UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 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: 001-40631

Caribou Biosciences, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**45-3728228**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
2929 7th Street, Suite 105 **Berkeley, California**	**94710**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (510) 982-6030

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

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

As of November 5, 2021, the registrant had 60,192,061 shares of common stock, $0.0001 par value per share, outstanding.

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PART I—FINANCIAL INFORMATION

Item 1. Financial Statements.

CARIBOU BIOSCIENCES, INC. AND ITS SUBSIDIARIES
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	$ 435,310	$ 15,953
Accounts receivable	578	150
Contract assets ($0 and $250 from related party, respectively)	1,853	1,328
Other receivables	5,354	3,682
Prepaid expenses and other current assets	5,952	3,193
Total current assets	449,047	24,306
INVESTMENTS IN EQUITY SECURITIES	7,626	7,626
PROPERTY AND EQUIPMENT—NET	4,477	3,502
OTHER ASSETS	810	612
TOTAL ASSETS	$ 461,960	$ 36,046
LIABILITIES, CONVERTIBLE PREFERRED STOCK, AND STOCKHOLDERS' EQUITY (DEFICIT)		
CURRENT LIABILITIES:		
Accounts payable ($0 and $500 to related party, respectively)	$ 3,482	$ 2,601
Accrued expenses and other current liabilities	13,930	8,973
Promissory note — PPP Loan	—	654
Deferred revenue	8,746	161
Total current liabilities	26,158	12,389
LONG-TERM LIABILITIES		
Deferred revenue, net of current portion ($100 and $50 from related party)	23,022	937
Deferred rent and lease incentive liability	1,833	925
Promissory note — PPP Loan, net of current portion	—	924
MSKCC success payments liability	6,238	2,654
Other liabilities	153	176
Deferred tax liabilities	155	155
Total liabilities	57,559	18,160
COMMITMENTS AND CONTINGENCIES (Note 9)		
CONVERTIBLE PREFERRED STOCK, par value $0.0001 per share; no shares authorized, issued, and outstanding at September 30, 2021; 7,766,582 shares authorized, issued, and outstanding at December 31, 2020	—	41,323
STOCKHOLDERS' EQUITY (DEFICIT)		
Common stock, par value $0.0001 per share 300,000,000 and 28,933,380 shares authorized at September 30, 2021 and December 31, 2020, respectively; 60,021,319 and 9,710,830 shares issued and outstanding at September 30, 2021 and December 31, 2020, respectively	6	1
Additional paid-in-capital	483,710	7,433
Accumulated deficit	(79,315)	(30,871)
Total stockholders' equity (deficit)	404,401	(23,437)
TOTAL LIABILITIES, CONVERTIBLE PREFERRED STOCK, AND STOCKHOLDERS' EQUITY (DEFICIT)	$ 461,960	$ 36,046

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

CARIBOU BIOSCIENCES, INC. AND ITS SUBSIDIARIES
Condensed Consolidated Statements of Operations and 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
Licensing and collaboration revenue (including $7,500 for nine months ended September 2020 from related party, and none for all other periods)	$ 3,977	$ 1,198	$ 7,039	$ 11,377
Operating expenses:				
Research and development	15,833	6,180	37,144	22,401
General and administrative	6,760	3,247	16,469	9,887
Total operating expenses	22,593	9,427	53,613	32,288
Loss from operations	(18,616)	(8,229)	(46,574)	(20,911)
Other income (expense):				
Interest income	22	4	72	157
Interest expense	—	(6)	(8)	(14)
Change in fair value of equity securities	—	—	—	(733)
Change in fair value of the MSKCC success payments liability	(2,403)	—	(3,584)	—
Gain on extinguishment of PPP Loan	—	—	1,584	—
Other income	23	85	66	431
Total other income (expense)	(2,358)	83	(1,870)	(159)
Net loss before provision for income taxes	(20,974)	(8,146)	(48,444)	(21,070)
Benefit from income taxes	—	213	—	1,465
Net loss and comprehensive loss	$ (20,974)	$ (7,933)	$ (48,444)	$ (19,605)
Net loss per share, basic and diluted	$ (0.46)	$ (0.93)	$ (2.20)	$ (2.31)
Weighted-average common shares outstanding, basic and diluted	45,889,646	8,537,965	22,052,944	8,470,019

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

CARIBOU BIOSCIENCES, INC. AND ITS SUBSIDIARIES
Condensed Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit)
(Unaudited)
(in thousands, except share amounts)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Retained Earnings (Accumulated Deficit)	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount			
BALANCE—December 31, 2020	7,766,582	$ 41,323	9,710,830	$ 1	$ 7,433	$ (30,871)	$ (23,437)
Issuance of Series C convertible preferred stock, net of issuance costs of $6.2 million	6,663,940	108,827	—	—	—	—	—
Issuance of common stock on exercise of options	—	—	584,614	—	564	—	564
Stock-based compensation expense	—	—	—	—	343	—	343
Net loss and comprehensive loss	—	—	—	—	—	(13,159)	(13,159)
BALANCE—March 31, 2021	14,430,522	$ 150,150	10,295,444	$ 1	$ 8,340	$ (44,030)	$ (35,689)
Stock-based compensation expense	—	—	—	—	593	—	593
Repayment of loan issued by stockholder	—	—	—	—	1,150	—	1,150
Issuance of common stock on exercise of options	—	—	1,037,979	—	566	—	566
Net loss and comprehensive loss	—	—	—	—	-	(14,311)	(14,311)
BALANCE—June 30, 2021	14,430,522	$ 150,150	11,333,423	$ 1	$ 10,649	$ (58,341)	$ (47,691)
Stock-based compensation expense	—	—	—	—	935	—	935
Conversion of convertible preferred stock into common stock	(14,430,522)	(150,150)	26,234,654	3	150,147	—	150,150
Issuance of common stock upon initial public offering, net of issuance costs of $28.6 million	—	—	21,850,000	2	321,018	—	321,020
Issuance of common stock on exercise of options	—	—	603,246	—	961	—	961
Net loss and comprehensive loss	—	—	—	—	—	(20,974)	(20,974)
BALANCE—September 30, 2021	—	$ —	60,021,323	$ 6	$ 483,710	$ (79,315)	$ 404,401
BALANCE—December 31, 2019	7,766,582	$ 41,323	8,839,205	$ 1	$ 4,025	$ 3,437	$ 7,463
Stock-based compensation expense	—	—	—	—	237	—	237
Net loss and comprehensive loss	—	—	—	—	—	(9,800)	(9,800)
BALANCE—March 31, 2020	7,766,582	$ 41,323	8,839,205	$ 1	$ 4,262	$ (6,363)	$ (2,100)
Stock-based compensation expense	—	—	—	—	286	—	286
Issuance of restricted stock awards	—	—	4,545	—	—	—	—
Issuance of common stock on exercise of options	—	—	50,358	—	21	—	21
Net loss and comprehensive loss	—	—	—	—	—	(1,872)	(1,872)
BALANCE—June 30, 2020	7,766,582	$ 41,323	8,894,108	$ 1	$ 4,569	$ (8,235)	$ (3,665)
Stock-based compensation expense	—	—	—	—	248	—	248
Issuance of common stock on exercise of options	—	—	75,468	—	139	—	139
Net loss and comprehensive loss	—	—	—	—	—	(7,933)	(7,933)
BALANCE—September 30, 2020	7,766,582	$ 41,323	8,969,576	$ 1	$ 4,956	$ (16,168)	$ (11,211)

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

CARIBOU BIOSCIENCES, INC. AND ITS SUBSIDIARIES
Condensed Consolidated Statements of Cash Flows
(Unaudited)
(in thousands)

	Nine Months Ended September 30,	
	2021	**2020**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (48,444)	$ (19,605)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	711	680
Loss on disposal of fixed assets	3	70
Change in fair value of equity securities	—	733
Non-cash consideration for licensing and collaboration revenue ($0 and $7,500 from related party, respectively)	—	(7,580)
Stock-based compensation expense	1,871	771
Change in fair value of MSKCC success payments liability	3,584	—
Acquired in-process research and development	1,000	425
Extinguishment of PPP Loan	(1,578)	—
Changes in operating assets and liabilities:		
Accounts receivable	(428)	4
Contract assets	(525)	170
Other receivables	(1,673)	147
Prepaid expenses and other current assets	(2,759)	1,487
Other assets	(151)	(19)
Accounts payable	848	(1,907)
Accrued expenses and other current liabilities	4,855	1,112
Deferred revenue, current and long-term	30,669	(667)
Deferred rent and lease incentive liability	909	23
Other liabilities	(22)	(431)
Deferred tax liabilities	—	(552)
Net cash used in operating activities	(11,130)	(25,139)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Proceeds from sale of equity securities	—	7,668
Purchases of property and equipment	(1,436)	(290)
Proceeds from sale of property and equipment	—	10
Payments to acquire in-process research and development	(1,000)	(425)
Net cash provided by (used in) investing activities	(2,436)	6,963
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from initial public offering of common stock, net of offering costs	321,020	—
Proceeds from issuance of Series C convertible preferred stock, net of issuance costs	108,827	—
Proceeds from exercise of stock options	2,091	160
Repayment of promissory note	1,150	—
Payments on capital lease	(119)	(81)
Proceeds from PPP Loan	—	1,574
Net cash provided by financing activities	432,969	1,653
NET INCREASE (DECREASE) IN CASH, CASH EQUIVALENTS, AND RESTRICTED CASH	419,403	(16,523)
CASH, CASH EQUIVALENTS, AND RESTRICTED CASH — BEGINNING OF PERIOD	15,953	41,070
CASH, CASH EQUIVALENTS, AND RESTRICTED CASH — END OF PERIOD	$ 435,356	$ 24,547
RECONCILIATION OF CASH, CASH EQUIVALENTS, AND RESTRICTED CASH		
Cash and cash equivalents	$ 435,310	$ 24,547
Restricted cash	46	—
CASH, CASH EQUIVALENTS, AND RESTRICTED CASH ON THE BALANCE SHEET	$ 435,356	$ 24,547
SUPPLEMENTAL CASH FLOW INFORMATION:		
Cash paid for income taxes	$ 11	$ 11
SUPPLEMENTAL SCHEDULE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:		
Acquisition of property and equipment included in accrued expenses and other current liabilities	$ 268	$ 27
Extinguishment of PPP Loan	$ 1,578	$ —
Non-cash consideration in exchange for licensing and collaboration revenue	$ —	$ 7,580
Conversion of convertible preferred stock to common stock at closing of initial public offering	$ 150,150	$ —

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

CARIBOU BIOSCIENCES, INC. AND ITS SUBSIDIARIES
Notes to Condensed Consolidated Financial Statements
(Unaudited)

1. Description of the Business, Organization, and Liquidity

Business and Organization

Caribou Biosciences, Inc. (the "Company" or "we") is a clinical-stage CRISPR genome-editing biotechnology company. We are developing an internal pipeline of off-the-shelf chimeric antigen receptor ("CAR") T cell ("CAR-T") and CAR-natural killer cell ("CAR-NK") therapies. The Company was incorporated in October 2011 as a Delaware corporation and is headquartered in Berkeley, California. The Company has four wholly-owned subsidiaries: Antler Holdco, LLC, incorporated in Delaware in April 2019; Microbe Holdco, LLC, incorporated in Delaware in June 2020; Arboreal Holdco, LLC, incorporated in Delaware in November 2020; and Biloba Holdco, LLC, incorporated in Delaware in April 2021. Another subsidiary, Caribou Therapeutics Holdco, LLC, was incorporated in Delaware in July 2014 and dissolved in December 2020. The Company's wholly-owned subsidiaries hold interests in our equity investments and do not have operating activities.

