $260.0 million. The Company received $252.0 million in net proceeds after deducting fees to the placement agents and offering expenses payable by the Company.

In April 2021, the Company entered into the Sales Agreement, with Jefferies, pursuant to which the Company was entitled to offer and sell, from time to time at prevailing market prices, shares of the Company's common stock having aggregate gross proceeds of up to $300.0 million. The Company agreed to pay Jefferies a commission of up to 3.0% of the aggregate gross sale proceeds of any shares sold by Jefferies under the Sales Agreement. As of September 30, 2021, the Company has sold 2,908,009 shares of its common stock under the Sales Agreement at an average price of $103.16 per share for aggregate gross proceeds of $300.0 million, before deducting commissions and offering expenses payable by the Company.

In July 2021, the Company and Jefferies entered into an amendment to the Sales Agreement to provide for an increase in the aggregate offering amount under the Sales Agreement, such that as of July 7, 2021, the Company may offer and sell shares of common stock having an aggregate offering price of an additional $500.0 million. As of September 30, 2021, the Company has sold 1,765,833 additional shares of its common stock under the amended Sales Agreement at an average price of $107.88 per share for aggregate gross proceeds of $190.5 million, before deducting commissions and offering expenses payable by the Company, resulting in an aggregate of $490.5 million in gross proceeds received under the Sales Agreement as of September 30, 2021.

In May 2021, the first success payment measurements under each of the Harvard License Agreement and Broad Institute License Agreement occurred and success payments to Harvard and Broad Institute were calculated to be $15.0 million and $15.0 million, respectively. The Company elected to make each payment in shares of the Company's common stock and issued 174,825 shares of the Company's common stock to each of Harvard and Broad Institute to settle these liabilities in June 2021.

The holders of the Company's common stock are entitled to one vote for each share of common stock. Subject to the payment in full of all preferential dividends to which the holders of the Company's preferred stock are entitled, the holders of the Company's common stock shall be entitled to receive ratably dividends out of funds legally available. In the event of any voluntary or involuntary liquidation, dissolution, or winding up of the Company, after the payment or provision for payment of all debts and liabilities of the Company and all preferential amounts to which the holders of Company's preferred stock are entitled with respect to the distribution of assets in liquidation, the holders of common stock shall be entitled to share ratably in the remaining assets of the Company available for distribution.

12. Stock option and grant plan

Stock option and grant plan

The Beam Therapeutics Inc. 2017 Stock Option and Grant Plan adopted by the Company's board of directors in June 2017 and amended in each of February 2019 and May 2019 provided for the grant of qualified incentive stock options and nonqualified stock options, restricted stock awards, restricted stock units, or other awards to the Company's employees, officers, directors, advisors, and outside consultants for the issuance or purchase of shares of the Company's common stock.

In October 2019, the Company's board of directors adopted the Beam Therapeutics Inc. 2019 Equity Incentive Plan, or the 2019 Plan, and, subsequent to the IPO, all equity-based awards are granted under the 2019 Plan. The 2019 Plan provides for the grant of qualified and nonqualified stock options, stock appreciation rights, restricted and unrestricted stock and stock units, performance awards, and other share-based awards to the Company's employees, officers, directors, advisors, and outside consultants. As of September 30, 2021, the Company had 9,019,805 shares reserved including 1,985,950 shares available for future issuance pursuant to the 2019 Plan.

Stock-based compensation expense recorded as research and development and general and administrative expenses in the condensed consolidated statements of operations and other comprehensive loss is as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Research and development	$ 7,554	$ 1,999	$ 17,049	$ 5,577
General and administrative	5,414	1,013	11,019	2,996
Total stock-based compensation expense	$ 12,968	$ 3,012	$ 28,068	$ 8,573

Stock options

The following table provides a summary of option activity under the Company's equity award plans:

	Number of options	Weighted average exercise price
Outstanding at December 31, 2020	5,336,441	$ 9.70
Granted	1,638,143	88.57
Exercised	(774,352)	9.89
Forfeitures	(60,982)	28.53
Outstanding at September 30, 2021	6,139,250	30.53
Exercisable as of September 30, 2021	2,008,588	$ 9.57

The weighted-average grant date fair value per share of options granted in the nine months ended September 30, 2021 was $58.85. As of September 30, 2021, there was $107.3 million of unrecognized compensation expense related to unvested stock options, which is expected to be recognized over a weighted-average period of approximately 2.4 years.

Restricted stock

The Company issues shares of restricted common stock, including both restricted stock units and restricted stock awards. Restricted common stock issued generally vests over a period of two to four years.

The following table summarizes the Company's restricted stock activity:

	Shares	Weighted-average grant date fair value
Unvested as of December 31, 2020	1,275,338	$ 10.95
Issued	819,830	88.13
Vested	(799,609)	4.61
Cancelled	(8,725)	80.04
Unvested as of September 30, 2021	1,286,834	$ 63.59

At September 30, 2021, there was approximately $74.5 million of unrecognized stock-based compensation expense related to restricted stock that is expected to vest. These costs are expected to be recognized over a weighted-average period of approximately 2.7 years.

In February 2020, the Company's board of directors adopted the Beam Therapeutics Inc. 2019 Employee Stock Purchase Plan, or ESPP, which was approved by the Company's stockholders. Pursuant to the ESPP, certain employees of the Company, excluding consultants and non-employee directors, are eligible to purchase common stock of the Company at a reduced rate during offering periods. The ESPP permits participants to purchase common stock using funds contributed through payroll deductions, subject to a calendar year limit of $25,000 and at a purchase price of 85% of the lower of the fair market value of the Company's common stock on the first trading day of the offering period or on the applicable purchase date, which will be the final trading day of the applicable purchase period. The first offering period commenced on October 1, 2021. As of September 30, 2021, the Company had 1,049,460 shares available for issuance under the ESPP.

13. Net loss per share attributable to common stockholders

As noted above, for periods in which the Company reports a net loss attributable to common stockholders, potentially dilutive securities have been excluded from the computation of diluted net loss per share as their effects would be anti-dilutive. Therefore, the weighted average number of common shares outstanding used to calculate both basic and diluted net loss per share attributable to common stockholders is the same. The Company excluded the following potential common shares, presented based on amounts outstanding at period end, from the computation of diluted net loss per share attributable to common stockholders because including them would have had an anti-dilutive effect:

	As of September 30,	
	2021	2020
Unvested restricted stock	1,286,834	1,492,203
Outstanding options to purchase common stock	6,139,250	5,633,485
Total	7,426,084	7,125,688

The following table summarizes the computation of basic and diluted net loss per share attributable to common stockholders of the Company (in thousands except share and per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Numerator:				
Net loss attributable to common stockholders	$ (28,118)	$ (34,452)	$ (305,931)	$ (100,405)
Denominator:				
Weighted average number of common shares, basic and diluted	66,377,611	50,087,747	62,960,219	43,438,919
Net loss per common share attributable to common stockholders, basic and diluted	$ (0.42)	$ (0.69)	$ (4.86)	$ (2.31)

14. Income taxes

During the three and nine months ended September 30, 2021 and 2020, the Company recorded a full valuation allowance on federal and state deferred tax assets since management does not forecast the Company to be in a taxable position in the near future.

15. Related party transactions

Founders

The Company made payments of $0.1 million and $0.3 million to its three founder shareholders for scientific consulting and other expenses for the three and nine months ended September 30, 2021, respectively.

Verve

The Company and Verve are parties to the Verve Agreement and have a common board member.

Prior to Verve's initial public offering in June 2021, the Company owned both common and preferred shares of Verve and valued such investment based on the cost of the equity securities adjusted for any observable market transactions. Following the initial public offering, the equity securities have a readily determinable fair value; however, they are subject to transfer restrictions. Following the initial public offering, the Company owned 546,970 shares of Verve's common stock, the value of which is included in long-term investments in the condensed consolidated balance sheet. The Company recorded the investment at fair value as of September 30, 2021, which resulted in the recognition of $4.9 million of other expense and $22.0 million of other income for the three and nine months ended September 30, 2021, respectively. The value of this investment as of September 30, 2021 is $24.4 million.

During the nine months ended September 30, 2020, the Company purchased shares of Verve's series A preferred stock valued at $0.8 million and recognized gains of $0.5 million, which is recorded in other income, on its investment in Verve stock.

The Company purchased certain materials from Verve amounting to $0.2 million, which are recorded as research and development expenses within the accompanying condensed consolidated statements of operations and other comprehensive loss, for the nine months ended September 30, 2021. The Company purchased certain materials from Verve amounting to $0.3 million for the nine months ended September 30, 2020. The Company also sold certain materials to Verve amounting to $0.2 million for the nine months ended September 30, 2020.

In October 2021, the Company entered into an agreement pursuant to which Verve will sublease 12,000 square feet of Beam's existing office and laboratory space for a term of one year beginning in December 2021. Verve is expected to pay approximately $1.4 million in rental payments over the term of the sublease, as well as its proportionate costs for the landlord's operating expense, insurance, property taxes, and utilities.

Prime Medicine

The Company and Prime Medicine are parties to the Prime Agreement and have a common founder and a common board member.

Additionally, in September 2019, in connection with the Prime Agreement, the Company executed a letter agreement, as amended, to provide certain interim management and startup services to Prime Medicine through March 2021. Prime Medicine was obligated to reimburse the Company's out-of-pocket costs incurred in connection with performing these services and, beginning in October 2020 and ending in March 2021, paid the Company a $30,000 monthly service fee. For the nine months ended September 30, 2021, the Company recognized $0.1 million for performing such services in interest and other income (expense), net, within the accompanying consolidated statements of operations and other comprehensive loss.

16. Subsequent events

Sana Biotechnology

In October 2021, the Company entered into an option and license agreement with Sana Biotechnology, Inc., or Sana, to provide Sana with non-exclusive commercial rights to the Company's CRISPR Cas12b nuclease system for certain *ex vivo* engineered cell therapy programs. The agreement excludes any rights to base editing using the Company's CRISPR Cas12b system, which commercial rights remain with the Company. Under the terms of the agreement, Sana agreed to pay the Company an upfront payment of $50.0 million. The Company received this payment in October 2021. The Company is also eligible to receive certain target option exercise fees, certain milestone payments upon the achievement of certain development and commercial sale milestones, and certain royalties on net sales of royalty-bearing products by Sana.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our condensed consolidated financial statements and the related notes to those statements included elsewhere in this Quarterly Report on Form 10-Q. In addition to historical financial information, the following discussion and analysis contains forward-looking statements that involve important risks, uncertainties and assumptions. Some of the numbers included herein have been rounded for the convenience of presentation. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including those discussed in "Risk Factors" in Part II, Item 1A. and elsewhere in this Quarterly Report on Form 10-Q and in our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2021, and June 30, 2021, and in the "Risk Factors Summary" and "Item 1A. Risk Factors" section of our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, or the 2020 Form 10-K.