Initial Public Offering

On July 22, 2021, the Company's registration statement on Form S-1 (File No. 333-257604) relating to its initial public offering ("IPO") of common stock became effective. The IPO closed on July 27, 2021, at which time we issued 19,000,000 shares of our common stock at a price of $16.00 per share. On August 9, 2021, we issued and sold an additional 2,850,000 shares of our common stock to the IPO underwriters pursuant to the full exercise of their over-allotment option to purchase additional shares at the public offering price of $16.00 per share. We received an aggregate of $349.6 million in gross proceeds and approximately $321.0 million in net proceeds from the IPO after deducting underwriting discounts and commissions and offering costs. Upon closing of the IPO, all outstanding shares of our convertible preferred stock converted into 26,234,654 shares of our common stock.

In connection with the completion of our IPO, on July 27, 2021, our Certificate of Incorporation was amended and restated to provide for 300,000,000 authorized shares of common stock with a par value of $0.0001 per share and 10,000,000 authorized shares of preferred stock with a par value of $0.0001 per share.

Forward Stock Split

In July 2021, our board of directors (the "Board") and stockholders approved an amendment to our Certificate of Incorporation to effect a forward split of the shares of our outstanding common stock at a ratio of 1.818-for-1 (the "Forward Stock Split") effective as of July 15, 2021. The number of authorized shares was increased as a result of the Forward Stock Split, but the par values of the common stock and preferred stock were not adjusted. All references to common stock, options to purchase common stock, common stock share data, per share data, and related information contained in the financial statements have been retrospectively adjusted to reflect the effect of the Forward Stock Split for all periods presented.

Liquidity

We have incurred net operating losses and negative cash flows from operations since our inception and we had an accumulated deficit of $79.3 million as of September 30, 2021. During the nine months ended September 30, 2021, we incurred a net loss of $48.4 million and used $11.1 million of cash in operating activities. We expect to continue to incur substantial losses, and our ability to achieve and sustain profitability will depend on the successful development, approval, and commercialization of our product candidates and on our achievement of sufficient revenue to support our cost structure. We may never achieve profitability and, unless and until we do, we will need to continue to raise additional capital. Our management expects that existing cash and cash equivalents of $435.3 million as of September 30, 2021, including the IPO net proceeds of $321.0 million, will be sufficient to fund our current operating plan for at least the next 12 months from the date of issuance of our condensed consolidated financial statements.

2. Summary of Significant Accounting Policies

There have been no changes to the significant accounting policies disclosed in Note 2 to the annual consolidated financial statements for the years ended December 31, 2019 and 2020 included in our final prospectus for our IPO ("Final Prospectus") except as set forth below.

Basis of Presentation and Principles of Consolidation

The accompanying condensed consolidated financial statements include the accounts of Caribou Biosciences, Inc. and its wholly-owned subsidiaries and have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") and the requirements of the SEC for interim reporting. As permitted under those rules, certain footnotes or other financial information that are normally required by U.S. GAAP may be condensed or omitted. Our condensed consolidated financial statements have been prepared on the same basis as the annual consolidated financial statements included in our Final Prospectus, except as noted below.

In the opinion of our management, the information furnished in our condensed consolidated financial statements reflects all adjustments, all of which are of a normal and recurring nature, necessary for a fair presentation of the financial position and results of operations for the reported interim periods. We consider events or transactions that occur after the balance sheet date but before the financial statements are issued to provide additional evidence relative to certain estimates or to identify matters that require additional disclosure. The results of operations for interim periods are not necessarily indicative of results to be expected for the full year or any other interim period.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with U.S. GAAP requires our management to make estimates and assumptions that affect the reported amounts of assets and liabilities; the disclosure of contingent assets and liabilities at the date of our condensed consolidated financial statements; and the reported amounts of revenue, income, and expenses during the reporting period. On an ongoing basis, we evaluate our estimates and assumptions, including those related to revenue recognition, common stock valuation, stock-based compensation expense, accrued expenses related to research and development activities, valuation of the MSKCC success payments liability, and income taxes. Our management bases its estimates on historical experience and on various other assumptions that they believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ materially from those estimates.

Segments

We operate and manage our business as one reportable and operating segment, which is the business of developing an internal pipeline of off-the-shelf CAR-T and CAR-NK cell therapies. Our chief executive officer, who is the chief operating decision maker, reviews financial information on an aggregate basis for allocating resources and evaluating financial performance. All long-lived assets are maintained in the United States.

Concentrations of Credit Risk and Other Uncertainties

Financial instruments that potentially subject us to concentration of credit risk consist of cash and cash equivalents, accounts receivable, contract assets, other receivables, and investments in equity securities. Substantially all our cash and cash equivalents were deposited in accounts at one financial institution, and account balances may at times exceed federally insured limits. We believe the financial institution to be of high credit quality.

Licensees that represent 10% or more of our revenue and accounts receivable and contract assets were as follows:

	Revenue		Revenue		Accounts Receivable and Contract Assets	
	Three Months Ended		Nine Months Ended			
	September 30, 2021	September 30, 2020	September 30, 2021	September 30, 2020	As of September 30, 2021	As of December 31, 2020
Licensee A	14.0%	38.8%	23.2%	10.5%	23.1%	40.6%
Licensee B	*	*	*	*	*	13.2%
Licensee C, related party	*	*	*	*	*	16.9%
Licensee D	*	*	*	*	*	10.1%
Licensee E	57.2%	*	39.5%	*	50.4%	*
Licensee F, related party	*	*	*	65.9%	*	*
Licensee G	*	24.0%	*	*	*	*
Licensee H	*	20.4%	*	*	*	*
Total	71.2%	83.2%	62.7%	76.4%	73.5%	80.8%

*Less than 10%

We monitor economic conditions to identify facts or circumstances that may indicate if any of our accounts receivable are not collectible or if the contract assets should be impaired. No allowance for doubtful accounts was recorded as of September 30, 2021 or December 31, 2020.

Restricted Cash

We define restricted cash as cash and cash equivalents that cannot be withdrawn or used for general operating activities. Our restricted cash consists of a letter of credit with a financial institution related to our workers' compensation insurance, which renews annually. As of September 30, 2021, we had less than $0.1 million of restricted cash, which was recorded in other assets in our condensed consolidated balance sheets. We did not have any restricted cash as of December 31, 2020.

Patent Costs

We expense costs as incurred for filing, prosecuting, and maintaining patents and patent applications, including certain of the patents and patent applications that we license from third parties. We classify such costs as general and administrative expenses in our condensed consolidated statements of operations and comprehensive loss. In addition, we are entitled to receive reimbursement from third parties for a portion of the filing, prosecution, and maintenance costs for certain patents and patent applications. We accrue for these reimbursements as the respective expenses are incurred, and we classify such reimbursements as a reduction of general and administrative expenses. During each of the three months ended September 30, 2021 and 2020, we incurred gross patent costs of $2.8 million. During the nine months ended September 30, 2021 and 2020, we incurred gross patent costs of $10.3 million and $7.3 million, respectively. During the three months ended September 30, 2021 and 2020, we recorded $1.6 million and $1.5 million, respectively, of patent cost reimbursements as a credit to general and administrative expenses. During the nine months ended September 30, 2021 and 2020, we recorded $6.1 million and $3.7 million, respectively, of patent cost reimbursements as a credit to general and administrative expenses.

Recent Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (the "FASB") or other standard-setting bodies and adopted by us as of the specified effective date.

New Accounting Pronouncements Not Yet Adopted

In February 2016, the FASB issued Accounting Standards Update ("ASU") No. 2016-02, *Leases (Topic 842)*. This ASU requires a lessee to recognize in its statement of financial position a liability to make lease payments (the lease liability) and a right-to-use asset representing its right to use the underlying asset for the lease term. We may elect not to apply Topic 842 to short-term leases with a term of 12 months or less. This ASU is effective for fiscal years beginning after December 15, 2021 and interim periods within fiscal years beginning after December 15, 2022, with early adoption permitted. We are in the process of completing a qualitative and quantitative assessment of our lease portfolio and implementing new processes and controls to account for leases in accordance with the new standard. We believe the most significant changes to our financial statements will relate to the recognition of right-of-use assets and offsetting lease liabilities for operating leases in the consolidated balance sheet. We do not expect the standard to have a material impact on cash flows or results of operations.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses: Measurement of Credit Losses on Financial Instruments (Topic 326)*. This ASU provides guidance on the measurement of credit losses for most financial assets and certain other instruments that are not measured at fair value through net income. ASU 2016-13 replaces the current incurred loss impairment approach with a methodology to reflect expected credit losses and requires consideration of a broader range of reasonable and supportable information to explain credit loss estimates. This ASU is to be applied on a modified retrospective approach and is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2022, and interim reporting periods within fiscal years beginning after December 15, 2023. Early adoption is permitted for all entities for fiscal years beginning after December 15, 2018, and interim periods therein. We are currently evaluating the impact of adoption of this ASU on our condensed consolidated financial statements.

3. Fair Value Measurements and Fair Value of Financial Instruments

The authoritative guidance on fair value measurements establishes a three-tier fair value hierarchy for disclosure of fair value measurements as follows:

Level 1—Quoted prices in active markets for identical assets or liabilities.

Level 2—Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

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

Assets and liabilities measured at fair value are classified in their entireties based on the lowest level of input that is significant to the fair value measurement. Our assessment of the significance of a particular input to the fair value measurement in its entirety requires our management to make judgments and consider factors specific to the asset or liability.

Our financial instruments consist of Level 1 and Level 3 financial instruments. Level 1 financial instruments are comprised of money market mutual funds. Level 3 financial instruments are comprised of the success payments liability related to the Exclusive License Agreement (the "MSKCC Agreement"), dated November 13, 2020, by and between us and Memorial Sloan Kettering Cancer Center ("MSKCC").

The following table sets forth our financial instruments that were measured at fair value on a recurring basis by level within the fair value hierarchy (in thousands):

	Fair Value Measurements as of September 30, 2021			
	Total	Level 1	Level 2	Level 3
Assets:				
Money market investments (included in cash and cash equivalents)	$ 435,310	$ 435,310	$ -	$ -
Total	$ 435,310	$ 435,310	$ -	$ -
Liabilities:				
MSKCC success payments liability	$ 6,238	$ -	$ -	$ 6,238
Total	$ 6,238	$ -	$ -	$ 6,238

	Fair Value Measurements as of December 31, 2020			
	Total	Level 1	Level 2	Level 3
Assets:				
Money market investments (included in cash and cash equivalents)	$ 15,953	$ 15,953	$ -	$ -
Total	$ 15,953	$ 15,953	$ -	$ -
Liabilities:				
MSKCC success payments liability	$ 2,654	$ -	$ -	$ 2,654
Total	$ 2,654	$ -	$ -	$ 2,654

The following table sets forth a summary of the changes in the fair value of our Level 3 financial liability (in thousands):

	MSKCC Success Payments Liability
Balance at December 31, 2020	$ 2,654
Change in fair value	3,584
Balance at September 30, 2021	$ 6,238

We recorded a $2.4 million change and a $3.6 million change in fair value of the MSKCC success payments liability in other income (expense) in our condensed consolidated statements of operations and comprehensive loss for the three and nine months ended September 30, 2021, respectively. Our liability for the MSKCC success payments is carried at fair value and changes are recognized as expense or income as part of "other income (expense)" until the success payments liability is paid or expires (Note 4).

We utilize a Monte Carlo simulation model that models the future movement of stock prices based on several key variables. This model requires significant estimates and assumptions in determining the estimated success payments liability under the MSKCC Agreement and associated expense or income at each balance sheet date based on changes in the estimated success payments liability. The assumptions used to calculate the fair value of the MSKCC success payments are subject to a significant amount of judgment including the expected volatility that was estimated using available information about the historical volatility of stocks of publicly traded companies that are similar to us, the estimated term, and the estimated number and timing of valuation measurement dates. The table below summarizes key assumptions used in the valuation of MSKCC success payments liability:

	As of September 30, 2021	As of December 31, 2020
Fair value of common stock	$ 23.870	$ 5.462
Risk-free interest rate	1.52%	0.93%
Expected volatility	80%	80%
Probability	11.9% to 26.7%	4.4% to 13.4%
Expected term (years)	4.0 to 4.8	4.7 to 5.7

The computation of expected volatility was estimated using a combination of available information about the historical volatility of stocks of similar publicly traded companies for a period matching the expected term assumption and the historical and implied volatility of our stock. The risk-free interest rate, expected volatility, and expected term assumptions depend on the estimated timing of our phase 1 clinical trial and U.S. Food and Drug Administration ("FDA") approval of one of our product candidates. In addition, we incorporated the estimated number and timing of valuation measurement dates in the calculation of the MSKCC success payments liability.

A small change in the assumptions and other inputs, such as the fair value of our common stock, may have a relatively large change in the estimated valuation and associated liability and expense or income.

The carrying value of the promissory note pursuant to the Paycheck Protection Program ("PPP") administered by the Small Business Administration (the "SBA") under the Coronavirus Aid, Relief and Economic Security Act (the "CARES Act") approximates its fair value (Note 8).

4. Significant Agreements

The Regents of the University of California/University of Vienna

We entered into an Exclusive License Agreement, dated April 16, 2013, as amended (the "UC/Vienna Agreement") with The Regents of the University of California ("UC") and the University of Vienna ("Vienna") (together, "UC/Vienna") wherein UC/Vienna granted us an exclusive worldwide license, with the right to sublicense, in all fields to the foundational CRISPR-Cas9 patent family co-owned by UC, Vienna, and Dr. Emmanuelle Charpentier (the "CVC IP"). Dr. Charpentier has not granted us any rights, either directly or indirectly. The UC/Vienna Agreement continues until the last-to-expire patent or last-to-be-abandoned patent application within the CVC IP; provided, however, that UC/Vienna may terminate the UC/Vienna Agreement upon the occurrence of certain events and we may terminate the UC/Vienna Agreement at our sole discretion upon written notice. Without patent term adjustment or patent term extension, the CVC IP will expire in 2033. The UC/Vienna Agreement includes certain diligence milestones that we must meet. For products and services sold by us that are covered by the CVC IP, we will owe low- to mid-single-digit percent royalties on net sales, subject to a minimum annual royalty. Prior to the time that we are selling products, we owe UC/Vienna an annual license maintenance fee. We may owe UC/Vienna up to $3.4 million in certain regulatory and clinical milestone payments in the field of human therapeutics and diagnostics for products that are covered by the CVC IP and developed by us, an affiliate, or a sublicensee. Additionally, we pay UC/Vienna a specified percentage of sublicensing revenue, including cash and equity, we receive from sublicensing the CVC IP, subject to certain exceptions. If we include intellectual property owned or controlled by us in a sublicense to the CVC IP, we pay UC/Vienna a low double-digit percentage of sublicensing revenues received under the sublicense. If we do not include intellectual property owned or controlled by us in a sublicense to the CVC IP, we pay UC/Vienna 50% of sublicensing revenues received under the sublicense. To date, we have entered into over 20 sublicensing agreements in a variety of fields such as human therapeutics, forestry, agriculture, research reagents, transgenic animals, certain livestock targets, internal research,

bioproduction, cell lines, and microbial applications that include the CVC IP as well as other Cas9 intellectual property owned or controlled by us. We are obligated to reimburse UC for its prosecution and maintenance costs of the CVC IP.

For the three months ended September 30, 2021 and 2020, we incurred $0.3 million and $0.1 million, respectively, for payments we owe to UC related to sublicensing revenues, which were recorded in research and development expenses in our condensed consolidated statements of operations and comprehensive loss. For the nine months ended September 30, 2021 and 2020, we incurred $1.3 million and $0.6 million, respectively, for payments we owe to UC related to sublicensing revenues, which were recorded in research and development expenses in our condensed consolidated statements of operations and comprehensive loss.

For the three months ended September 30, 2021 and 2020, we reimbursed UC $2.4 million and $2.3 million, respectively, for prosecution and maintenance costs of the CVC IP, which were recorded in general and administrative expenses in our condensed consolidated statements of operations and comprehensive loss. For the nine months ended September 30, 2021 and 2020, we reimbursed UC $8.9 million and $6.0 million, respectively, for prosecution and maintenance costs of the CVC IP, which were recorded in general and administrative expenses in our condensed consolidated statements of operations and comprehensive loss.

On December 15, 2016, we entered into a Consent to Assignments, Licensing and Common Ownership and Invention Management Agreement ("IMA") relating to the CVC IP. Under the IMA, CRISPR Therapeutics AG ("CRISPR") reimburses us 50% of the amounts we reimburse UC for patent prosecution and maintenance costs of the CVC IP. For the three months ended September 30, 2021 and 2020, CRISPR reimbursed us $1.2 million and $1.1 million, respectively, which were recorded as reductions of general and administrative expenses in our condensed consolidated statements of operations and comprehensive loss. For the nine months ended September 30, 2021 and 2020, CRISPR reimbursed us $4.4 million and $2.6 million, respectively, which were recorded as reductions of general and administrative expenses in our condensed consolidated statements of operations and comprehensive loss.

Memorial Sloan Kettering Cancer Center

Under the MSKCC Agreement, we exclusively licensed know-how, biological materials, and intellectual property relating to humanized single-chain variable fragments targeting CD371 for use in T cells, NK cells, and genome-edited induced pluripotent stem cells for allogeneic CD371-targeted cell therapy (currently used in our CB-012 product candidate). We paid MSKCC an upfront payment of $0.5 million in cash and $2.1 million in stock. For each licensed CD371 product, we may owe potential clinical, regulatory, and commercial milestone payments totaling $112.0 million. In addition, in the event we, our affiliates, or sublicensees, receive regulatory approval for a licensed CD371 product, we will owe low- to mid-single-digit percent royalties on net sales by us, our affiliates, and our sublicensees. Our license from MSKCC includes the right to sublicense through multiple tiers and we will owe MSKCC a percentage of upfront cash or equity received from our sublicensees. The percentage owed decreases as our licensed CD371 product candidate moves through development, starting at a low-double-digit percentage if clinical trials have not yet begun and decreasing to a mid-single-digit percentage if our licensed CD371 product candidate is in later clinical trial stages. We are also responsible for paying a percentage of licensed patent costs. The MSKCC Agreement includes certain diligence milestones that we must meet by specified dates, which dates may be extended upon payment of additional fees.

MSKCC is entitled to certain success payments if our common stock fair value increases by certain multiples of increasing value based on a comparison of the fair market value of our common stock with the split-adjusted initial stock price of our Series B convertible preferred stock financing of $5.1914 per share, as adjusted for any future stock splits (the "Initial Share Price"), during a specified time interval. Under the MSKCC Agreement, as a publicly traded company, our common stock fair value is determined by any given 45-day volume-weighted average trading price. At our option, success payments to MSKCC may be made in cash or common stock. The relevant time interval commences when the first patient is dosed with a licensed CD371 product candidate in the first phase 1 clinical trial and ends upon the earlier of the third anniversary from the approval of our, or our affiliate's, or sublicensee's, biologics license application by the FDA or 10 years from the date the first patient was dosed with a licensed CD371 product candidate in the first phase 1 clinical trial. The aggregate success payments will not exceed $35.0 million. Additionally, if we undergo a change of control during the specified time interval, we may owe a change of control payment, depending upon the increase in our stock price due to the change of control and also to what extent success payments have already been paid by us to MSKCC. In no event will the combination of success payments and the change of control payment owed to MSKCC exceed $35.0 million.

The following table summarizes the amounts of the MSKCC success payments:

Multiple of Initial Share Price giving rise to a success payment	5x	10x	15x
MSKCC success payments (in millions)	$ 10.0	$ 10.0	$ 15.0

We may terminate the MSKCC Agreement upon 90 calendar days' prior written notice to MSKCC. MSKCC may terminate in the event of our uncured material breach, bankruptcy, or criminal activity. In the event that MSKCC materially breaches the MSKCC Agreement in certain circumstances (*e.g.*, granting a third party a license in our field) then, during the time of such uncured breach, MSKCC will not be entitled to receive any success payments or any change of control payment.

As of September 30, 2021, the estimated fair value of the total success payments obligation to MSKCC was $6.2 million, which was included in long-term liabilities in our condensed consolidated balance sheets. For the three and nine months ended September 30, 2021, we recognized $2.4 million and $3.6 million, respectively, of change in fair value of the MSKCC success payments liability, which were recorded in other income (expense) in our condensed consolidated statements of operations and comprehensive loss.

Intellia Therapeutics, Inc.

On July 16, 2014, we entered into a License Agreement, as amended (the "Intellia License Agreement") and a Services Agreement with Intellia, LLC, to which Intellia Therapeutics, Inc. ("Intellia") is a successor in interest. Under the Intellia License Agreement, we granted Intellia an exclusive worldwide license, with the right to sublicense, to certain CRISPR-Cas9 technology for a defined field of human therapeutics, including a license to certain of our future CRISPR-Cas9 intellectual property until our direct or indirect percentage of Intellia's common stock dropped below 10% (the "IP Cut-off Date"). Intellia granted us an exclusive worldwide license, with the right to sublicense, to certain of its CRISPR-Cas9 technology for all fields outside of the defined field of human therapeutics, including a license to certain of Intellia's future CRISPR-Cas9 intellectual property until the IP Cut-off Date. Each party had the right to opt-in to any licenses in its field of use entered into by the other party prior to the IP Cut-off Date, subject to the terms and conditions of such license. The IP Cut-off Date occurred on January 30, 2018. Under the Intellia License Agreement, each party is responsible for 30% of the other party's expenses for prosecution and maintenance of the licensed intellectual property. For each of the three and nine months ended September 30, 2021 and 2020, we reimbursed Intellia less than $0.1 million, which was recorded as general and administrative expenses in our condensed consolidated statements of operations and comprehensive loss. During each of the three months ended September 30, 2021 and 2020, Intellia reimbursed us $0.4 million (including reimbursement for a portion of the patent prosecution and maintenance costs of the CVC IP paid to UC), which was recorded as reductions of general and administrative expenses in our condensed consolidated statements of operations and comprehensive loss. During the nine months ended September 30, 2021 and 2020, Intellia reimbursed us $1.7 million and $1.1 million, respectively (including reimbursement for a portion of patent prosecution and maintenance costs of the CVC IP paid to UC), which were recorded as reductions of general and administrative expenses in our condensed consolidated statements of operations and comprehensive loss. The term of the Intellia License Agreement continues for the life of the licensed patents and patent applications; provided, however, either party may terminate upon the occurrence of certain events.