Overview

We are a biotechnology company committed to establishing the leading, fully integrated platform for precision genetic medicines. Our vision is to provide life-long cures to patients suffering from serious diseases. To achieve this vision, we have assembled a platform that includes a suite of gene editing and delivery technologies and are in the process of developing internal manufacturing capabilities. Our suite of gene editing technologies is anchored by our proprietary base editing technology, which potentially enables an entirely new class of precision genetic medicines that target a single base in the genome without making a double-stranded break in the DNA. This approach uses a chemical reaction designed to create precise, predictable and efficient genetic outcomes at the targeted sequence. Our novel base editors have two principal components: (i) a clustered regulatory interspaced short palindromic repeats, or CRISPR protein, bound to a guide RNA, that leverages the established DNA-targeting ability of CRISPR, but modified to not cause a double-stranded break, and (ii) a base editing enzyme, such as a deaminase, which carries out the desired chemical modification of the target DNA base. We believe this design contributes to a more precise and efficient edit compared to traditional gene editing methods, which operate by creating targeted double-stranded breaks in the DNA; these breaks can result in unwanted DNA modifications. We believe that the precision of our editors will dramatically increase the impact of gene editing for a broad range of therapeutic applications.

To unlock the full potential of our base editing technology across a wide range of therapeutic applications, we are pursuing a broad suite of both clinically validated and novel delivery modalities. For a given tissue type, we use the delivery modality with the most compelling biodistribution. Our current programs utilize three different delivery modalities: (1) electroporation for efficient delivery to blood cells and immune cells *ex vivo*; (2) lipid nanoparticles, or LNPs, for non-viral *in vivo* delivery to the liver and potentially other organs in the future; and (3) adeno-associated viral vectors, or AAV, for *in vivo* viral delivery to the eye.

The elegance of the base editing approach combined with a tissue specific delivery modality provides the basis for a targeted efficient, precise, and highly versatile gene editing system, capable of gene correction, gene silencing or gene activation, and/or multiplex editing of several genes simultaneously. We are currently advancing a broad, diversified portfolio of base editing programs against distinct editing targets, utilizing the full range of our development capabilities. We believe the flexibility and versatility of our base editors may lead to broad therapeutic applicability and transformational potential for the field of precision genetic medicines.

We believe that building an integrated platform combining our gene editing capabilities with advanced delivery and manufacturing capabilities will give us the maximum flexibility to develop our own sustainable portfolio and to create a hub for partnering with other companies to unlock the full potential of precision genetic medicine across all possible applications.

Hematology: Sickle cell disease and beta-thalassemia

We are using base editing to pursue the development of two complementary approaches to treating sickle cell disease, a severe inherited blood disease caused by a single point mutation, E6V, in the beta globin gene (BEAM-101 and BEAM-102), and one approach to treat beta-thalassemia, another inherited blood disorder characterized by severe anemia caused by reduced production of functional hemoglobin due to insufficient expression of the beta globin protein (BEAM-101).

BEAM-101: Recreating naturally-occurring protective mutations to activate fetal hemoglobin

In November 2021, we announced that our Investigational New Drug, or IND, application for BEAM-101 for the treatment of sickle cell disease was cleared by the U.S. Food and Drug Administration, or FDA. BEAM-101 is a patient-specific, autologous hematopoietic investigational cell therapy which was designed to incorporate *ex vivo* base edits that mimic single nucleotide polymorphisms seen in individuals with hereditary persistence of fetal hemoglobin, or HPFH, to potentially alleviate the effects of mutations causing sickle cell disease or beta thalassemia. We are preparing to initiate a Phase 1/2 clinical trial designed to assess the safety and efficacy of BEAM-101 for the treatment of sickle cell disease, which we refer to as our BEACON-101 trial.

We have achieved proof-of-concept *in vivo* with long-term engraftment of base edited human CD34 cells in mice for BEAM-101. Persistence of engraftment and high levels of editing have been confirmed in several preclinical studies, including in studies using material generated at a clinically relevant scale.

BEAM-102: Direct correction of the sickle cell mutation

Our second *ex vivo* base editing approach that we are developing for sickle cell disease, BEAM-102, is a direct correction of the causative sickle mutation at position 6 of the beta globin gene. This approach has been enabled by our inlaid base editors, or IBEs, which are architectural variants of base editors that have attributes of enhanced specificity and altered activity windows relative to foundational base editors. Our IBEs expand the breadth of potential base editing targets by extending the range of editing windows that can be created for any given CRISPR protein used to target the DNA. By inserting the deaminase into the CRISPR protein at various strategic positions, thereby repositioning the deaminase's editing window, IBEs enable editing outside the traditional editing window. BEAM-102 directly corrects the causative mutation in sickle cell disease by recreating a naturally-occurring normal human hemoglobin variant, HbG-Makassar. By making a single A-to-G edit, we have demonstrated in primary human CD34+ cells isolated from sickle cell disease patients the ability to create the naturally occurring Makassar variant of hemoglobin. This variant, which was identified in humans and first published in 1970, has the same function as the wild-type variant and does not cause sickle cell disease. Distinct from other approaches, cells that are successfully edited in this way are fully corrected, no longer containing the sickle protein.

During the second quarter of 2020, we published preclinical data on BEAM-102 demonstrating that our adenine base editors, or ABEs, can efficiently convert the causative Hemoglobin S, or HbS, point mutation, to HbG-Makassar, with high efficiency (more than 80%). In this preclinical study, the Makassar variant does not cause hemoglobin to polymerize and red blood cells to sickle and, therefore, edited cells are cured through elimination of the disease-causing protein. The results from this study confirmed the ability of the Makassar variant to protect cells from sickling, even in the context of mono-allelic editing (with one sickle allele and one corrected allele). In November 2021, we announced that we initiated IND-enabling studies for BEAM-102.

Oncology: CAR-T cell therapies

The initial indications that we plan to target with our chimeric antigen receptor T-cell, or CAR-T, product candidates are relapsed, refractory T-cell acute lymphoblastic leukemia, or T-ALL, a severe disease affecting children and adults, and Acute Myeloid Leukemia, or AML. We believe that our approach has the potential to produce higher response rates and deeper remissions than existing approaches. Our proof-of-concept pre-clinical experiments have demonstrated the ability of base editors to efficiently modify up to 8 genomic loci simultaneously in primary human T cells with efficiencies ranging from 85-95% as measured by flow cytometry of target protein knockdown. Importantly, these results were achieved without the generation of chromosomal rearrangements, as detected by sensitive methods such as UDiTaS™ or G-banded Karyotyping and with no loss of cell viability from editing. Our proof-of-concept experiments have also demonstrated robust T-cell killing of target tumor cells both in vitro and in vivo.

BEAM-201: Universal CD7-targeting CAR-T cells

BEAM-201 is our potent and specific anti-CD7, multiplex edited, allogeneic CAR-T development candidate for the treatment of relapsed/refractory T-ALL. BEAM-201 is produced using a Good Manufacturing Practice, or cGMP, compliant, clinical-scale process in which T-cells derived from healthy donors are simultaneously base edited at four genomic loci, then transduced with a lentivirus coding for an anti-CD7 CAR. The resulting cells are universally-compatible, allogeneic ("off the shelf") CD7-targeting CAR-T cells, resistant to both fratricide and immunosuppression. To our knowledge, BEAM-201 is the first cell therapy featuring four simultaneous edits. In August 2021, we announced that we had initiated IND-enabling studies for BEAM-201.

CD5-targeting CAR-T cells

In October 2021, we announced preclinical data from our multiplex edited allogeneic CAR T research program targeting CD5-positive hematologic malignancies which we intend to present later this year. This data demonstrated knockout of CD5 expression to be a general mechanism to enhance potency and potentially improve durability of highly multiplexed CAR T cells.

Liver diseases: Alpha-1 antitrypsin deficiency, glycogen storage disorder 1a and chronic hepatitis B infection

We are currently using a variety of cationic lipids from various sources to advance our programs for liver diseases, which include Alpha-1 Antitrypsin Deficiency, or Alpha-1, Glycogen Storage Disease Type IA, or GSDIa (also known as Von Gierke disease) and chronic hepatitis B infection.

Alpha-1 is a severe inherited genetic disorder that can cause progressive lung and liver disease. The most severe form of Alpha-1 arises when a patient has a point mutation in both copies of the SERPINA1 gene at amino acid 342 position (E342K, also known as the PiZ mutation or the "Z" allele). With the high efficiency and precision of our base editors, we aim to utilize our ABEs to enable the programmable conversion of A-to-T and G-to-C base pairs and precisely correct the E342K point mutation back to the wild type sequence. In 2020, we showed the ability to directly correct the mutation causing Alpha-1, providing both *in vitro* and *in vivo* preclinical proof-of-concept for base editing to correct this disease.

GSDIa is an inborn disorder of glucose metabolism caused by mutations in the G6PC gene, which results in low blood glucose levels that can be fatal if patients do not adhere to a strict regimen of slow-release forms of glucose, administered every one to four hours (including overnight). Our approach to treating patients with GSDIa is to apply base editing using lipid nanoparticle, or LNP, delivery to repair the two most prevalent mutations that cause the disease, R83C and Q347X. We have achieved editing levels *in vivo*, in

preclinical models, for the correction of the two most prevalent mutations causing GSDIa, which could be clinically relevant if reproduced in humans. Additionally, in October 2021, we presented new preclinical data demonstrating the ability of our liver-targeted base editing approach to directly correct R83C. To evaluate this approach, we created a novel humanized GSDIa R83C knockout mouse model in collaboration with the National Institutes of Health, or NIH, which mimicked the abnormal metabolic phenotype of human GSDIa. These data demonstrated that newborn huR38C mice treated with our LNP-delivered adenine base editors, or ABEs, exhibited normal growth to the end of the study at three weeks of age without any hypoglycemia-induced seizures. In contrast, homozygous animals were unable to survive soon after birth in the absence of glucose supplementation. In addition, we observed editing efficiencies up to approximately 60% by next generation sequencing of DNA isolated from the whole liver. Published studies suggest that a critical therapeutic threshold of approximately 11% of normal G6Pase activity in the liver is sufficient to mitigate fasting hypoglycemia in animal models of GSDIa. Based on these preclinical data and our LNP formulation progress discussed below, we expect to nominate our first development candidate for *in vivo* base editing in the liver using LNP delivery for the treatment of patients with GSDIa (R83C mutation) by the end of 2021.

Hepatitis B virus, or HBV, causes serious liver infection that can become chronic, increasing the risk of developing life-threatening health issues like cirrhosis, liver failure or liver cancer. Chronic HBV infection is characterized by the persistence of covalently closed circular DNA, or cccDNA, a unique DNA structure that forms in response to HBV infection in the nuclei of liver cells. Additionally, the HBV DNA can integrate into the human genome becoming a source of hepatitis B surface antigen, or HBsAg. While currently available treatments can manage HBV replication, they do not clear cccDNA from the infected liver cells. This inability to prevent HBV infection rebound from cccDNA is a key challenge to curing HBV. In September 2021, we presented preclinical data demonstrating the potential of our cytosine base editors to reduce viral markers, including HBsAg expression, and prevent viral rebound of HBV in *in vitro* models.