On June 16, 2021, we and Intellia entered into a leaseback agreement (the "Leaseback Agreement"), which resolved the arbitration dispute between the parties (Note 9). Pursuant to the Leaseback Agreement, in exchange for Intellia's grant to us of an exclusive license to certain intellectual property relating to CRISPR-Cas9, including Cas9 chRDNAs, for use solely in the manufacture of our CB-010 product candidate, we agreed to make certain payments to Intellia, including $1.0 million paid to Intellia in July 2021. We are also obligated to pay up to $23.0 million in potential future regulatory and sales milestones for our CB-010 product candidate if and when such milestones are achieved. We will also pay Intellia low- to mid-single-digit percent royalties on net sales of our CB-010 product candidate sold by us, our affiliates, and sublicensees until the expiration, abandonment, or invalidation of the last patent within the intellectual property relating to certain CRISPR-Cas9, including those relating to Cas9 chRDNAs.

Pioneer Hi-Bred International, Inc. (now Corteva Agriscience)

On July 13, 2015, we and Pioneer Hi-Bred International, Inc. ("Pioneer") (now Corteva Agriscience), then a DuPont company ("DuPont"), entered into an Amended and Restated Collaboration and License Agreement, as amended (the "Pioneer Agreement"). Under the terms of the Pioneer Agreement, we and Pioneer cross-licensed CRISPR intellectual property portfolios. Pioneer granted us an exclusive worldwide license, with the right to sublicense, to its CRISPR intellectual property in the field of research tools, as well as a non-exclusive worldwide license to such intellectual property in human and animal therapeutics, industrial biotechnology, certain agriculture segments, and other fields; and we granted Pioneer an exclusive worldwide license, with the right to sublicense, to our CRISPR intellectual property, including the CVC IP, in a defined field of agriculture relating to specified row crops, as well as a non-exclusive worldwide license to such intellectual property in other agricultural applications, industrial biotechnology, nutrition and health, and other fields. The Pioneer Agreement continues until the expiration, abandonment, or invalidation of the last patent or patent application within the licensed intellectual property; provided, however, that the parties may terminate the Pioneer Agreement by mutual consent or either party may unilaterally terminate the Pioneer Agreement in the event of an uncured breach of a payment obligation, bankruptcy, or failure to maintain or own licensed intellectual property by the other party in the event the

non-breaching party is materially adversely affected by such failure. We are obligated to pay low-single-digit percent royalties to Pioneer for the sales of our products in the research tools field as well as certain sublicensing revenues in that field. We are eligible to receive milestone payments from Pioneer in the event certain regulatory and commercial milestones are met related to specified row crops, for a total of up to $22.4 million, as well as to receive low-single-digit percent royalties for sales of defined agricultural products and certain sublicensing revenues in that field. In March 2021, we received a milestone payment of $0.3 million from Pioneer. Under the Pioneer Agreement, we and Pioneer also entered into a three-year collaboration, funded by Pioneer, which ended in 2016. Initially, Pioneer owned the patents and patent applications developed under the collaboration, including the chRDNA patent family, and granted us an exclusive license to these patents and patent applications in the fields of research tools and therapeutics.

In December 2020, we and Pioneer entered into an amendment to the Pioneer Agreement under which Pioneer assigned to us the chRDNA patent family developed under the research collaboration, and we paid Pioneer an upfront payment of $0.5 million. We considered the payment to Pioneer in accordance with revenue recognition guidance and accounted for it as a reduction of the licensing and collaboration revenue in our condensed consolidated statements of operations and comprehensive loss. In addition to the upfront payment, we are now obligated to pay all patent prosecution and maintenance costs for the chRDNA patent family; up to $2.8 million in regulatory milestone payments for therapeutic products developed by us, our affiliates, or licensees that are covered by the chRDNA patent family; up to $20.0 million in sales milestones over a total of four therapeutics products sold by us, our affiliates, or licensees that are covered by the chRDNA patent family; and a low-single-digit percentage of licensing revenues received by us for licensing the chRDNA patent family after December 2020.

During the nine months ended September 30, 2021, we incurred $0.8 million for payments we owe to Pioneer related to licensing revenues, which were recorded as a research and development expense in our condensed consolidated statements of operations and comprehensive loss. No licensing fees payments were incurred to Pioneer during the three months ended September 30, 2021 nor during the three and nine months ended September 30, 2020.

Genus plc

On May 12, 2016, we entered into a Research Collaboration and License Agreement, as amended (the “Genus Agreement”) with Genus plc (“Genus”) under which we granted Genus an exclusive worldwide license to certain CRISPR-Cas9 technology for the introduction of genetic traits into cattle and pigs raised to produce protein primarily for human consumption; provided, however, that at the end of the four-year research collaboration, Genus was required to select a specified number of licensed products and our license to Genus is now limited to those particular products. The Genus Agreement continues until the expiration, abandonment, or invalidation of the last patent or patent application within the licensed patent rights; provided, however, that each party may terminate the Genus Agreement upon the occurrence of certain events, and Genus may terminate the Genus Agreement at its sole discretion upon written notice to us. In addition to an upfront payment we received, we are eligible to receive milestone payments from Genus in the event certain regulatory and commercial milestones are met, for the selected licensed products, up to a total of $10.0 million. We will also be eligible to receive either low- to mid-single-digit percent royalties or low-single to low-double-digit percent royalties on net sales of the licensed products.

Under the Genus Agreement, we and Genus entered into a four-year research collaboration, which was funded by Genus. The collaboration ended in May 2020. We did not recognize any revenue in connection with the Genus Agreement for the three and nine months ended September 30, 2021. During the three months ended September 30, 2020, we did not recognize any revenue related to the Genus Agreement. During the nine months ended September 30, 2020, we recognized revenue of $0.8 million related to the Genus Agreement.

Related Party Private Company

On May 15, 2020, we entered into an Exclusive License Agreement, as amended, with a related party private company (the “Private Company License Agreement”), under which we granted the private company an exclusive worldwide license to certain CRISPR intellectual property rights and know-how in a defined field.

We are eligible to receive milestone payments for licensed products following the first commercial sale of each licensed product in each of the United States and the first European country in which each licensed product is sold by the private company. The private company may select one of several milestone payment amounts for each licensed product, which selection then dictates the applicable royalty rate for net sales of licensed products. We are also eligible to receive a percentage of sublicensing revenues in the event the private company sublicenses the CRISPR intellectual property that we licensed to the private company.

The Private Company License Agreement will continue in force and effect until the expiration, abandonment, or invalidation of the last patent or patent application within the licensed patent rights. The Private Company License Agreement may be terminated during the term by either party for an uncured material breach or bankruptcy. Additionally, the private company may terminate the Private Company License Agreement upon 90 days' written notice to us.

As consideration for the exclusive license, the private company issued to us 7,500,000 shares of convertible preferred stock with an estimated fair value of $7.5 million, which was the price paid for similar shares by another investor, and which was an arm's length transaction. We accounted for the grant of the license as a contract with a customer under Accounting Standards Codification ("ASC") 606 and recognized $7.5 million as license and collaboration revenue in our condensed consolidated statements of operations and comprehensive loss for the nine months ended September 30, 2020. We did not recognize any revenue in connection with the Private Company License Agreement for the three and nine months ended September 30, 2021 nor for the three months ended September 30, 2020.

On May 15, 2020, we entered into a separate option agreement under which we granted the same private company a three-year option to negotiate an exclusive, royalty-bearing, worldwide license in a defined field to the CVC IP and certain other CRISPR-Cas9 patent rights controlled by us. Through September 2021, we received a total of $100,000 in upfront option payments and may receive an additional annual option fee and an option exercise fee. We recorded the upfront payments received in long-term deferred revenue in our condensed consolidated balance sheets as of September 30, 2021 and December 31, 2020.

AbbVie Manufacturing Management Unlimited Company

On February 9, 2021, we entered into a Collaboration and License Agreement (the "AbbVie Agreement") with AbbVie Manufacturing Management Unlimited Company ("AbbVie"). Pursuant to the AbbVie Agreement, AbbVie selects one target or, for a dual CAR-T product, two targets (each selection, a "Program Slot") to develop collaboration CAR-T products (and corresponding licensed products). For each of AbbVie's two Program Slots (or up to four Program Slots, if AbbVie elects to expand the number as set forth below), we will collaborate to develop one or more collaboration allogeneic CAR-T products directed toward the single cancer target or target combination chosen by AbbVie as described in an applicable research plan, utilizing our Cas12a chRDNA genome-editing and cell therapy technologies. We granted AbbVie an exclusive (even as to us), royalty-bearing, worldwide license, with the right to grant sublicenses, under our Cas12a chRDNA and cell therapy intellectual property, as well as certain genome-editing technology that we may gain rights to in the future and intellectual property that may be developed under the collaboration, solely for AbbVie to develop, commercialize, manufacture, and otherwise exploit the collaboration CAR-T products in the field of human diagnostics, prophylactics, and therapeutics. Under the terms of the AbbVie Agreement, we will conduct certain preclinical research, development, and manufacturing activities under the collaboration, including certain activities for the manufacture and supply of licensed product for AbbVie's phase 1 clinical studies. AbbVie will reimburse us for all such activities, including reimbursement for time spent by employees at a designated FTE rate. The duration of the collaboration is not fixed. Under the terms of the AbbVie Agreement, AbbVie has selected its initial Program Slot and has reserved six additional targets, which AbbVie may choose to be used or substituted into the two Program Slots or used for the third or fourth Program Slots if AbbVie expands the number of Program Slots during the collaboration.

During the collaboration, AbbVie may expand from two Program Slots to a total of four Program Slots by paying us an additional $15.0 million for each Program Slot, provided that AbbVie must make such payment within the earlier of (a) 60 calendar days following completion of the phase 1 clinical studies for the initial collaboration CAR-T and (b) December 31, 2025. Under the terms of the AbbVie Agreement, we are eligible to receive up to $150.0 million in future developmental and regulatory milestone payments for each Program Slot and up to $200.0 million in sales-based milestones for each Program Slot. We are also eligible to receive global royalties on net sales of licensed products sold by AbbVie, its affiliates, and sublicensees in the high-single-digit to low-teens percent range, subject, in certain instances, to various reductions.

The term of the AbbVie Agreement will continue in force and effect until the date of expiration of the last royalty term of the last country in which a licensed product is exploited. On a licensed product-by-licensed product and country-by-country basis, the royalty term is the period of time beginning on the first commercial sale of a licensed product in a country and ending on the latest of the following three dates: (a) the expiration, invalidation, revocation, cancellation, or abandonment date of the last patent that includes a valid claim to either (i) the collaboration CAR-T product in the licensed product or (ii) the method of making the collaboration CAR-T product in the licensed product in such country (in the case of (ii), only for so long as no biosimilar product is commercially available in such country); (b) 10 years from the date of the first commercial sale of such licensed product in such country; and (c) the expiration date of regulatory exclusivity for such licensed product in such country. The AbbVie Agreement may be terminated during the term by either party for an uncured material breach or bankruptcy by the other party. Additionally, AbbVie may terminate the AbbVie Agreement, in its entirety or on a licensed product-by-licensed product basis, effective immediately upon written notice to us,

if AbbVie in good faith believes that it is not advisable for AbbVie to continue to exploit the collaboration CAR-T products or licensed products as a result of a perceived serious safety issue. AbbVie may also terminate the AbbVie Agreement in its entirety at its sole discretion upon 90 days' prior written notice to us.

The transaction price we received under the AbbVie Agreement associated with the first two Program Slots consisted of the $30.0 million upfront cash payment and the estimated variable consideration related to our performance of preclinical, development, and manufacturing activities under the collaboration and the developmental and regulatory milestone payments. We constrain the estimated variable consideration if we assess that it is probable that a significant reversal in the amount of cumulative revenue recognized may occur in future periods. We constrained all developmental and regulatory milestone payments as of September 30, 2021. The transaction price will be reevaluated in each reporting period and as changes in circumstances occur. We determined that the licenses we granted to AbbVie and our participation in the joint governance committee are not capable of being distinct from the preclinical research, development, and manufacturing activities and therefore are combined into one performance obligation. We recognize revenue based on the measure of progress using an estimated cost-based input method each reporting period.

We received an upfront cash payment of $30.0 million from AbbVie on March 11, 2021. We recognized short-term deferred revenue in the amount of $8.3 million and long-term deferred revenue in the amount of $20.1 million related to this upfront cash payment in our condensed consolidated balance sheets as of September 30, 2021. We recognized $2.3 million and $2.8 million in revenue for the three and nine months ended September 30, 2021, respectively, in relation to the AbbVie Agreement.

5. Revenue

Disaggregation of Revenue

We disaggregate revenue by geographical market based on the location of research and development activities of our licensees and collaborators. The following is a summary of revenue by geographic location for the three and nine months ended September 30, 2021 and 2020 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
United States	$ 3,507	$ 953	$ 6,483	$ 10,946
Rest of world	470	245	556	431
Total	$ 3,977	$ 1,198	$ 7,039	$ 11,377

During the three months ended September 30, 2021, we recognized $1.7 million of revenue related to performance obligations satisfied at a point in time, and we recognized $2.3 million of revenue related to performance obligations satisfied over time.

During the three months ended September 30, 2020, we recognized $1.2 million of revenue related to performance obligations satisfied at a point in time, and we did not recognize any revenue related to performance obligations satisfied over time.

During the nine months ended September 30, 2021, we recognized $4.2 million of revenue related to performance obligations satisfied at a point in time, and we recognized $2.8 million of revenue related to performance obligations satisfied over time.

During the nine months ended September 30, 2020, we recognized $10.5 million of revenue related to performance obligations satisfied at a point in time, and we recognized $0.9 million of revenue related to performance obligations satisfied over time.

Contract Balances

Accounts receivable relate to our right to consideration for performance obligations completed (or partially completed) for which we have an unconditional right to consideration. Our accounts receivable balances represent amounts that we billed to licensees with invoices outstanding as of the period end.

Contract assets are rights to consideration in exchange for a license that we have granted to a licensee when such right is conditional on something other than the passage of time. Our contract asset balances represent royalties, milestone payments, and research costs related to the AbbVie Agreement that are unbilled as of the period end.

Contract liabilities consist of deferred revenue and relate to amounts invoiced to, or advance consideration received from, licensees, which precede our satisfaction of the associated performance obligations. Our deferred revenue primarily results from upfront payments received relating to performance obligations that are satisfied over time under the AbbVie Agreement. The remaining deferred revenue relates to upfront payments received under license agreements that also include non-refundable annual license fees, which are accounted for as material rights for license renewals and are recognized at the point in time the annual license fee is paid by the licensee and the renewal period begins.

The following table presents changes in our contract assets and liabilities during the nine months ended September 30, 2021 (in thousands):

	Balance as of December 31, 2020	Additions	Deductions	Balance as of September 30, 2021
Accounts receivable	$ 150	$ 7,220	$ (6,792)	$ 578
Contract assets:				
Unbilled accounts receivable	$ 1,328	$ 3,656	$ (3,131)	$ 1,853
Contract liabilities:				
Deferred revenue, current and long-term	$ 1,098	$ 34,826	$ (4,156)	$ 31,768

Unbilled accounts receivable increased during the nine months ended September 30, 2021, primarily due to unbilled research costs under the AbbVie Agreement in the amount of $1.0 million.

Deferred revenue increased during the nine months ended September 30, 2021, primarily due to recognition of $30.0 million in deferred revenue related to the AbbVie Agreement (Note 4).

During the nine months ended September 30, 2021 and 2020, we recognized $0.1 million and $1.0 million of revenue, respectively, which were included in the opening contract liabilities balances as of December 31, 2020 and 2019, respectively.

Transaction Prices Allocated to the Remaining Performance Obligations

Remaining unsatisfied performance obligations represent in aggregate the amount of a transaction price that has been allocated to performance obligations not delivered, or only partially delivered, as of the end of a reporting period. The value of transaction prices allocated to remaining unsatisfied performance obligations as of September 30, 2021 was approximately $54.0 million. We expect to recognize approximately $8.7 million of remaining performance obligations as revenue in the next 12 months, and the remainder thereafter.

Capitalized Contract Acquisition Costs and Fulfillment Costs

We did not incur any expenses to obtain license and collaboration agreements, and costs to fulfill those contracts do not generate or enhance our resources. As such, no costs to obtain or fulfill a contract have been capitalized in any period.

6. Balance Sheet Items

Other receivables consisted of the following as of September 30, 2021 and December 31, 2020, respectively (in thousands):

	September 30, 2021	December 31, 2020
Patent cost reimbursements	$ 4,890	$ 3,672
Other	464	10
Total	$ 5,354	$ 3,682

Prepaid expenses and other current assets consisted of the following as of September 30, 2021 and December 31, 2020, respectively (in thousands):

	September 30, 2021	December 31, 2020
Prepaid income taxes	$ 1,490	$ 1,479
Prepaid insurance	2,646	-
Prepaid contract manufacturing and clinical costs	609	954
Prepaid rent	444	337
Other	763	423
Total	$ 5,952	$ 3,193

Property and equipment, net, consisted of the following as of September 30, 2021 and December 31, 2020, respectively (in thousands):

	September 30, 2021	December 31, 2020
Furniture and equipment	$ 128	$ 117
Computer equipment	273	263
Lab equipment	6,245	5,038
Leasehold improvements	1,636	1,180
Total property and equipment, gross	8,282	6,598
Less: accumulated depreciation and amortization	(3,805)	(3,096)
Property and equipment, net	$ 4,477	$ 3,502

Depreciation and amortization expenses related to property and equipment were $0.3 million for each of the three months ended September 30, 2021 and 2020. Depreciation and amortization expenses related to property and equipment were $0.7 million for each of the nine months ended September 30, 2021 and 2020.

Accrued expenses and other current liabilities consisted of the following as of September 30, 2021 and December 31, 2020, respectively (in thousands):

	September 30, 2021	December 31, 2020
Accrued patent expenses	$ 5,633	$ 5,087
Accrued employee compensation and related expenses	2,948	2,081
Accrued research and development expenses	2,822	581
Credit card liability	871	193
Accrued sublicensing fees	478	402
Accrued legal expenses	407	-
Other	771	629
Total	$ 13,930	$ 8,973

7. Related Party Transactions

Related Party Private Company

On May 15, 2020, we received 7,500,000 shares of convertible preferred stock with an estimated fair value of $7.5 million as consideration for the Private Company License Agreement (Note 4). This represents a material voting interest in the private company and entitles us to hold one of the four private company's board of director seats and to jointly vote with another stockholder on a second board of director's seat. To date, we have appointed one of the three directors on the private company board of directors. We concluded that the private company is a variable interest entity and that we are not its primary beneficiary based on our representation on its board of directors. As the private company's convertible preferred stock is not in substance common stock, we record this investment using the measurement alternative in accordance with ASC 321. Under the measurement alternative, our investment in the private company's convertible preferred stock was initially recorded at its estimated fair value, but the carrying value may be adjusted through earnings upon an impairment or when there is an observable price change involving the same or a similar investment with the private company. As of each of September 30, 2021 and December 31, 2020, the carrying value of investment was $7.5 million. There have been no changes to the carrying value of the investment during the nine months ended September 30, 2021.

Amended and Restated Collaboration and License Agreement with Pioneer

As of September 30, 2020, DuPont held a greater than 10% voting interest in the Company and Pioneer, then a DuPont company, was considered a related party (Note 4).

Scientific Advisory Board Payments

Dr. Jennifer A. Doudna, a co-founder and significant stockholder of the Company, receives compensation for participating on our scientific advisory board (the "SAB"). During each of the three and nine months ended September 30, 2021 and 2020, we paid Dr. Doudna less than $0.1 million for her participation on our SAB.

Officer Promissory Note

In November 2018, our president and chief executive officer entered into a promissory note with us for $1.1 million, as a means to provide liquidity without triggering a taxable event. The note bore interest at a rate of 3.04%, compounded annually, and was payable in five years, together with principal and accrued interest. The promissory note was secured by 409,795 shares of our common stock owned by our president and chief executive officer and was determined to be non-recourse for accounting purposes. As such, the issuance of the promissory note was effectively the grant of a new share option. A one-time stock compensation charge of $0.7 million was recorded as a general and administrative expenses during the year ended December 31, 2018. The promissory note was repaid in full amount in June 2021 by our president and chief executive officer, and recognized as an increase in additional paid in capital of $1.2 million.

8. Paycheck Protection Program Loan

On May 6, 2020, we entered into a promissory note with WebBank (the "Lender") pursuant to the Paycheck Protection Program for a total amount of $1.6 million (the "PPP Loan").

Our PPP Loan had a two-year term and bore interest at a stated rate of 1.0% per annum, accrued monthly, beginning on the date our PPP Loan was issued by the Lender. No monthly principal and interest payments were required under our PPP Loan.

We did not provide any collateral or guarantees for our PPP Loan, nor did we pay any facility charge to obtain our PPP Loan. Our PPP Loan provided for customary events of default, including those relating to failure to make payment, bankruptcy, breaches of representations, and material adverse effects. We could have prepaid the principal of our PPP Loan at any time without incurring any prepayment charges.

A PPP loan can be partially or fully forgiven if a borrower complies with the provisions of the CARES Act, including the use of PPP loan proceeds for payroll costs, rent, utilities, and certain other expenses, and at least 60% of the PPP loan proceeds must be used for payroll costs as defined by the CARES Act. Any forgiveness of a PPP loan is subject to approval by the SBA.

On May 22, 2021, our PPP Loan was forgiven in full by the SBA and, at that time, we recognized a PPP Loan extinguishment gain of $1.6 million in our condensed consolidated statements of operations and comprehensive loss.

9. Commitments and Contingencies

Facility Lease Agreements

We lease laboratory and office space under non-cancellable operating agreements. On March 31, 2021, we entered into a ten-year lease agreement, which superseded and replaced our prior lease, as amended, and the lease included additional office and laboratory space located within the same building in Berkeley, California. Our lease agreement contains a renewal option for an additional term of five years. Monthly base rent under our lease agreement amounts to $0.3 million, subject to annual escalation from 3.1% to 3.5%.