An important next step for our liver disease programs is finalizing our LNP formulation, and we are making progress on developing a formulation using proof-of-concept targets. In May 2021, we announced initial data from our evaluation of various LNP formulations and mRNA production processes using an mRNA-encoding ABE and guide RNA to target the ALAS1 gene, a surrogate payload for genetic liver diseases. These data showed improved *in vivo* editing in the livers of non-human primates, or NHPs, from less than 10% initially to 52% at a total RNA dose of 1.5 mg/kg. Continued optimization of our LNP formulations has demonstrated further increases in liver editing potency in NHPs. In September 2021, we presented data demonstrating up to 60% editing at a total RNA dose of 1.0 mg/kg. Data from our studies demonstrated that these formulations were well tolerated by NHPs treated with doses up to 1.5 mg/kg. Minimal to mild and transient liver enzyme elevations were observed and resolved by day 15 post-treatment. Additionally, the formulations showed promising interim stability, maintaining potency after three months at -20^{o}C and -80^{o}C. These and other LNP advances continue to give us confidence in our delivery to the liver and support our advances towards identifying and selecting future development candidates.

Ocular disorders: Stargardt disease

We are currently evaluating AAV technology to correct one of the most prevalent mutations in the ABCA4 gene causing Stargardt disease, a progressive macular degeneration. This mutation is known as the G1961E point mutation.

Our base editing approach is to repair the G1961E point mutation in the ABCA4 gene. Disease modeling using tiny spot stimuli, or light stimuli through holes that are equivalent in size to a single photoreceptor cell, suggests that only 12%-20% of these cells are sufficient to preserve vision. We anticipate, therefore, that editing percentages in the range of 12%-20% of these cells would be disease-modifying, since each edited cell will be fully corrected and protected from the biochemical defect.

We have identified a base editor that is able to edit approximately 45% of the alleles in recombinant cells carrying the human mutated sequence. Given that the base editor is larger than the packaging capacity of a single AAV, we use a split AAV system that delivers the base editor via two AAV vectors. Once inside the cell, the two halves of the editor are recombined to create a functional base editor. In a human retinal pigment epithelial cell line (ARPE-19 cells) in which we have knocked in the ABCA4 G1961E point mutation, we have demonstrated the precise correction of approximately 75% of the disease alleles at 5 weeks after dual infection with the split AAV system. In November 2021, we announced that we initiated preclinical studies in NHPs for our Stargardt program.

Delivery of genetic medicines

To complement our next-generation gene editing technologies, we are also making significant investments in a broad suite of delivery technologies to deliver our gene editing payloads to the right cells to enable potentially curative therapy. These delivery technologies include *ex vivo* electroporation, nonviral vectors such as LNPs, and viral vectors such as AAVs. In our pipeline, we have initially focused on applications of these technologies that are clinically-validated, such as *ex vivo* editing of blood stem cells or LNP delivery to the liver. Longer term, we are also investing in more innovative delivery options, such as LNPs that could target other organs beyond the liver, or novel viral vectors beyond AAV. We have also developed critical enabling capabilities such as mRNA manufacturing and cell processing for autologous and allogeneic cell therapy.

Consistent with this approach, our acquisition of Guide Therapeutics, Inc., or Guide, expands our ability to explore new tissues and disease indications with our editing technologies. Guide’s proprietary screening technology, which utilizes DNA barcodes to enable

high throughput *in vivo* LNP screening, provides us with access to an existing broad library of lipids and lipid formulations, and the ability to generate additional novel LNPs that we believe could accelerate novel nonviral delivery of gene editing payloads to tissues beyond the liver. In September 2021, we provided an update on our strategy for developing LNPs to deliver base editors to tissues beyond the liver, including hematopoietic stem and progenitor cells, or HSPCs. Leveraging our DNA barcoding technology, we identified a family of LNPs for delivery of base editors to HSPCs in mice, with administration at 1.0 mg/kg leading to 40% expression of mRNA cargo in cells. We are evaluating this delivery approach for potential application in hemoglobinopathies and other genetic blood disorders. In November 2021, we announced that we utilized our DNA barcoding technology to screen more than 1,000 LNPs and identified LNP-HSC1 as the most potent. LNP-HSC1 was validated *in vivo*, leading to durable, dose-dependent mRNA transfection in HSPCs of more than 40%, which was maintained for 10 weeks post-delivery. Further, LNP-HSC1 efficiently transfected mice at doses ranging from 0.3 mg/kg to 1.0 mg/kg, and in NHPs, a dose-dependent increase in mRNA in bone marrow-derived CD34+ HSPCs was observed.

Collaborations

We believe our base editing technology has potential across a broad array of genetic diseases. To fully realize this potential, we have established and will continue to seek out innovative collaborations, licenses, and strategic alliances with pioneering companies and with leading academic and research institutions. Additionally, we have and will continue to pursue relationships that potentially allow us to accelerate our preclinical research and development efforts. These relationships will allow us to aggressively pursue our vision of maximizing the potential of base editing to provide life-long cures for patients suffering from serious diseases.

Hematology and oncology

Sana Biotechnology

In October 2021, we entered into an option and license agreement with Sana Biotechnology, Inc., or Sana, pursuant to which we granted Sana non-exclusive commercial rights to our CRISPR Cas12b nuclease system for certain *ex vivo* engineered cell therapy programs. Cas12b is a CRISPR-based nuclease with a high degree of specificity and efficiency that can be used to knock out and/or knock in genes in certain cell types. Under the terms of the agreement, Sana received non-exclusive rights to utilize our Cas12b system with certain allogeneic T cell and stem cell-derived programs. The agreement excludes any rights to base editing using our Cas12b system, which commercial rights remain with Beam. Under the terms of the agreement, Sana made a $50.0 million upfront payment to us in cash in October 2021. According to the terms of our May 2018 license agreement with The Broad Institute, Inc., or Broad Institute, we owe certain sublicense fees to Broad Institute on the upfront payment. We are also eligible to receive certain target option exercise fees, milestone payments upon the achievement of certain development and commercial sale milestones, and royalties on net sales of royalty-bearing products by Sana.

Boston Children's Hospital

In July 2020, we formed a strategic alliance with Boston Children's Hospital, or Boston Children's. Under the terms of the agreement, we will sponsor research programs at Boston Children's to facilitate development of disease-specific therapies using our proprietary base editing technology. Boston Children's will also serve as a clinical site to advance bench-to-bedside translation of our pipeline across certain therapeutic areas of interest, including programs in sickle cell disease and pediatric leukemias and exploration of new programs targeting other diseases.

Magenta Therapeutics

In June 2020, we announced a non-exclusive research and clinical collaboration agreement with Magenta Therapeutics Inc., or Magenta, to evaluate the potential utility of MGTA-117, Magenta's novel targeted antibody-drug conjugate, for conditioning of patients with sickle cell disease and beta-thalassemia receiving our base editing therapies. Conditioning is a critical component necessary to prepare a patient's body to receive the edited cells, which carry the corrected gene and must engraft in the patient's bone marrow in order to be effective. Today's conditioning regimens rely on nonspecific chemotherapy or radiation, which are associated with significant toxicities. MGTA-117 is designed to precisely target only hematopoietic stem and progenitor cells, to spare immune cells, and has shown high selectivity, potent efficacy, wide safety margins and broad tolerability in non-human primate models. MGTA-117 may be capable of clearing space in bone marrow to support long-term engraftment and rapid recovery in patients. Combining the precision of our base editing technology with the more targeted conditioning regimen enabled by MGTA-117 has the potential to further improve therapeutic outcomes for patients suffering from these severe diseases. We will be responsible for clinical trial costs related to development of our base editors when combined with MGTA-117, while Magenta will continue to be responsible for all other development costs of MGTA-117.

Liver diseases

Verve Therapeutics

In April 2019, we entered into a collaboration and license agreement, or the Verve Agreement, with Verve Therapeutics Inc., or Verve, a company focused on developing genetic medicines to safely edit the genome of adults to permanently lower LDL cholesterol and triglyceride levels and thereby treat coronary heart disease. This collaboration allows us to more fully realize the potential of base

editing in treating cardiovascular diseases, an area outside of our core focus where the Verve team has significant expertise. Under the terms of the Verve Agreement, Verve received exclusive access to our base editing technology, gene editing, and delivery technologies for human therapeutic applications against certain cardiovascular targets. In exchange, we received shares of Verve common stock. Additionally, we will receive milestone payments for certain clinical and regulatory events and we retain the option, after the completion of Phase 1 studies, to participate in future development and commercialization, and share 50 percent of U.S. profits and losses, for any product directed against these targets. Verve granted to us a non-exclusive license under know-how and patents controlled by Verve, and an interest in joint collaboration technology. Either party may owe the other party other milestone payments for certain clinical and regulatory events related to the delivery technology products. Royalty payments may become due by either party to the other based on the net sales of any commercialized delivery technology products under the agreement. Per the terms of the Verve Agreement, we can exercise our right to participate in the future development and commercialization of any programs at the completion of Phase 1 studies.

In January 2021, Verve announced it had selected VERVE-101 as its lead product to be developed initially for the treatment of heterozygous familial hypercholesterolemia, or HeFH, a potentially fatal genetic heart disease. Individuals with HeFH have a genetic mutation causing extremely high LDL-C levels in the blood. Over time, high LDL-C builds up in the heart's arteries, resulting in reduced blood flow or blockage, and ultimately heart attack or stroke. Inactivation of the proprotein convertase subtilisin/kexin type 9, or PCSK9, gene has been shown to up-regulate LDL receptor expression, which leads to lower LDL-C levels. By making a single A-to-G change in the DNA genetic sequence of PCSK9, VERVE-101 aims to inactivate the target gene.

In January 2021, Verve also reported additional preclinical proof-of-concept data in non-human primates that demonstrated the successful use of ABEs to turn off PCSK9. Utilizing ABE technology licensed from us and an optimized guide RNA packaged in an engineered LNP, Verve announced data demonstrating that *in vivo* base editing of the PCSK9 gene in the liver of non-human primates resulted in durable and consistent lowering of blood LDL-C and blood PCSK9 protein levels following a single course of treatment. In its pre-clinical studies, Verve reported that a single intravenous infusion achieved a 59% reduction in blood LDL-C at two weeks, which was maintained at six months post treatment, and that LDL-C reduction over this time period averaged 61%. Verve also disclosed that during this same six-month time period, the average blood PCSK9 protein level was reduced by 89%. Verve further reported that the treatment was well tolerated with no adverse events reported during the study and that in studies of primary human hepatocytes, clear evidence of on-target editing was observed with no evidence of off-target editing.

Verve announced the closing of its initial public offering in June 2021, at which time we owned 546,970 shares of its common stock. Following the initial public offering, the equity securities are included in long-term investments on the consolidated balance sheet. We recorded the investment at fair value as of September 30, 2021, which resulted in of the recognition of $4.9 million of other expense and $22.0 million of other income for the three and nine months ended September 30, 2021, respectively. During the nine months ended September 30, 2020, we recognized gains of $0.5 million, which is recorded in other income, on our investment in Verve stock. The value of this investment as of September 30, 2021 is $24.4 million.

Ophthalmology

Institute of Molecular and Clinical Ophthalmology Basel

In July 2020, we announced a research collaboration with the Institute of Molecular and Clinical Ophthalmology Basel, or IOB. Founded in 2018 by a consortium that includes Novartis, the University Hospital of Basel and the University of Basel, IOB is a leader in basic and translational research aimed at treating impaired vision and blindness. Clinical scientists at IOB have also helped to develop better ways to measure how vision is impacted by Stargardt disease.

Additionally, researchers at IOB have developed living models of the retina, known as organoids, which can be used to test novel therapies. Under the terms of the agreement, the companies will leverage IOB's unique expertise in the field of ophthalmology along with our novel base editing technology to advance programs directed to the treatment of certain ocular diseases, including Stargardt disease.

Complement-Driven Diseases

Apellis Pharmaceuticals

In June 2021, we entered into a research collaboration agreement, or the Apellis Agreement, with Apellis Pharmaceuticals, Inc., or Apellis, focused on the use of certain of our base editing technology to discover new treatments for complement system-driven diseases. Under the terms of the Apellis Agreement, we will supply certain of our base editing technology and conduct preclinical research on up to six base editing programs that target specific genes within the complement system in various organs, including the eye, liver, and brain. Apellis will have exclusive rights to license each of the six programs and will assume responsibility for subsequent development. We may elect to enter into a 50-50 U.S. co-development and co-commercialization agreement with Apellis with respect to one program licensed under the collaboration.

As part of the collaboration, we are eligible to receive a total of $75.0 million in upfront and near-term milestones from Apellis, which is comprised of $50.0 million received upon signing and an additional $25.0 million payment on June 30, 2022, the one-year

anniversary of the signing date of the Apellis Agreement. Following any exercise of the opt-in license rights for any of the six programs, we will be eligible to receive development, regulatory, and sales milestones from Apellis, as well as royalty payments on sales. The collaboration has an initial term of five years and may be extended up to two years on a per year and program-by-program basis. We received the $50.0 million initial payment in July 2021. According to the terms of our June 2017 license agreement with Harvard University, or Harvard, we owe certain sublicense fees to Harvard on the upfront payment.

Manufacturing

To realize the full potential of base editors as a new class of medicines and to enable our parallel investment strategy in multiple delivery modalities, we are building customized and integrated capabilities across discovery, manufacturing, and preclinical and clinical development. Due to the critical importance of high-quality manufacturing and control of production timing and know-how, we have taken steps toward establishing our own manufacturing facility, which will provide us the flexibility to manufacture a variety of different product modalities. We believe this investment will maximize the value of our portfolio and capabilities, the probability of technical success of our programs, and the speed at which we can provide potentially life-long cures to patients.

In August 2020, we entered into a lease agreement with Alexandria Real Estate Equities, Inc. to build a 100,000 square foot current cGMP compliant manufacturing facility in Research Triangle Park, North Carolina intended to support a broad range of clinical programs. The initial estimate of the minimum amount of undiscounted lease payments due under this lease is $81.1 million. The tabular disclosure of minimum lease payments above under Note 7, Leases, does not include payments due under this lease. We anticipate that the facility will be operational in the first quarter of 2023. The project will be facilitated, in part, by a Job Development Investment Grant approved by the North Carolina Economic Investment Committee, which authorizes potential reimbursements based on new tax revenues generated through the project. The facility will be designed to support manufacturing for our *ex vivo* cell therapy programs in hematology and oncology and *in vivo* non-viral delivery programs for liver diseases, with flexibility to support manufacturing of our viral delivery programs, and ultimately, scale-up to support potential commercial supply.

For our initial waves of clinical programs, we will use contract manufacturing organizations, or CMOs, with relevant manufacturing experience in genetic medicines.

Acquisitions

In February 2021, we entered into an Agreement and Plan of Merger, or the Guide Merger Agreement, to acquire Guide Therapeutics, Inc., or Guide. Pursuant to the Guide Merger Agreement, we paid Guide's former stockholders and optionholders upfront consideration in an aggregate amount of $120.0 million, excluding customary purchase price adjustments, in shares of our common stock, based upon the volume-weighted average price of the common stock over the ten trading day period ending on February 19, 2021. In addition, Guide's former stockholders and optionholders are eligible to receive up to an additional $100.0 million in technology milestone payments and $220.0 million in product milestone payments, payable in our common stock.

COVID-19

With the ongoing concern related to the COVID-19 pandemic in the year ended December 31, 2020 and the nine months ended September 30, 2021, we have maintained and expanded our business continuity plans to address and mitigate the impact of the COVID-19 pandemic on our business. In March 2020, to protect the health of our employees, and their families and communities, we restricted access to our offices to personnel who performed critical activities that must be completed on-site, limited the number of such personnel that can be present at our facilities at any one time, and requested that most of our employees work remotely. In May 2020, as certain states eased restrictions, we established new protocols to better allow our full laboratory staff access to our facilities. These protocols included several shifts working over a seven-day week protocol. In June 2021, as states continued to ease restrictions, we started to allow for all of our employees to work on-site at our facilities, with fewer restrictions, particularly for vaccinated employees. We expect to continue incurring additional costs to ensure we adhere to the guidelines instituted by the Centers for Disease Control and to provide a safe working environment to our onsite employees.

The extent to which the COVID-19 pandemic impacts our business, our corporate development objectives, results of operations and financial condition, including the value of and market for our common stock, will depend on future developments that are highly uncertain and cannot be predicted with confidence at this time, such as the duration, scope and severity of the pandemic, the duration and extent of travel restrictions and social distancing in the United States and other countries, business closures and business disruptions, the effectiveness of actions taken in the United States and other countries to contain and treat the disease, periodic spikes in infection rates, new strains of the virus that cause outbreaks of COVID-19, and the broad availability of effective vaccines.

Disruptions to the global economy, disruption of global healthcare systems, and other significant impacts of the COVID-19 pandemic could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

While the COVID-19 pandemic did not significantly impact our business or results of operations during the nine months ended September 30, 2021, the length and extent of the pandemic, its consequences, and containment efforts will determine the future impact on our operations and financial condition.

Critical accounting policies and significant judgements

Our critical accounting policies are those policies which require the most significant judgments and estimates in the preparation of our condensed consolidated financial statements. We have determined that our most critical accounting policies are those relating to stock-based compensation, variable interest entities, fair value measurements, and leases. There have been no significant changes to our existing critical accounting policies and significant accounting policies discussed in the 2020 Form 10-K, except as discussed below.

Asset Acquisitions

In 2018, we adopted ASU 2017-01, *Business Combinations*, or ASU 2017-01, which clarified the definition of a business. We measure and recognize asset acquisitions that are not deemed to be business combinations based on the cost to acquire the assets, which includes transaction costs, and the consideration is allocated to the items acquired based on a relative fair value methodology. Goodwill is not recognized in asset acquisitions. In an asset acquisition, the cost allocated to acquire in-process research and development with no alternative future use is charged to research and development expense at the acquisition date.

At the time of acquisition, we determine if a transaction should be accounted for as a business combination or acquisition of assets.

Contingent Consideration Liabilities

We may be required to make milestone payments to the former stockholders and optionholders of Guide in the form of our common stock based on the achievement of certain product and technology milestones. The payments are accounted for under ASC 480, *Distinguishing Liabilities from Equity*. These contingent consideration liabilities are carried at fair value which was estimated by applying a probability-based model, which utilized inputs primarily based upon the achievement and related timing of certain product and technology milestones that were unobservable in the market. The estimated fair value of contingent consideration liabilities, initially measured and recorded on the acquisition date, are considered to be a Level 3 measurement and are reviewed quarterly, or whenever events or circumstances occur that indicate a change in fair value. The contingent consideration liabilities are recorded at fair value at the end of each reporting period with changes in estimated fair values recorded in other income (expense) in the condensed consolidated statements of operations and other comprehensive loss.

The estimated fair value is determined based on probability adjusted discounted cash flow models that include significant estimates and assumptions pertaining to technology and product development. Significant changes in any of the probabilities of success would result in a significantly higher or lower fair value measurement. Significant changes in the probabilities as to the periods in which milestones will be achieved would result in a significantly lower or higher fair value measurement.

Financial operations overview

General

We were incorporated on January 25, 2017 and commenced operations shortly thereafter. Since our inception, we have devoted substantially all of our resources to building our base editing platform and advancing development of our portfolio of programs, establishing and protecting our intellectual property, conducting research and development activities, organizing and staffing our company, business planning, raising capital and providing general and administrative support for these operations. To date, we have financed our operations primarily through the sales of our redeemable convertible preferred stock, proceeds from offerings of our common stock and payments received under collaboration and license agreements.

We are a development stage company, and all of our programs are at a preclinical stage of development. To date, we have not generated any revenue from product sales and do not expect to generate revenue from the sale of our products for the foreseeable future. Since inception we have incurred significant operating losses. Our net losses for the nine months ended September 30, 2021 and 2020 were $305.9 million and $99.1 million, respectively. As of September 30, 2021, we had an accumulated deficit of $703.6 million. We expect to continue to incur significant expenses and increasing operating losses in connection with ongoing development activities related to our portfolio of programs as we continue our preclinical development of product candidates; advance these product candidates toward clinical development; build and operate our cGMP facility in North Carolina, further develop our base editing platform; continue to make investments in delivery technology for our base editors, including in connection with our acquisition of Guide; conduct research activities as we seek to discover and develop additional product candidates; maintain, expand, enforce, defend and protect our intellectual property portfolio; and continue to hire research and development, clinical and commercial personnel. In addition, we expect to continue to incur additional costs associated with operating as a public company.

As a result of these anticipated expenditures, we will need additional financing to support our continuing operations and pursue our growth strategy. Until such time as we can generate significant revenue from product sales, if ever, we expect to finance our

operations through a combination of equity offerings, debt financings, collaborations, strategic alliances, and licensing arrangements. We may be unable to raise additional funds or enter into such other agreements when needed on favorable terms or at all. Our inability to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy. We can give no assurance that we will be able to secure such additional sources of funds to support our operations, or, if such funds are available to us, that such additional funding will be sufficient to meet our needs.

Research and development expenses

Research and development expenses consist of costs incurred in performing research and development activities, which include:

- Expenses incurred in connection with investments in delivery technology for our base editors, including as a result of our acquisition of Guide;
- the cost to obtain licenses to intellectual property, such as those with Harvard University, Broad Institute of MIT and Harvard, or Broad Institute, and Editas Medicine, Inc, or Editas, and related future payments should certain success, development and regulatory milestones be achieved;
- personnel-related expenses, including salaries, bonuses, benefits and stock-based compensation for employees engaged in research and development functions;
- expenses incurred in connection with the discovery and preclinical development of our research programs, including under agreements with third parties, such as consultants, contractors and contract research organizations;
- expenses incurred in connection with the building of our base editing platform;
- the cost of manufacturing product candidates for use in our preclinical studies and future clinical trials;
- laboratory supplies and research materials; and
- facilities, depreciation and other expenses which include direct and allocated expenses.

We expense research and development costs as incurred. Advance payments that we make for goods or services to be received in the future for use in research and development activities are recorded as prepaid expenses. The prepaid amounts are expensed as the benefits are consumed.

In the early phases of development, our research and development costs are often devoted to product platform and proof-of-concept studies that are not necessarily allocable to a specific target.

We expect that our research and development expenses will increase substantially in connection with our planned preclinical and future clinical development activities.

General and administrative expenses

General and administrative expenses consist primarily of salaries and other related costs, including stock-based compensation, for personnel in our administrative functions. General and administrative expenses also include allocated facility related expenses and other operating costs.