We record rent expense on a straight-line basis over the term of our leases. For tenant improvement allowances funded by landlord incentives, we record a deferred lease incentive liability in accrued expenses and other liabilities and amortize the deferred lease incentive liability as a reduction to rent expense on our condensed consolidated statements of operations and comprehensive loss over the term of the applicable lease. As of September 30, 2021 and December 31, 2020, we recorded $0.8 million and $0.6 million, respectively, related to the required security deposits in other assets, long-term, in our condensed consolidated balance sheets.

As of September 30, 2021, future minimum lease payments under the leases were as follows (in thousands):

Remainder of 2021	$ 845
2022	3,485
2023	3,596
2024	3,708
2025	3,627
Thereafter	27,379
Total	$ 42,640

Rent expense was $2.9 million and $2.2 million for the nine months ended September 30, 2021 and 2020, respectively.

Capital Lease

We accounted for certain leased equipment as a capital lease due to the ownership of such equipment transferring to us at the end of the lease term. As of September 30, 2021, the capital lease obligation was repaid in full and we do not have any remaining future minimum lease payments related to this capital lease. As of December 31, 2020, the total capital lease obligation amounted to $0.1 million, which was included in the current portion of the capital lease obligation in the accrued expenses and other current liabilities and the non-current portion of the capital lease in other liabilities in our condensed consolidated balance sheets.

Research and Development Agreements

We enter into various agreements in the ordinary course of business, such as those with suppliers, contract research organizations, contract manufacturing organizations, clinical trial sites, and the like. These agreements provide for termination at the request of either party, generally with less than one-year notice and are, therefore, cancellable contracts and, if cancelled, are not anticipated to have a material effect on our condensed consolidated financial condition, results of operations, or cash flows.

Guarantees and Indemnifications

In the normal course of business, we enter into agreements that contain a variety of representations and warranties and provide for certain indemnifications by us. Our exposure under these agreements is unknown because claims may be made against us in the future. To date, we have not paid any claims or been required to defend any action related to our indemnification obligations. As of each of September 30, 2021 and December 31, 2020, we did not have any material indemnification claims that were probable or reasonably possible, and consequently, we have not recorded related liabilities.

Intellia Arbitration

On October 16, 2018, Intellia initiated an arbitration proceeding with JAMS, asserting that we had violated the terms and conditions of the Intellia License Agreement (the “Intellia Arbitration”). The Intellia Arbitration involved whether two patent families controlled by us and respectively, to CRISPR-Cas9 chRDNAs and Cas9 scaffolds are included in the Intellia License Agreement. On September 19, 2019, the parties received an interim award from the arbitration panel ruling that the two patent families are included in the Intellia License Agreement, but the arbitration panel granted us an exclusive leaseback to Cas9 chRDNAs under economic terms to be negotiated by the parties. On February 6, 2020, the arbitration panel clarified that the leaseback relates solely to our CB-010 program and instructed the parties to negotiate economic terms based on a leaseback of that scope (Note 4). On June 16, 2021, the parties entered into the Leaseback Agreement, which resolved the dispute and, on July 21, 2021, the arbitration panel dismissed the Intellia Arbitration with prejudice.

10. Convertible Preferred Stock

The authorized, issued, and outstanding shares of our convertible preferred stock and liquidation preferences as of December 31, 2020 were as follows (in thousands, except for share amounts):

Series	Authorized Shares	Outstanding Shares	Liquidation Preference	Carrying Value
Series A	1,576,342	1,576,342	$ 3,550	$ 3,452
Series A-1	3,004,124	3,004,124	8,000	7,901
Series B	3,186,116	3,186,116	30,070	29,970
	7,766,582	7,766,582	$ 41,620	$ 41,323

Upon the closing of our IPO on July 27, 2021, all outstanding shares of convertible preferred stock, including the Series C preferred stock issued in March 2021, were converted into shares of common stock. Our Amended and Restated Certificate of Incorporation, which was approved by our Board and stockholders in connection with the IPO, authorizes the issuance of 10,000,000 shares of preferred stock upon the closing of the IPO, none of which was issued and outstanding as of September 30, 2021.

11. Common Stock

Common stock reserved for future issuance, on an as converted basis, consists of the following:

	As of September 30, 2021	As of December 31, 2020
Preferred stock, issued and outstanding	-	14,119,631
Stock options, issued and outstanding	4,965,952	4,520,551
Stock options, authorized for future issuance	5,782,814	582,340
Stock available under the Employee Stock Purchase Plan	511,000	-
Restricted stock awards	-	5,999
	11,259,766	19,228,521

12. Stock Option Plans

In July 2021, our Board adopted and our stockholders approved the 2021 Equity Incentive Plan (the "2021 Plan") that became effective on July 22, 2021. We reserved 5,200,000 shares of common stock for issuance under the 2021 Plan. In addition, 934,562 shares available for issuance under the 2013 Equity Incentive Plan, adopted in 2013 and amended and restated in 2019, were transferred into the 2021 Plan. Furthermore, any shares subject to awards under the 2013 Plan that terminate, expire, or lapse for any reason without the delivery of shares, or are reacquired or withheld (or not issued) to satisfy a tax withholding obligation or the purchase or exercise price, are added to the 2021 Plan. The 2021 Plan also provides that the number of shares initially reserved and available for issuance will automatically increase each January 1, beginning on January 1, 2022 and ending in January 1, 2031, by 5% of the outstanding number of shares of our common stock as of the last day of the immediately preceding fiscal year, or such lesser number of shares as determined by our Board. No more than 56,000,000 shares of stock may be issued upon the exercise of incentive stock options under the 2021 Plan. Options under the 2021 Plan may be granted for periods of up to 10 years at exercise prices no less than the fair market value of our common stock on the date of grant; provided, however, that the exercise price of an incentive stock option granted to a 10% stockholder may not be less than 110% of the fair market value of the shares on the date of grant and such option may not be exercisable after the expiration of five years from the date of grant. The grant date fair market value of all awards made under our 2021 Plan and all cash compensation paid by us to any non-employee director for services as a director in any fiscal year may not exceed $750,000, increased to $1,000,000 in the fiscal year of their initial service as a non-employee director. As of September 30, 2021, we had 5,782,814 shares available for issuance under our 2021 Plan.

The following table summarizes stock option activity under our equity incentive plans during the nine months ended September 30, 2021:

	Shares Available to Grant	Stock Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (in thousands) (a)
Outstanding at December 31, 2020	582,340	4,520,551	$ 1.64	5.3	$ 6,929
Addition to option pool	7,871,714				
Options granted	(2,809,660)	2,809,660	$ 6.99	9.6	
Options exercised	-	(2,225,839)	$ 0.94	4.0	
Options cancelled or forfeited	138,420	(138,420)	$ 2.07	-	
Exercisable at September 30, 2021	5,782,814	4,965,952	$ 4.97	8.3	$ 94,075
Vested and expected to vest at September 30, 2021		4,965,952	$ 4.97	8.3	$ 94,075

(a) The aggregate intrinsic value is calculated as the difference between the stock option exercise price and the estimated fair value of the underlying common stock as of September 30, 2021.

Grant Date Fair Value

During the three months ended September 30, 2021, we granted 351,750 stock options to employees (no stock options were granted to non-employees) with a weighted average grant date fair value of $16.64. During the nine months ended September 30, 2021, we granted 2,809,660 stock options to employees and non-employees with a weighted average grant date fair value of $4.70.

During the three months ended September 30, 2020, no stock options were granted to employees or non-employees. During the nine months ended September 30, 2020, we granted 379,761 stock options to employees and non-employees with a weighted average grant date fair value of $1.82.

We estimated the fair value of each employee and non-employee stock option award on the grant date using the Black-Scholes option-pricing model based on the following assumptions for the three and nine months ended September 30, 2021 and 2020:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Volatility	74.8%	N/A	74.8% to 76.5%	74.9% to 77.4%
Expected term (in years)	7	N/A	5.5 to 7.0	5.5 to 6.0
Risk-free interest rate	1.1%	N/A	0.9% to 1.2%	0.4% to 0.7%
Expected dividend yield	0.0%	N/A	0.0%	0.0%

As of September 30, 2021, there was $7.7 million of unrecognized stock-based compensation expense related to employee and non-employee stock options that is expected to be recognized over a weighted-average period of 9.3 years.

Employee Stock Purchase Plan

In July 2021, our Board adopted and our stockholders approved the 2021 Employee Stock Purchase Plan (“2021 ESPP”), which became effective on July 22, 2021. The 2021 ESPP is intended to qualify as an employee stock purchase plan under Section 423 of the Internal Revenue Code of 1986, as amended (“Tax Code”). We reserved 511,000 shares of our common stock for employees’ purchases under the 2021 ESPP. The number of shares of common stock reserved for issuance under the 2021 ESPP will be automatically increased each year for ten calendar years beginning in 2022 by the number of shares equal to 1% of the total number of shares of common stock outstanding as of the last day of the immediately preceding fiscal year; provided that the maximum number of shares that may be issued under the ESPP is 10,000,000 shares. The 2021 ESPP allows an eligible employee to purchase shares of our common stock at a discount through payroll deductions of up to 15% of the employee’s eligible compensation. At the end of each offering period, employees are able to purchase shares at 85% of the lower of the fair market value of our common stock at the beginning of the offering period or at the end of each applicable offering period. The first offering period commenced on August 16, 2021 and will end on February 15, 2022. We recorded $0.1 million in accrued liabilities related to the amounts withheld as of September 30, 2021.

Stock-Based Compensation Expense

We recorded stock-based compensation expense related to employee and non-employee stock options grants in our condensed consolidated statements of operations and comprehensive loss for the three and nine months ended September 30, 2021 and 2020 as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Research and development	$ 484	$ 173	$ 970	$ 526
General and administrative	451	75	901	245
Total	$ 935	$ 248	$ 1,871	$ 771

The above stock-based compensation expense related to the following equity-based awards (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Stock options	$ 894	$ 248	$ 1,830	$ 771
ESPP	41	-	41	-
Total	$ 935	$ 248	$ 1,871	$ 771

Stock-based compensation expense related to employees was $0.9 million and $0.2 million for the three months ended September 30, 2021 and 2020, respectively. Stock-based compensation expense related to employees was $1.9 million and $0.8 million for the nine months ended September 30, 2021 and 2020, respectively. Stock-based compensation expense related to non-employees was less than $0.1 million for each of the three and nine months ended September 30, 2021 and 2020.

13. 401(k) Savings Plan

In 2017, we established a defined-contribution savings plan under Section 401(k) of the Tax Code. Our 401(k) plan is available to all employees and allows participants to defer a portion of their annual compensation on a pretax basis subject to applicable laws. We also provide a 4% match for employee contributions up to a certain limit. During the nine months ended September 30, 2021 and 2020, we contributed $0.3 million and $0.2 million, respectively, to our 401(k) plan.

14. Income Taxes

No income tax benefit was recorded during the three and nine months ended September 30, 2021 due to our operating losses. During the three and nine months ended September 30, 2020, we recorded income tax benefit of $0.2 million and $1.5 million, respectively. The income tax benefit was primarily related to the recognition of net operating loss carrybacks under the CARES Act, which generated a refund of taxes paid for the year ended December 31, 2018.