We anticipate that our general and administrative expenses will increase in the future to support increased research and development activities. We also expect to continue to incur increased costs associated with being a public company and implementing controls over financial reporting, including costs of accounting, audit, legal, regulatory and tax-related services associated with maintaining compliance with the requirements of the Nasdaq Global Select Market and SEC, director and officer insurance costs, and investor and public relations costs.

Other income and expenses

Other income and expenses consist of the following items:

- *Change in fair value of derivative liabilities* consists of remeasurement gains or losses associated with changes in success payment liabilities associated with our license agreement with Harvard, dated as of June 27, 2017, as amended, or the Harvard License Agreement, and our license agreement with The Broad Institute, dated as of May 9, 2018, as amended, or the Broad License Agreement.
- *Change in fair value of long-term investments* consists of mark-to-market adjustments related to our investments in equity securities.

- *Change in fair value of contingent consideration liabilities* consists of remeasurement of the fair market value associated with changes in the technology and product contingent consideration liabilities as part of the Guide Merger Agreement.
- *Interest and other income (expense)*, net consists primarily of interest income as well as interest expense related to our equipment financings.

Results of operations

Comparison of the three months ended September 30, 2021 and 2020

The following table summarizes our results of operations (in thousands):

	Three Months Ended September 30,		
	2021	2020	Change
License and collaboration revenue	$ 763	$ 6	$ 757
Operating expenses:			
Research and development	54,623	29,825	24,798
General and administrative	15,774	7,502	8,272
Total operating expenses	70,397	37,327	33,070
Loss from operations	(69,634)	(37,321)	(32,313)
Other income (expense):			
Change in fair value of derivative liabilities	35,800	2,700	33,100
Change in fair value of long-term investments	(4,892)	—	(4,892)
Change in fair value of contingent consideration liabilities	10,599	—	10,599
Interest and other income (expense), net	9	169	(160)
Total other income (expense)	41,516	2,869	38,647
Net loss	$ (28,118)	$ (34,452)	$ 6,334

License and collaboration revenue

License and collaboration revenue was approximately $0.8 million and $6.0 thousand for the three months ended September 30, 2021 and 2020, respectively. License and collaboration revenue represents revenue recorded under the Apellis and Verve Agreements.

Research and development expenses

Research and development expenses were $54.6 million and $29.8 million for the three months ended September 30, 2021 and 2020, respectively. The increase of $24.8 million was primarily due to the following:

- An increase of $6.6 million in personnel-related costs and $3.9 million in facility-related costs, including depreciation. These increases were due to the growth in the number of research and development employees from 136 at September 30, 2020 to 250 at September 30, 2021, and their related activities, as well as the expense allocated to research and development related to our leased facilities.
- An increase of $6.0 million in lab supplies due to the movement of our lead programs into IND enabling activities and continued investment in platform and discovery efforts.
- An increase of $5.6 million in stock-based compensation from additional stock option awards due to the increase in the number of research and development employees as well as an increase in the value of our common stock.
- An increase of $4.1 million in outsourced services, driven by process development spend and IND enabling materials for BEAM-102, assay development and qualification for mRNA and gRNA for BEAM-101 and BEAM-201, toxicology studies related to BEAM-201 and initial clinical start-up activities for BEAM-101.
- An increase of $1.4 million in other expenses, primarily related to an increase in research and development specific software costs.
- A decrease of $2.7 million in milestone expenses. During the three months ended September 30, 2020, we recognized $5.0 million expense as a result of our decision to extend our collaboration with Prime Medicine. In September 2021, we recorded an additional $1.6 million in sublicense fees and $0.7 million of expense for milestones related to our technology license agreements.

Research and development expenses are expected to continue to increase as we start to initiate clinical trials for BEAM-101, continue IND enabling studies for BEAM-102, continue our current research programs, initiate new research programs, continue the preclinical development of our product candidates and conduct any future preclinical studies and begin to enroll patients and conduct clinical trials for any of our product candidates.

General and administrative expenses

General and administrative expenses were $15.8 million and $7.5 million for the three months ended September 30, 2021 and 2020, respectively. The increase of $8.3 million was primarily due to the following:

- An increase of $4.4 million in stock-based compensation due to an increase in the number of general and administrative employees, as well as an increase in the value of our common stock.
- An increase of $2.5 million in personnel related costs and $0.6 million in facility-related costs, including depreciation, due to an increase in general and administrative employees from 30 employees as of September 30, 2020 to 56 employees as of September 30, 2021, as well as the expense allocated to general and administrative expenses related to our leased facilities.
- An increase of $0.4 million in insurance costs due to higher premiums attributable to the Company's directors and officers insurance policy following our IPO in February 2020 and insurance costs related to our acquisition of Guide in 2021.
- An increase of $0.5 million in legal costs primarily due to legal fees incurred in connection with the Apellis and Sana Agreements.

Change in fair value of derivative liabilities

During the three months ended September 30, 2021, we recorded $35.8 million of other income related to the change in fair value of success payment liabilities as compared to $2.7 million of other income for the three months ended September 30, 2020 due to decreases in the price of our common stock for the three months ended September 30, 2021 and 2020. A portion of the success payment obligations were paid in June 2021; the remaining success payment obligations are still outstanding as of September 30, 2021 and will continue to be revalued at each reporting period.

Change in fair value of long-term investments

During the three months ended September 30, 2021, we recorded other expense of $4.9 million as a result of a decrease in the value of our investment in Verve's common stock.

Change in contingent consideration liabilities

During the three months ended September 30, 2021, we recorded $10.6 million of other income related to the change in fair value of the Guide technology and product contingent consideration liabilities as a result of an update in project timelines and the expected probability of achievement of the milestones.

Interest and other income (expense), net

The decrease in interest and other income (expense), net was primarily due to a decrease in interest income driven by decreased market rates.

Comparison of the nine months ended September 30, 2021 and 2020

The following table summarizes our results of operations, together with the change in dollars (in thousands):

	Nine Months Ended September 30,		
	2021	2020	Change
License and collaboration revenue	$ 775	$ 18	$ 757
Operating expenses:			
Research and development	290,306	70,728	219,578
General and administrative	39,450	21,251	18,199
Total operating expenses	329,756	91,979	237,777
Loss from operations	(328,981)	(91,961)	(237,020)
Other income (expense):			
Change in fair value of derivative liabilities	(8,400)	(8,700)	300
Change in fair value of long-term investments	21,960	517	21,443
Change in fair value of contingent consideration liabilities	9,553	—	9,553
Interest and other income (expense), net	(63)	1,016	(1,079)
Total other income (expense)	23,050	(7,167)	30,217
Net loss	$ (305,931)	$ (99,128)	$ (206,803)

License and collaboration revenue

License and collaboration revenue was approximately $0.8 million and $18.0 thousand for the nine months ended September 30, 2021 and September 30, 2020, respectively. License and collaboration revenue represents revenue recorded under the Apellis and the Verve Agreements.

Research and development expenses

Research and development expenses were $290.3 million and $70.7 million for the nine months ended September 30, 2021 and 2020, respectively. The increase of $219.6 million was primarily due to the following:

- $155.0 million of expense related to in-process research and development asset acquired from Guide as there was determined to be no alternative future use.
- An increase of $17.9 million in outsourced services, driven by process development, IND enabling materials and clinical readiness spend for BEAM-101, BEAM-201 and BEAM-102, assay development and qualification of gRNA and mRNA materials for BEAM-101 and BEAM-201, and toxicology studies and activities for BEAM-101 and BEAM-201.
- Increases of $14.0 million in personnel-related costs and $10.8 million in facility-related costs, including depreciation. These increases were due to the growth in the number of research and development employees from 136 at September 30, 2020 to 250 at September 30, 2021, and their related activities, as well as the expense allocated to research and development related to our leased facilities.
- An increase of $11.5 million in stock-based compensation due to the increase in the number of research and development employees, as well as an increase in the value of our common stock.
- An increase of $10.6 million in lab supplies due to the movement of our lead programs into IND enabling activities and continued investment in platform and discovery efforts.
- An increase of $3.8 million in other expenses, primarily related to an increase in research and development specific software costs.
- A decrease of $4.0 million in milestone and license expenses. During the nine months ended September 30, 2020, we recognized $5.0 million in expense as a result of our decision to extend our collaboration with Prime Medicine. During the nine months ended September 30, 2020, we also recorded a $2.3 million expense for a milestone paid to Bio Palette upon the issuance of a certain patent in the United States becoming probable. During the nine months ended September 30, 2021, we recorded $2.7 million in sublicense fees. In September 2021, we recorded $0.7 million of expense for milestones related to our technology license agreements.

Research and development expenses are expected to continue to increase as we start to initiate clinical trials for BEAM-101, continue IND-enabling studies for BEAM-102, continue our current research programs, initiate new research programs, continue the preclinical development of our product candidates and conduct any future preclinical studies and begin to enroll patients and conduct clinical trials for any of our product candidates.

General and administrative expenses

General and administrative expenses were $39.5 million and $21.3 million for the nine months ended September 30, 2021 and 2020, respectively. The increase of $18.2 million was primarily due to the following:

- An increase of $8.0 million in stock-based compensation due to an increase in the number of general and administrative employees, as well as an increase in the value of our common stock.
- Increases of $6.6 million in personnel related costs and $1.4 million in facility related costs, including depreciation costs, due to an increase in general and administrative employees from 30 employees as of September 30, 2020 to 56 employees as of September 30, 2021, as well as the expense allocated to general and administrative expenses related to our leased facilities.
- An increase of $1.2 million in insurance costs due to increased directors and officers insurance costs as a result of our IPO in February 2020 and insurance costs related to our acquisition of Guide in 2021.
- An increase of $1.4 million in legal costs primarily due to legal fees incurred in connection with our acquisition of Guide and the completion of the Apellis and Sana Agreements.

Change in fair value of derivative liabilities

During the nine months ended September 30, 2021, we recorded $8.4 million of other expense related to the change in fair value of success payment liabilities as compared to $8.7 million of other expense for the nine months ended September 30, 2020 due to increases in the price of our common stock for the nine months ended September 30, 2021 and 2020. A portion of the success payments was paid in shares in June 2021; the remaining success payment obligations are still outstanding as of September 30, 2021 and will continue to be revalued at each reporting period.

Change in fair value of long-term investments

During the nine months ended September 30, 2021 and 2020, we recorded income of $22.0 million and $0.5 million as a result of increases in the value of our investment in Verve's common stock.

Change in contingent consideration liabilities

During the nine months ended September 30, 2021, we recorded $9.6 million of other income related to the change in fair value of the Guide technology and product contingent consideration liabilities as a result of an update in project timelines and the expected probability of achievement of the milestones.

Interest and other income (expense), net

The decrease in interest and other income (expense), net was primarily due to a decrease in interest income driven by decreased market rates.

Liquidity and capital resources

Since our inception in January 2017, we have not generated any revenue from product sales, have generated only limited license revenue from the Verve Agreement and the Apellis Agreement, and have incurred significant operating losses and negative cash flows from our operations. We expect to incur significant expenses and operating losses for the foreseeable future as we advance the preclinical and, if successful, the clinical development of our product candidates. In February 2020, we completed our IPO in which we issued and sold 12,176,471 shares of our common stock, including 1,588,235 shares of common stock sold pursuant to the underwriters' full exercise of their option to purchase additional shares, at a public offering price of $17.00 per share. We received net proceeds from our IPO of $188.3 million, after deducting underwriting discounts and offering expenses payable by us. In October 2020, we issued and sold 5,750,000 shares of our common stock, including 750,000 shares pursuant to the full exercise of the underwriters' option to purchase additional shares, at a public offering price of $23.50 per share, for aggregate gross proceeds of $135.1 million. We received approximately $126.6 million in net proceeds after deducting applicable underwriting discounts and offering expenses. In January 2021, we issued and sold 2,795,700 shares of our common stock in a private placement at an offering price of $93.00 per share for aggregate gross proceeds of $260.0 million. We received $252.0 million in net proceeds after deducting offering expenses payable by us. To date, we have funded our operations primarily through equity offerings.

In April 2021, we filed a universal shelf registration statement on Form S-3 with the SEC, or the 2021 Shelf, to register for sale an indeterminate amount of our common stock, preferred stock, debt securities, warrants and/or units in one or more offerings, which became effective upon filing with the SEC (File No. 333-254946).

In April 2021, we entered into an at the market, or ATM, sales agreement, or the Sales Agreement, with Jefferies LLC, or Jefferies, pursuant to which we were entitled to offer and sell, from time to time at prevailing market prices, shares of our common stock having aggregate gross proceeds of up to $300.0 million. We agreed to pay Jefferies a commission of up to 3.0% of the aggregate gross sale proceeds of any shares sold by Jefferies under the Sales Agreement. As of September 30, 2021, we have sold 2,908,009 shares of our common stock under the Sales Agreement at an average price of $103.16 per share for aggregate gross proceeds of $300.0 million, before deducting commissions and offering expenses payable by us.

In July 2021, we and Jefferies entered into an amendment to the Sales Agreement to provide for an increase in the aggregate offering amount under the Sales Agreement, such that as of July 7, 2021, we may offer and sell shares of common stock having an aggregate offering price of an additional $500.0 million. As of September 30, 2021, we have sold 1,765,833 additional shares of our common stock under the amended Sales Agreement at an average price of $107.88 per share for aggregate gross proceeds of $190.5 million, before deducting commissions and offering expenses payable by us, resulting in an aggregate of $490.5 million in gross proceeds received under the Sales Agreement as of September 30, 2021.

As of September 30, 2021, we had $933.4 million in cash, cash equivalents, and marketable securities.

We are required to make success payments to Harvard and Broad Institute based on increases in the per share fair market value of our Series A-1 Preferred Stock and Series A-2 Preferred Stock or, subsequent to our IPO, our common stock. The amounts due may be settled in cash or shares of our common stock, at our discretion. In May 2021, the first success payment measurements occurred and success payments to Harvard and Broad Institute were calculated to be $15.0 million and $15.0 million, respectively. We elected to make each payment in shares of our common stock and issued 174,825 shares to each of Harvard and Broad Institute to settle these liabilities in June 2021.

We have not yet commercialized any of our product candidates, and we do not expect to generate revenue from the sale of our products candidates for the foreseeable future. We anticipate that we may need to raise additional capital in order to continue to fund our research and development, including our planned preclinical studies and clinical trials, building, maintaining and operating a commercial-scale cGMP manufacturing facility, and new product development, as well as to fund our general operations. As and if necessary, we will seek to raise these additional funds through various potential sources, such as equity and debt financings or through corporate collaboration and license agreements. Especially in light of the COVID-19 pandemic, we can give no assurances that we will be able to secure such additional sources of funds to support our operations, or, if such funds are available to us, that such additional financing will be sufficient to meet our needs. For a more detailed discussion of risks related to COVID-19, please see Part I, Item 1A, *Risk Factors—Risks related to our relationships with third parties*, included in our 2020 Form 10-K.

Cash flows

The following table summarizes our sources and uses of cash (in thousands):

	Nine Months Ended September 30,	
	2021	2020
Net cash used in operating activities	$ (68,098)	$ (71,443)
Net cash used in investing activities	(216,648)	(18,696)
Net cash provided by financing activities	734,598	192,329
Net change in cash, cash equivalents and restricted cash	$ 449,852	$ 102,190

Operating activities

Net cash used in operating activities for the nine months ended September 30, 2021 was $68.1 million, consisting primarily of our net loss of $305.9 million, a decrease in accounts payable of $1.3 million and noncash items including an increase in the fair value of a non-controlling equity investment of $22.0 million and a change in fair value of contingent consideration liabilities of $9.6 million. These uses of cash were offset in part by an increase in deferred revenue of $49.2 million, primarily related to the Apellis Agreement; an increase in operating lease liabilities of $15.2 million; an increase in accrued expenses and other liabilities of $2.8 million and a decrease in prepaid expenses and other current assets of $0.7 million and noncash items consisting primarily of in-process research and development expenses of $155.0 million, stock-based compensation expense of $28.1 million, change in fair value of derivative liabilities of $8.4 million, a change in operating lease ROU assets of $6.8 million and depreciation and amortization expense of $4.8 million.

Net cash used in operating activities for the nine months ended September 30, 2020 was $71.4 million, consisting primarily of our net loss of $99.1 million, an increase in prepaid expenses and other current assets of $3.7 million, a decrease in operating lease liabilities of $3.2 million; offset by an increase in accrued expenses and other liabilities of $4.2 million, and noncash charges consisting primarily of stock-based compensation expense of $8.6 million, change in fair value of derivative liabilities of $8.7 million, non-cash research and developmental license expense, net of $5.2 million, depreciation expense of $3.5 million, and change in operating lease ROU assets of $3.1 million.

Investing activities

For the nine months ended September 30, 2021, cash used in investing activities was primarily the net purchases of marketable securities of $183.8 million, and purchases of property and equipment of $33.4 million. We also received $0.6 million in net cash from our acquisition of Guide, after the payment of acquisition costs.

For the nine months ended September 30, 2020, cash used in investing activities was primarily the net purchases of marketable securities of $9.7 million, and purchases of property and equipment of $8.2 million.

Financing activities

Net cash provided by financing activities for the nine months ended September 30, 2021 consisted primarily of proceeds from equity offerings of $737.2 million and proceeds from the exercise of stock options of $7.7 million, offset in part by the payment of equity offering costs of $8.7 million and repayments of equipment financing liabilities of $1.6 million.

Net cash provided by financing activities for the nine months ended September 30, 2020 consisted primarily of proceeds from our IPO of $192.5 million, net of underwriting discounts, proceeds of $1.6 million from equipment financings, and proceeds from the exercise of stock options of $1.1 million, offset by the payment of equity offering costs of $1.7 million, and repayments of equipment financing liabilities of $1.2 million.

Funding requirements

Our operating expenses are expected to increase substantially as we continue to advance our portfolio of programs.

Specifically, our expenses will increase if and as we:

- continue our current research programs and our preclinical development of product candidates from our current research programs;
- seek to identify additional research programs and additional product candidates;
- initiate preclinical studies and clinical trials for any product candidates we identify and develop;
- maintain, expand, enforce, defend, and protect our intellectual property portfolio and provide reimbursement of third-party expenses related to our patent portfolio;
- seek marketing approvals for any of our product candidates that successfully complete clinical trials;

- establish a sales, marketing, and distribution infrastructure to commercialize any medicines for which we may obtain marketing approval;
- further develop our base editing platform;
- further develop delivery technology for our base editors, resulting from our acquisition of Guide;
- continue to hire additional personnel including research and development, clinical and commercial personnel;
- add operational, financial, and management information systems and personnel, including personnel to support our product development;
- acquire or in-license products, intellectual property, medicines and technologies; and
- build, maintain and operate a commercial-scale cGMP manufacturing facility.

We expect that our cash, cash equivalents and marketable securities at September 30, 2021 will enable us to fund our current and planned operating expenses and capital expenditures for at least the next 12 months. We have based these estimates on assumptions that may prove to be imprecise, and we may exhaust our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development our programs, we are unable to estimate the amounts of increased capital outlays and operating expenses associated with completing the research and development of our product candidates.

Our future funding requirements will depend on many factors including:

- the cost of continuing to build our base editing platform;
- the costs of acquiring licenses for the delivery modalities that will be used with our product candidates;
- the scope, progress, results, and costs of discovery, preclinical development, laboratory testing, manufacturing and clinical trials for the product candidates we may develop;
- the costs of preparing, filing, and prosecuting patent applications, maintaining and enforcing our intellectual property and proprietary rights, and defending intellectual property-related claims;
- the costs, timing, and outcome of regulatory review of the product candidates we may develop;
- the costs of future activities, including product sales, medical affairs, marketing, manufacturing, distribution, coverage and reimbursement for any product candidates for which we receive regulatory approval;
- the success of our license agreements and our collaborations;
- our ability to establish and maintain additional collaborations on favorable terms, if at all;
- the achievement of milestones or occurrence of other developments that trigger payments under any collaboration agreements we are a party to or may become a party to;
- the payment of success liabilities to Harvard and Broad Institute pursuant to the respective terms of the Harvard License Agreement and the Broad Institute License Agreement, should we choose to pay in cash;
- the extent to which we acquire or in-license products, intellectual property, and technologies;
- the costs of obtaining, building, operating and expanding our manufacturing capacity; and
- the impacts of the COVID-19 pandemic and our response to it.

A change in the outcome of any of these or other variables with respect to the development of any of our product candidates could significantly change the costs and timing associated with the development of that product candidate. Further, our operating plans may change in the future, and we may need additional funds to meet operational needs and capital requirements associated with such operating plans.

Until such time, if ever, as we can generate substantial revenues from the sale of our product candidates, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances, and licensing arrangements. We do not have any committed external source of funds. Debt financing, if available, may involve agreements that include restrictive covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures, or declaring dividends. In addition, debt financings would result in increased fixed payment obligations.

If we raise funds through additional collaborations, strategic alliances, or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs, or product candidates, or we may have to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce, or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves. We can give

no assurance that we will be able to secure such additional sources of funds to support our operations, or, if such funds are available to us, that such additional funding will be sufficient to meet our needs.

Contractual obligations

We enter into contracts in the normal course of business with contract research organizations and other vendors to assist in the performance of our research and development activities and other services and products for operating purposes. These contracts generally provide for termination on notice, and therefore are cancelable contracts and not included in the table of contractual obligations and commitments. During the nine months ended September 30, 2021, there were no material changes to our contractual obligations and commitments described under Management's Discussion and Analysis of Financial Condition and Results of Operations in the 2020 Form 10-K with the exception of the commitments as described below.

During the nine months ended September 30, 2021, we entered into the second phase of our April 2019 lease for office and laboratory space to be built. The minimum of undiscounted lease payments due under the second phase of this lease is $42.7 million.

In May 2021, the first success payment measurements under the Harvard License Agreement and Broad License Agreement occurred and success payments to Harvard and Broad Institute were calculated to be $15.0 million and $15.0 million, respectively. We elected to make each payment in shares of our common stock and issued 174,825 shares of our common stock to each of Harvard and Broad Institute to settle these liabilities in June 2021.