15. Net Loss Per Share

The following table sets forth the computation of the basic and diluted net loss per share (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	$ (20,974)	$ (7,933)	$ (48,444)	$ (19,605)
Denominator:				
Weighted-average common shares outstanding used to compute net loss per share, basic and diluted	45,889,646	8,537,965	22,052,944	8,470,019
Net loss per share, basic and diluted	$ (0.46)	$ (0.93)	$ (2.20)	$ (2.31)

Because we were in a net loss position for all periods presented, basic net loss per share is the same as diluted net loss per share for all periods, as the inclusion of all common stock equivalents outstanding would have been anti-dilutive. Potentially dilutive securities that were not included in the diluted per share calculations because they would be anti-dilutive were, as of September 30, 2021 and September 30, 2020, as follows:

	As of September 30, 2021	As of September 30, 2020
Convertible preferred stock	-	14,119,631
Stock options outstanding	4,965,952	4,759,953
Shares committed under ESPP	18,804	-
Common shares subject to nonrecourse notes	-	409,795
	4,984,756	19,289,379

16. Subsequent Events

The Company did not have any subsequent events as of the filing date of this Quarterly Report on Form 10-Q.

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

You should read the following discussion and analysis of our financial condition and results of operations together with our unaudited condensed consolidated financial statements and related notes included in Item 1 of Part I of this Quarterly Report on Form 10-Q (this "Quarterly Report") and with the audited consolidated financial statements and the related notes for the fiscal year ended December 31, 2020 included in our final prospectus (the "Final Prospectus") filed with the Securities and Exchange Commission (the "SEC") on July 22, 2021 pursuant to Rule 424(b)(4)of the Securities Act of 1933, as amended (the "Securities Act").

Special Note Regarding Forward-Looking Statements

This Quarterly Report contains forward-looking statements. All statements other than statements of historical facts contained in this Quarterly Report, including statements regarding our future results of operations and financial position, future revenue, business strategy, prospects, product candidates, planned and ongoing preclinical studies and clinical trials, results of preclinical studies and clinical trials, research and development costs, regulatory approvals, timing and likelihood of success, as well as plans and objectives of management for future operations, are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplate," "believe," "estimate," "predict," "potential," or "continue" or the negative of these terms or other similar expressions, although not all forward-looking statements contain these words.

As a result of many factors, including but not limited to risks related to our financial position and our ability to raise additional capital as needed to fund our operations and product candidate development; risks associated with the initiation, cost, timing, progress, and results of current and future research and development programs, preclinical studies, and clinical trials; risks related to our ability to obtain and maintain regulatory approval for our product candidates; risks that our product candidates, if approved, may not gain market acceptance due to negative public opinion and increased regulatory scrutiny of cell therapies involving genome editing; risks related to our ability to meet future regulatory standards with respect to our products; risks related to our ability to establish and/or maintain intellectual property rights covering our product candidates and genome-editing technology; risks of third parties asserting that our product candidates infringe their patents; risks related to developments of our competitors and our industry; risks related to our reliance on third parties to conduct our clinical trials and manufacture our product candidates; risks caused by the impact of COVID-19 on our business and operations; and other risks described in greater detail in the section of the Final Prospectus titled "Risk Factors," the events and circumstances reflected in our forward-looking statements may not be achieved or may not occur, and actual results could differ materially from those described in or implied by the forward-looking statements contained in the following discussion and analysis. As a result of these risks, you should not place undue reliance on these forward-looking statements. We assume no obligation to revise or update any forward-looking statements for any reason, except as required by law.

Overview

We are a clinical-stage biopharmaceutical company dedicated to transforming the lives of patients with devastating diseases by applying our novel CRISPR platform, **C**RISPR **h**ybrid **R**NA-**DNA** ("chRDNA," pronounced "chardonnay"), toward the development of next-generation, genome-edited cell therapies. Our renowned founders, including a Nobel laureate, are pioneers in CRISPR genome editing. Our chRDNA technology has demonstrated superior specificity and high efficiency in preclinical studies, which enables us to perform multiple, precise genome edits, while maintaining genomic integrity.

We believe that our technology has broad potential to generate gene and cell therapies in oncology and in therapeutic areas beyond oncology, including immune cell therapies, cell therapies derived from genome-edited induced pluripotent stem cells ("iPSCs"), and *in vivo* genome-editing therapies.

The genome-editing technologies currently used in the allogeneic cell therapy field generally have limited efficiency, specificity, and versatility for performing the multiple, precise genome edits necessary to address insufficient persistence. Our chRDNA technology is designed to address these genome-editing limitations and improve cell therapy activity. By applying this approach to allogeneic cell therapies, we believe we can unlock their full potential by improving upon their effectiveness and durability.

We are initially focused on advancing multiple proprietary allogeneic cell therapies for the treatment of both hematologic malignancies and solid tumors against cell surface targets for which autologous chimeric antigen receptor T cell ("CAR-T") therapeutics have previously demonstrated clinical proof of concept, including both CD19 and B cell maturation antigen ("BCMA"), as well as new emerging targets. We use our chRDNA technology to enhance, or armor, our cell therapies by creating additional genome edits to improve persistence of antitumor activity.

Our lead product candidate, CB-010, is, to our knowledge, the first clinical-stage allogeneic anti-CD19 CAR-T cell therapy with programmed cell death protein 1 ("PD-1") removed from the CAR-T cell surface by a genome-edited knockout of the *PDCD1* gene. We have demonstrated in preclinical models that the PD-1 knockout improves the persistence of antitumor activity by disrupting a pathway that leads to rapid T cell exhaustion. Our ANTLER phase 1 clinical trial for CB-010 is a study in patients with relapsed or refractory B cell non-Hodgkin lymphoma, with initial data expected to be disclosed in 2022. We announced in July 2021 that we had dosed the first patient in this clinical trial, and we continue to enroll patients in our ANTLER phase 1 clinical trial for CB-010.

Our CB-011 product candidate is an allogeneic CAR-T cell therapy that is, to our knowledge, the first anti-BCMA CAR-T cell therapy incorporating an immune cloaking approach that includes both the removal of the endogenous beta-2-microglobulin protein and insertion of a beta-2-microglobulin–human-leukocyte-antigen-E–peptide transgene. This strategy is designed to blunt CAR-T cell rejection by both patient T cells and natural killer ("NK") cells to enable more durable antitumor activity. CB-011 is in preclinical development for relapsed or refractory multiple myeloma with an investigational new drug ("IND") filing expected in 2022.

Our CB-012 program is an allogeneic armored CAR-T cell therapy targeting CD371, currently in preclinical development for the treatment of relapsed or refractory acute myeloid leukemia ("AML"), with an IND filing expected in 2023. CD371 is an attractive target for AML due to its expression on myeloid cancer cells, its enrichment on leukemic stem cells, and its absence on hematopoietic stem cells.

We are also developing allogeneic CAR-NK cell therapies derived from genome-edited iPSCs for the treatment of solid tumors. CB-020 is our first CAR-NK product candidate and it will contain genome edits designed to overcome the challenges of targeting solid tumors including trafficking, heterogeneity, and the immunosuppressive tumor microenvironment.

We control a robust patent portfolio protecting our chRDNA technology as well as certain of our allogeneic cell therapy binders.

In February 2021, we entered into a Collaboration and License Agreement (the "AbbVie Agreement") with AbbVie Manufacturing Management Unlimited Company ("AbbVie") to develop two new CAR-T cell therapies for AbbVie. We view this collaboration as an external recognition of the potential for our chRDNA genome-editing technology to significantly improve genome-editing specificity and efficiency.

On July 27, 2021, we successfully completed our initial public offering ("IPO") of common stock. On that date, we issued and sold an aggregate of 19,000,000 shares of our common stock at a price to the public of $16.00 per share for approximately $304.0 million in gross proceeds and approximately $282.7 million in net proceeds, after deducting underwriting discounts and commissions and offering expenses. On August 9, 2021, we issued and sold an additional 2,850,000 shares of our common stock pursuant to the IPO underwriters' full exercise of their over-allotment option to purchase additional shares at the public offering price of $16.00 per share. In total, we received an aggregate of approximately $349.6 million in gross proceeds from the IPO, including the exercise of the IPO underwriters' over-allotment option, and approximately $321.0 million in net proceeds, after deducting underwriting discounts and commissions and offering expenses. In addition, in connection with the closing of our IPO, all outstanding shares of our convertible preferred stock automatically converted into 26,234,654 shares of our common stock. Subsequent to the closing of our IPO, there are no shares of convertible preferred stock outstanding.

Since our founding in 2011, we have devoted substantially all of our resources to organizing and staffing, business planning, raising capital, developing our genome-editing platform technologies, developing our product candidates and building our pipeline, creating and maintaining our intellectual property portfolio, and establishing arrangements with third parties for the manufacture of our product candidates. We do not have any products approved for commercial sale and have not generated any revenue from product sales and have incurred net losses since commencement of our operations.

To date, we have primarily funded our operations through revenue from our license agreements, license and collaboration agreements, and a service agreement; the sale of shares of Intellia Therapeutics, Inc. ("Intellia") common stock that we received as consideration for the License Agreement, dated July 16, 2014, as amended, between us and Intellia, LLC (now Intellia Therapeutics, Inc.) (the "Intellia License Agreement"); the issuance and sale of our Series A, Series A-1, Series B, and Series C convertible preferred shares; and the issuance and sale of common stock related to our IPO. As of September 30, 2021, we had approximately $435.3 million in cash and cash equivalents. Based on our current operating plan, we expect that our existing cash and cash equivalents, including net cash proceeds from the IPO of approximately $321.0 million received in July and August of 2021, will enable us to fund our operating expenses and capital expenditure requirements for at least the next 12 months from the date of this Quarterly Report. See "Liquidity, Capital Resources, and Capital Requirements."

Our net losses for the three months ended September 30, 2021 and 2020 were $21.0 million and $7.9 million, respectively. Our net losses for the nine months ended September 30, 2021 and 2020 were $48.4 million and $19.6 million, respectively. We had accumulated deficits of $79.3 million and $30.9 million as of September 30, 2021 and December 31, 2020, respectively. Our net losses and operating losses may fluctuate from quarter to quarter and year to year depending primarily on the timing of our clinical trials and nonclinical studies and our other research and development expenses. In addition, we will incur increased costs associated with operating as a public company, including legal, audit, and accounting fees; regulatory costs related to maintaining compliance with the rules and regulations of the SEC and the Nasdaq Global Select Market; director and officer insurance premiums; costs for investor and public relations activities; and other accompanying compliance and governance costs. We anticipate that our expenses will increase substantially if and as we:

- progress our ANTLER phase 1 clinical trial and advance further clinical development of our CB-010 product candidate;
- continue our preclinical efforts and begin clinical development of our other product candidates, including CB-011, CB-012, and CB-020, and any other product candidates we identify and choose to develop;
- hire additional clinical, quality control, and scientific personnel;
- seek to identify additional research programs and additional product candidates;
- further develop our genome-editing technologies;
- acquire or in-license technologies;
- expand, maintain, enforce, and defend our intellectual property portfolio;
- seek regulatory and marketing approvals for our product candidates that successfully complete clinical trials, if any;
- establish and expand manufacturing capabilities and supply chain capacity for our product candidates;
- add operational, legal, financial, and management information systems and personnel;
- experience any delays, challenges, or other issues associated with any of the above, including the failure of clinical trials to meet endpoints, the generation of unanticipated preclinical study results or clinical trial data subject to differing interpretations, or the occurrence of potential safety issues or other development or regulatory challenges;
- make royalty, milestone, or other payments under current and any future in-license or assignment agreements;
- establish a sales, marketing, and distribution infrastructure to commercialize any product candidates for which we obtain marketing approval; and
- continue to operate as a public company.