Off-balance sheet arrangements

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

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to market risk related to changes in interest rates. As of September 30, 2021, we had cash, cash equivalents, and marketable securities of $933.4 million, which consisted of cash, money market funds, commercial paper and corporate notes, U.S. Treasury securities and government securities. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because our investments are in short-term marketable securities. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, we believe an immediate 10% change in interest rates would not have a material effect on the fair market value of our investment portfolio. We have the ability to hold our investments until maturity, and therefore, we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a change in market interest rates on our investment portfolio.

We are not currently exposed to significant market risk related to changes in foreign currency exchange rates; however, we do contract with vendors that are located outside of the United States and may be subject to fluctuations in foreign currency exchange rates. We may enter into additional contracts with vendors located outside of the United States in the future, which may increase our foreign currency exchange risk.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and our principal financial officer, evaluated, as of the end of the period covered by this Quarterly Report on Form 10-Q, the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it 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. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Based on the evaluation of our disclosure controls and procedures as of September 30, 2021, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures as of such date are effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

We continuously seek to improve the efficiency and effectiveness of our internal controls. This results in refinements to processes throughout our company. There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and

15d-15(f) under the Exchange Act) during the quarter ended September 30, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

We are not currently subject to any material legal proceedings.

Item 1A. Risk Factors.

Investing in our common stock involves a high degree of risk. For a detailed discussion of the risks that affect our business, please refer to the sections titled "Risk Factors Summary" and "Item 1A. Risk Factors" in the 2020 Form 10-K and "Item 1A. Risk Factors" in our Quarterly Report on Form 10-Q for the quarters ended March 31, 2021 and June 30, 2021. The COVID-19 pandemic may also have the effect of heightening many of the other risks described in the section titled "Item 1A. Risk Factors" in each of the 2020 Form 10-K and our quarterly reports, such as risks related to our need to raise additional funding, fluctuation of our quarterly financial results, and our ability to obtain regulatory approvals for our product candidates.

The risk factors set forth below represent new risk factors or those containing changes to the similarly titled risk factor included in "Item 1.A Risk Factors" of the 2020 Form 10-K.

If any of the product candidates we may develop, or the delivery modes we rely on to administer them, cause serious adverse events, undesirable side effects, or unexpected characteristics, such events, side effects or characteristics could delay or prevent regulatory approval of the product candidates, limit the commercial potential, or result in significant negative consequences following any potential marketing approval.

We have not evaluated any product candidates in human clinical trials. Moreover, there have been only a limited number of clinical trials involving the use of gene editing technologies and none involving base editing technology similar to our technology. It is impossible to predict when or if any product candidates we may develop will prove safe in humans. In the genetic medicine field, there have been several significant adverse events from gene therapy treatments in the past, including reported cases of leukemia, serious blood disorders and death. There can be no assurance that base editing technologies, or components of our product candidates or methods of delivery, will not cause undesirable side effects, as improper editing of a patient's DNA and other effects could lead to lymphoma, leukemia, or other cancers, other serious conditions or syndromes or other aberrantly functioning cells.

A significant risk in any base editing product candidate is that "off-target" edits may occur, which could cause serious adverse events, undesirable side effects or unexpected characteristics. For example, Erwei Zuo et al. reported that cytosine base editors generated substantial off-target edits, that is, edits in unintended locations on the DNA, when tested in mouse embryos. Such unintended edits are referred to as "spurious deamination." We cannot be certain that off-target editing will not occur in any of our planned or future clinical studies, and the lack of observed side effects in preclinical studies does not guarantee that such side effects will not occur in human clinical studies. We have developed assays that can detect off-target edits, even when such edits occur at very low frequencies. Using these assays, we have observed off-target edits in our base editing product candidates. As the sensitivity of these assays increases, it is possible that we will continue to detect more such off-target edits. While we do not believe that the off-target edits we have observed to date have had a material adverse impact on the safety or benefit of our product candidates, if, in the future, we detect off-target edits for a product candidate that negatively impact safety or efficacy, our ability to develop the product candidate as a therapeutic could be adversely affected. There is also the potential risk of delayed adverse events following exposure to base editing therapy due to the permanence of edits to DNA or due to other components of product candidates used to carry the genetic material. Further, because base editing makes a permanent change, the therapy cannot be withdrawn, even after a side effect is observed. In addition, Rees et al. and Grunewald et al. have reported that the deaminases we currently use in our C base editors and our A base editors for use in DNA base editing also cause unintended mutations in RNA for as long as the editor is present in the cell.

Although we and others have demonstrated the ability to engineer base editors to improve the specificity of their edits in a laboratory setting, we cannot be sure that our engineering efforts will be effective in any product candidates that we may develop. For example, we might not be able to engineer an editor to make the desired change or a by-stander edit could diminish the effectiveness of an edit that we make.

In certain rare DNA sequence contexts, where more than one edit occurs on a contiguous piece of DNA, the repair of two or more nicks may lead to a deletion. For example, in our BEAM-101 program, where we are simultaneously editing two positions in the promoters of the HBG2 and HBG1 genes, which share >99% sequence identity and are contiguous due to a gene duplication event, we observed a 5 kb deletion in HBG2 at single digit percentages in animal studies. We do not believe that such a deletion represents a safety or efficacy concern because healthy individuals, including those with hereditary persistence of fetal hemoglobin, with naturally-occurring deletions at this locus, including some as large as 13 kb, have been documented. However, if we were to observe deletions that have a negative effect on HbF upregulation or on other important cellular attributes, our ability to develop BEAM-101 as a therapeutic could be adversely affected.

In certain of our programs, we plan to use LNPs to deliver our base editors. LNPs have been shown to induce oxidative stress in the liver at certain doses, as well as initiate systemic inflammatory responses that can be fatal in some cases. While we aim to continue to optimize our LNPs, there can be no assurance that our LNPs will not have undesired effects. Our LNPs could contribute, in whole or in part, to one or more of the following: immune reactions; infusion reactions; complement reactions; opsonization reactions; antibody reactions including IgA, IgM, IgE or IgG or some combination thereof; or reactions to the PEG from some lipids or PEG otherwise associated with the LNP. Certain aspects of our investigational medicines may induce immune reactions from either the mRNA or the lipid as well as adverse reactions within liver pathways or degradation of the mRNA or the LNP, any of which could lead to significant adverse events in one or more of our future clinical trials. Many of these types of side effects have been seen for legacy LNPs. There may be uncertainty as to the underlying cause of any such adverse event, which would make it difficult to accurately predict side effects in future clinical trials and would result in significant delays in our programs.

Our viral vectors including AAV or lentiviruses, which are relatively new approaches used for disease treatment, also have known side effects, and for which additional risks could develop in the future. In past clinical trials that were conducted by others with non-AAV vectors, several significant side effects were caused by gene therapy treatments, including reported cases of leukemia and death. Other potential side effects could include an immunologic reaction and insertional oncogenesis, which is the process whereby the insertion of a functional gene near a gene that is important in cell growth or division results in uncontrolled cell division, which could potentially enhance the risk of malignant transformation. If the vectors we use demonstrate a similar side effect, or other adverse events, we may be required to halt or delay further clinical development of any potential product candidates. Furthermore, the FDA has stated that lentiviral vectors possess characteristics that may pose high risks of delayed adverse events. Such delayed adverse events may occur in other viral vectors, including AAV vectors, at a lower rate.

In addition to side effects and adverse events caused by our product candidates, the conditioning administration process or related procedures which may be used in our electroporation pipeline also can cause adverse side effects and adverse events. Additionally, we have and may continue to collaborate with third parties to develop alternative conditioning regimes. We cannot predict if alternative conditioning regimes will be compatible with our product candidates. If in the future we are unable to demonstrate that such adverse events were caused by the conditioning regimens used, or administration process or related procedure, the FDA, the European Commission, EMA or other regulatory authorities could order us to cease further development of, or deny or limit approval of, our product candidates for any or all target indications. Even if we are able to demonstrate that adverse events are not related to the drug product or the administration of such drug product, such occurrences could affect patient recruitment, the ability of enrolled patients to complete the clinical trial, or the commercial viability of any product candidates that obtain regulatory approval.

If any product candidates we develop are associated with serious adverse events, undesirable side effects, or unexpected characteristics, we may need to abandon their development or limit development to certain uses or subpopulations in which the serious adverse events, undesirable side effects or other characteristics are less prevalent, less severe, or more acceptable from a risk-benefit perspective, any of which would have a material adverse effect on our business, financial condition, results of operations, and prospects. Many product candidates that initially showed promise in early stage testing for treating cancer or other diseases have later been found to cause side effects that prevented further clinical development of the product candidates.

If in the future we are unable to demonstrate that any of the above adverse events were caused by factors other than our product candidate, the FDA, the EMA or other regulatory authorities could order us to cease further development of, or deny approval of, any product candidates we are able to develop for any or all targeted indications. Even if we are able to demonstrate that all future serious adverse events are not product-related, such occurrences could affect patient recruitment or the ability of enrolled patients to complete the trial. Moreover, if we elect, or are required, to delay, suspend or terminate any clinical trial of any product candidate we may develop, the commercial prospects of such product candidates may be harmed and our ability to generate product revenues from any of these product candidates may be delayed or eliminated. Any of these occurrences may harm our ability to identify and develop product candidates, and may harm our business, financial condition, result of operations, and prospects significantly.

Additionally, if we successfully develop a product candidate and it receives marketing approval, the FDA could require us to adopt a Risk Evaluation and Mitigation Strategy, or REMS, to ensure that the benefits of treatment with such product candidate outweighs the risks for each potential patient, which may include, among other things, a medication guide outlining the risks of the product for distribution to patients, a communication plan to health care practitioners, extensive patient monitoring, or distribution systems and processes that are highly controlled, restrictive, and more costly than what is typical for the industry. Furthermore, if we or others later identify undesirable side effects caused by any product candidate that we develop, several potentially significant negative consequences could result, including:

- regulatory authorities may suspend or withdraw approvals of such product candidate;
- regulatory authorities may require additional warnings on the label or limit the approved use of such product candidate;
- we may be required to conduct additional clinical trials;

- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of any product candidates we may identify and develop and could have a material adverse effect on our business, financial condition, and results of operations.

Our owned patent applications and in-licensed patents and patent applications and other intellectual property may be subject to priority disputes or to inventorship disputes and similar proceedings. If we or our licensors are unsuccessful in any of these proceedings, we may be required to obtain licenses from third parties, which may not be available on commercially reasonable terms or at all, or to cease the development, manufacture, and commercialization of one or more of the product candidates we may develop, which could have a material adverse impact on our business.

Although we have an option to exclusively license certain patents and patent applications directed to Cas9 and Cas12a from Editas, who in turn has licensed such patents from various academic institutions including the Broad Institute, we do not currently have a license to such patents and patent applications. Certain of the U.S. patents and one U.S. patent application to which we hold an option are co-owned by the Broad Institute and MIT, and in some cases co-owned by the Broad Institute, MIT, and Harvard, which we refer to together as the Boston Licensing Parties, and were involved in U.S. interference No. 106,048 with one U.S. patent application co-owned by the University of California, the University of Vienna, and Emmanuelle Charpentier, which we refer to together as the University of California. On September 10, 2018, the Court of Appeals for the Federal Circuit, or the CAFC, affirmed the Patent Trial and Appeal Board of the USPTO's, or PTAB's, holding that there was no interference-in-fact. An interference is a proceeding within the USPTO to determine priority of invention of the subject matter of patent claims filed by different parties.

On June 24, 2019, the PTAB declared an interference (U.S. Interference No. 106,115) between 10 U.S. patent applications ((U.S. Serial Nos. 15/947,680; 15/947,700; 15/947,718; 15/981,807; 15/981,808; 15/981,809; 16/136,159; 16/136,165; 16/136,168; and 16/136,175) that are co-owned by the University of California, and 13 U.S. patents and one U.S. patent application (U.S. Patent Nos. 8,697,359; 8,771,945; 8,795,965; 8,865,406; 8,871,445; 8,889,356; 8,895,308; 8,906,616; 8,932,814; 8,945,839; 8,993,233; 8,999,641; and 9,840,713, and U.S. Serial No. 14/704,551)) that are co-owned by the Boston Licensing Parties, which we have an option to under the Editas License Agreement. In the declared interference, the University of California has been designated as the junior party and the Boston Licensing Parties have been designated as the senior party.

As a result of the declaration of interference, an adversarial proceeding in the USPTO before the PTAB has been initiated, which is declared to ultimately determine priority, specifically and which party was first to invent the claimed subject matter. Following oral arguments on the parties' motions in May 2020, the PTAB issued a decision in September 2020, which included, in part, denying the Boston Licensing Parties motion that the University of California should be estopped in the current proceeding by the PTAB's decision in the prior interference proceeding between the parties (No. 106,048), finding that the Boston Licensing Parties remain the senior party in the proceeding, and holding that the interference will proceed to the second, priority phase. An interference is typically divided into two phases. The first phase is referred to as the motions or preliminary motions phase while the second is referred to as the priority phase. In the first phase, each party may raise issues including but not limited to those relating to the patentability of a party's claims based on prior art, written description, and enablement. A party also may seek an earlier priority benefit or may challenge whether the declaration of interference was proper in the first place. Priority, or a determination of who first invented the commonly claimed invention, is determined in the second phase of an interference. Although we cannot predict with any certainty how long the priority phase will actually take, it may take approximately a year or longer before a decision is made by the PTAB. The 10 University of California patent applications and the 13 U.S. patents and one U.S. patent application co-owned by the Boston Licensing Parties involved in U.S. Interference No. 106,115 generally relate to CRISPR/Cas9 systems or eukaryotic cells comprising CRISPR/Cas9 systems having fused or covalently linked RNA and the use thereof in eukaryotic cells. There can be no assurance that the U.S. interference will be resolved in favor of the Boston Licensing Parties. If the U.S. interference resolves in favor of University of California, or if the Boston Licensing Parties' patents and patent application are narrowed, invalidated, or held unenforceable, we may lose the ability to license the optioned patents and patent application and our ability to commercialize our product candidates may be adversely affected if we cannot obtain a license to relevant third party patents that cover our product candidates. We may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be nonexclusive, thereby giving our competitors and other third parties access to the same technologies licensed to us, and it could require us to make substantial licensing and royalty payments. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, we may be unable to commercialize our base editing platform technology or product candidates or such commercialization efforts may be significantly delayed, which could in turn significantly harm our business.

We or our licensors may be subject to similar interferences in the future with the same risks as described above. For example, on December 14, 2020, the PTAB declared an interference (U.S. Interference No. 106,126) between 14 U.S. patents and two U.S. patent applications (U.S. Patent Nos. 8,697,359; 8,771,945; 8,795,965; 8,865,406; 8,871,445; 8,889,356; 8,889,418; 8,895,308; 8,906,616; 8,932,814; 8,945,839; 8,993,233; 8,999,641; and 9,840,713, and U.S. Serial Nos. 14/704,551 and 15/330,876) that are co-owned by the Boston Licensing Parties, which we have an option to under the Editas License Agreement, and one U.S. patent application (U.S. Serial Nos. 14/685,510) that is owned by Toolgen, Inc, or Toolgen. In the declared interference, the Boston Licensing Parties have

been designated as the junior party and Toolgen has been designated as the senior party. In March 2021, the PTAB issued an order on preliminary motions, granting, in part, and denying, in part, certain motions proposed by the Boston Licensing Parties and Toolgen. Although we cannot predict with any certainty how long the preliminary motions phase will actually take, it may take approximately a year or longer before a decision on the motions is made by the PTAB. The 14 U.S. patents and two U.S. patent applications co-owned by the Boston Licensing Parties involved in U.S. Interference No. 106,126 generally relate to CRISPR/Cas9 systems or eukaryotic cells comprising CRISPR/Cas9 systems having fused or covalently linked RNA and the use thereof in eukaryotic cells.

On June 21, 2021, the PTAB declared an interference (U.S. Interference No. 106,133) between the same 14 U.S. patents and two U.S. patent applications (U.S. Patent Nos. 8,697,359; 8,771,945; 8,795,965; 8,865,406; 8,871,445; 8,889,356; 8,889,418; 8,895,308; 8,906,616; 8,932,814; 8,945,839; 8,993,233; 8,999,641; and 9,840,713, and U.S. Serial Nos. 14/704,551 and 15/330,876, co-owned by the Boston Licensing Parties) as named in the interference with Toolgen, and one U.S. patent application (U.S. Serial Nos. 15/456,204) that is owned by Sigma-Aldrich Co., LLC, or Sigma-Aldrich. In the declared interference, the Boston Licensing Parties have been designated as the junior party and Sigma-Aldrich has been designated as the senior party. In September 2021, the PTAB issued an order on preliminary motions, granting, deferring, dismissing, or denying, certain motions proposed by the Boston Licensing Parties and Sigma-Aldrich.

We or our licensors may also be subject to claims that former employees, collaborators, or other third parties have an interest in our owned patent applications or in-licensed patents or patent applications or other intellectual property as an inventor or co-inventor. If we are unable to obtain an exclusive license to any such third-party co-owners' interest in such patent applications, such co-owners may be able to license their rights to other third parties, including our competitors. In addition, we may need the cooperation of any such co-owners to enforce any patents that issue from such patent applications against third parties, and such cooperation may not be provided to us.

If we or our licensors are unsuccessful in any interference proceedings or other priority, validity (including any patent oppositions), or inventorship disputes to which we or they are subject, we may lose valuable intellectual property rights through the loss of one or more of our owned, licensed, or optioned patents, or such patent claims may be narrowed, invalidated, or held unenforceable, or through loss of exclusive ownership of or the exclusive right to use our owned or in-licensed patents. In the event of loss of patent rights as a result of any of these disputes, we may be required to obtain and maintain licenses from third parties, including parties involved in any such interference proceedings or other priority or inventorship disputes. Such licenses may not be available on commercially reasonable terms or at all, or may be non-exclusive. If we are unable to obtain and maintain such licenses, we may need to cease the development, manufacture, and commercialization of one or more of the product candidates we may develop. The loss of exclusivity or the narrowing of our patent claims could limit our ability to stop others from using or commercializing similar or identical technology and product candidates. Even if we or our licensors are successful in an interference proceeding or other similar priority or inventorship disputes, it could result in substantial costs and be a distraction to management and other employees. Any of the foregoing could result in a material adverse effect on our business, financial condition, results of operations, or prospects.

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

Unregistered sales of equity securities

We did not sell any unregistered securities in the three months ended September 30, 2021.

Use of proceeds from registered securities

In February 2020, we closed our IPO in which we issued and sold 12,176,471 shares of our common stock, including 1,588,235 shares of common stock sold pursuant to the underwriters' full exercise of their option to purchase additional shares, at a public offering price of $17.00 per share, for aggregate gross proceeds of $207.0 million. We received approximately $188.3 million in net proceeds after deducting underwriting discounts and offering expenses payable by us. None of the underwriting discounts and commissions or offering expenses were paid directly or indirectly to any directors or officers of ours or their associates or to persons owning 10% or more of any class of equity securities or to any affiliates of ours. All of the shares issued and sold in the IPO were registered under the Securities Act pursuant to a Registration Statement on Form S-1 (File No. 333-233985), which was declared effective by the SEC on February 5, 2020, and a Registration Statement on Form S-1 MEF (File No. 333-236284) filed pursuant to Rule 462(b) of the Securities Act. The offering commenced on February 5, 2020 and did not terminate until the sale of all the shares offered.

Our use of the net offering proceeds through the date of the filing of this Quarterly Report on Form 10-Q, is consistent with the use of proceeds described in our final prospectus filed with the SEC pursuant to Rule 424(b)(4) on February 7, 2020, and there has been no material change in our planned use of the balance of the net proceeds from our IPO described in such prospectus.

Item 6. Exhibits.

Exhibit Number	Description of Exhibit	If Incorporated by Reference				Filed Herewith
		Form	File Number	Date of Filing	Exhibit Number	
3.1	Fourth Amended Certificate of Incorporation of Beam Therapeutics Inc.	8-K	001-39208	02/11/2020	3.1	
3.2	Amended and Restated By-laws of Beam Therapeutics Inc.	8-K	001-39208	02/11/2020	3.2	
4.1	Form of Purchase Agreement, dated as of January 16, 2021, among Beam Therapeutics Inc. and each purchaser party thereto.	8-K	001-39208	01/19/2021	10.1	
10.1	Amendment No. 1 to Sales Agreement, dated July 7, 2021, by and between Beam Therapeutics Inc. and Jefferies LLC.	8-K	001-39208	07/07/2021	1.1	
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document					X
101.CAL	Inline XBRL Taxonomy Calculation Linkbase Document					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document					X
101.LAB	Inline XBRL Taxonomy Label Linkbase Document					X
101.PRE	Inline XBRL Taxonomy Presentation Linkbase Document					X
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)					X

SIGNATURES

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

BEAM THERAPEUTICS INC.

Date: November 8, 2021 By: /s/ John Evans

John Evans
Chief Executive Officer
(Principal executive officer)

Date: November 8, 2021 By: /s/ Terry-Ann Burrell

Terry-Ann Burrell
Chief Financial Officer and Treasurer
(Principal financial and accounting officer)

Exhibit 31.1

CERTIFICATION 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

I, John Evans, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Beam Therapeutics 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(s) 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) 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

   (d) 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(s) 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.

Date: November 8, 2021

By: /s/ John Evans

John Evans
Chief Executive Officer
(Principal executive officer)

Exhibit 31.2

CERTIFICATION 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

I, Terry-Ann Burrell, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Beam Therapeutics 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(s) 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) 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

   (d) 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(s) 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.

Date: November 8, 2021

By: /s/ Terry-Ann Burrell
Terry-Ann Burrell

Chief Financial Officer
(Principal financial and accounting officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with this Quarterly Report of Beam Therapeutics Inc. (the "Company") on Form 10-Q for the period ending September 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 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; and

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

Date: November 8, 2021

By: /s/ John Evans

John Evans
Chief Executive Officer
(Principal executive officer)

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with this Quarterly Report of Beam Therapeutics Inc. (the "Company") on Form 10-Q for the period ending September 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 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; and

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

Date: November 8, 2021

By: /s/ Terry-Ann Burrell

Terry-Ann Burrell
Chief Financial Officer
(Principal financial and accounting officer)