We do not own or operate any manufacturing facilities and we outsource a substantial portion of our clinical trial studies to third parties. We use multiple contract manufacturing organizations (“CMOs”) to individually manufacture, under current good manufacturing processes (“cGMP”), the plasmids, chRDNA guides, Cas proteins, and AAV6 vectors used in the manufacture of our CAR-T cells as well as our CAR-T cell therapy product candidates. We expect to rely on our CMOs in the future for the manufacturing of our product candidates to expedite readiness for future clinical trials and most of these CMOs have demonstrated capability in preparation of materials for commercialization. Additionally, we may decide to build our own manufacturing facility in the future to provide us greater flexibility and control over our clinical or commercial manufacturing needs.

Because of the numerous risks and uncertainties associated with therapeutic product development, we may never achieve profitability and, unless and until we are able to develop and commercialize our product candidates, we will need to continue to raise additional capital. Until such time as we can generate significant revenue from product sales, if ever, we expect to finance our operations through public or private equity or debt financings, collaborations, strategic alliances, and licensing arrangements with third parties. There are no assurances that we will be successful in obtaining an adequate level of financing to support our business plans when needed on acceptable terms, or at all. If we raise additional funds through collaborations, strategic alliances, or licensing arrangements with third parties, we may have to relinquish valuable rights to our intellectual property, future revenue streams, research programs, or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise capital as

and when needed or on attractive terms, we may have to significantly delay, reduce, or discontinue the development and commercialization of our product candidates or scale back or terminate our pursuit of new in-licenses and acquisitions.

Impact of the COVID-19 Pandemic

The COVID-19 pandemic has caused governments worldwide to implement measures to slow the spread of the outbreak through travel restrictions, business shutdowns, and other measures. In response to the COVID-19 pandemic, starting on March 17, 2020, our entire workforce began working remotely pursuant to state, county, and city requirements. Since May 2020, we have gradually brought back on site all of our research employees whose work must be performed in the lab and most of our non-research employees are currently working partially remotely and partially on site. At this point in time, we do not know if or when we will bring our off-site functions back on site full-time. We have experienced no significant workforce reduction as a result of the COVID-19 pandemic.

The COVID-19 pandemic did have an impact on our supply chain in the early months of the pandemic. For example, we experienced delays in receiving healthy donor cells used in the manufacture of our CB-010 product candidate. These issues have been largely alleviated in recent months and we are currently receiving adequate supplies of donor cells, however we could face similar obstacles in the future. Although vaccines are now being distributed and administered across many parts of the world, new variants of the virus have emerged, and may continue to emerge, that are more contagious. As a result of future developments in the COVID-19 pandemic, we and our CMOs, contract research organizations ("CROs"), clinical trial sites, and other third-party vendors may face disruptions that could delay or otherwise affect our ability to initiate and complete preclinical studies or clinical trials.

Since the start of the COVID-19 pandemic, we have been and will continue to be focused on the safety of our employees. In response to the COVID-19 pandemic, we have instituted on-site protocols and procedures in accordance with guidance provided by the Centers for Disease Control and the State of California and regulations and guidelines promulgated by the County of Alameda and the City of Berkeley. As of January 1, 2022, all of our employees will be required to be fully vaccinated against COVID-19 as a condition of employment with us. Employees will be considered to be fully vaccinated two weeks after receiving both doses of a two-dose vaccine or one dose of a single-dose vaccine. Individuals who are unable to be vaccinated, due to a religious belief, a medical condition, or disability that prevents them from being vaccinated, can request a reasonable accommodation.

In May 2020, we received a Paycheck Protection Plan ("PPP") loan from the Small Business Administration (the "SBA") in the amount of $1.6 million (the "PPP Loan"), which we used exclusively to pay employees' salaries. In December 2020, we submitted an application to have our PPP Loan forgiven and, on May 22, 2021, our PPP Loan was forgiven in full by the SBA.

To the extent the COVID-19 pandemic adversely affects our business prospects, financial condition, and results of operation, it may also have the effect of exacerbating many of the other risks described or referenced in the section of the Final Prospectus titled "Risk Factors," such as those relating to the timing and results of our planned and future clinical trials and our financing needs. See the section of the Final Prospectus titled "Risk Factors" for more information regarding the potential adverse impact of the COVID-19 pandemic on our business, results of operations, and financial condition.

Components of Results of Operations

Licensing and Collaboration Revenue

We have not generated any revenue from product sales to date and do not expect to generate any revenue from the sale of products in the foreseeable future. If our development efforts for our product candidates are successful and result in regulatory approval and commercialization, we may generate revenue in the future from product sales. We cannot predict if, when, or to what extent we will generate revenue from the commercialization and sale of our product candidates if we succeed in obtaining regulatory approval for such product candidates.

To date, all of our revenue consists of licensing and collaboration revenue earned from collaboration and/or licensing agreements entered into with third parties, including related parties. Under these agreements, we license rights to certain intellectual property controlled by us. The terms of these arrangements typically include payments to us of one or more of the following: nonrefundable, upfront license fees or exclusivity fees; annual maintenance fees; regulatory and/or commercial milestone payments; research and development payments; and royalties on the net sales of products and/or services. Each of these payments results in licensing and collaboration revenue. Revenue under such licensing and collaboration agreements was $4.0 million and $1.2 million for the three months ended September 30, 2021 and 2020, respectively, and $7.0 million and $11.4 million for the nine months ended

September 30, 2021 and 2020, respectively. See Note 4 to our condensed consolidated financial statements included elsewhere in this Quarterly Report.

For additional information about our revenue recognition policy related to our licensing and collaboration agreements, see Note 2 to the annual consolidated financial statements for the years ended December 31, 2019 and 2020 included in our Final Prospectus.

For the foreseeable future we expect substantially all of our revenue will be generated from licensing and collaboration agreements.

Operating Expenses

Research and Development Expenses

Our research and development expenses consist of internal and external expenses incurred in connection with the development of our product candidates, development of our platform technologies, and our in-licensing and assignment agreements.

External costs include:

- costs associated with acquiring technology and intellectual property licenses that have no alternative future uses;
- costs incurred in connection with the preclinical and clinical development of our product candidates, including under agreements with CROs and other third parties that conduct clinical trials on our behalf;
- costs of supplying the components for, and the manufacturing of, our product candidates for use in our preclinical studies and clinical trials; and
- other research and development costs, including laboratory materials and supplies, and consulting services.

Internal costs include:

- employee-related costs, including salaries, benefits, and share-based compensation expense, for our research and development personnel; and
- allocated facilities and other overhead expenses, including expenses for rent and facilities maintenance and depreciation.

We expense research and development costs as incurred. Costs of certain activities are recognized based on an evaluation of the progress to completion of specific tasks. However, payments made prior to the receipt of goods or services that will be used or rendered for future research and development activities are deferred and capitalized as prepaid expenses and other current assets on our condensed consolidated balance sheets. The capitalized amounts are recognized as expense as the goods are delivered or as related services are performed. Historically, we have not tracked external costs by clinical program. We intend to separately track certain external costs for each clinical program. However, we do not currently track, and do not intend to track, costs that are deployed across multiple programs.

Research and development activities are central to our business model. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. We expect that our research and development expenses will increase substantially for the foreseeable future as we continue to implement our business strategy; advance our CB-010 product candidate through clinical trials and later stages of development; conduct preclinical studies and clinical trials for our other product candidates; seek regulatory approvals for any product candidates that successfully complete clinical trials; expand our research and development efforts and incur expenses associated with hiring additional personnel to support our research and development efforts; and seek to identify, in-license, acquire, and/or develop additional product candidates.

The successful development of our CB-010, CB-011, CB-012, and CB-020 product candidates, as well as other potential future product candidates, is highly uncertain. Accordingly, at this time, we cannot reasonably estimate or know the nature, timing, and costs of the efforts that will be necessary to complete the development of such product candidates. We are also unable to predict when, if ever, we will generate revenue and material net cash inflows from the commercialization and sale of any of our product candidates for which we may obtain marketing approval. We may never succeed in achieving regulatory approval for any of our

product candidates. The duration, costs, and timing of preclinical studies, clinical trials, and development of our product candidates will depend on a variety of factors, including:

- sufficiency of our financial and other resources;
- acceptance of our chRDNA genome-editing technology;
- ability to develop differentiating features so that our products have a competitive edge;
- completion of preclinical studies;
- establishment, maintenance, enforcement, and defense of our patents and other intellectual property rights;
- our ability to not infringe, misappropriate, or otherwise violate third-party intellectual property rights;
- clearance of INDs to initiate clinical trials on product candidates;
- successful enrollment in, and completion of, our clinical trials on our product candidates;
- data from our clinical trials that support an acceptable risk-benefit profile of our product candidates for the intended patient populations and that demonstrate safety and efficacy;
- entry into collaborations to further the development of our product candidates or for the development of new product candidates;
- successful development of our internal process development and transfer to larger-scale facilities;
- establishment of agreements with CMOs for clinical and commercial supplies and scaling up manufacturing processes and capabilities to support our clinical trials;
- receipt of marketing approvals from applicable regulatory authorities;
- grant of regulatory exclusivity for our product candidates;
- establishment of sales, marketing, and distribution capabilities and commercial launch of our product candidates if and when approved, whether by us or in collaboration with third parties;
- maintenance of a continued acceptable safety profile of our products post-approval;
- acceptance of our product candidates, if and when approved by the applicable regulatory authorities, by patients, the medical community, and third-party payors;
- ability of our products to compete with other therapies and treatment options;
- establishment and maintenance of healthcare coverage and adequate reimbursement; and
- expanded indications and patient populations for our products.

The following table summarizes our research and development expenses for the three and nine months ended September 30, 2021 and 2020:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
	(in thousands)		(in thousands)	
External costs:				
Acquisition of technology and intellectual property licenses	$ 359	$ 480	$ 3,644	$ 1,291
Services provided by third-party CROs, CMOs, and other third parties that conduct preclinical studies and clinical trials on our behalf	7,515	1,897	14,210	9,029
Other research and development expenses	2,322	862	5,981	2,869
Total external costs	10,196	3,239	23,835	13,189
Internal costs:				
Payroll-related expenses	4,176	1,915	9,380	6,056
Facilities and other allocated expenses	1,461	1,026	3,929	3,156
Total external costs	5,637	2,941	13,309	9,212
Total research and development expenses	$ 15,833	$ 6,180	$ 37,144	$ 22,401

General and Administrative Expenses

Our general and administrative expenses consist primarily of payroll-related costs, intellectual property costs, consulting costs, and allocated overhead, including rent, equipment depreciation, and utilities. Payroll-related costs consist of salaries, benefits, and stock-based compensation for our general and administrative personnel. Intellectual property costs include expenses for filing, prosecuting, and maintaining patents and patent applications, including certain patents and patent applications that we license from third parties. We are entitled to receive reimbursement from third parties of a portion of the costs for filing, prosecuting, and maintaining certain patents and patent applications. We accrue for these reimbursements as the respective expenses are incurred and classify such reimbursements as a reduction of general and administrative expenses. During the three months ended September 30, 2021 and 2020, we recorded $1.6 million and $1.5 million, respectively, of patent cost reimbursements as a reduction to general and administrative expense. During the nine months ended September 30, 2021 and 2020, we recorded $6.1 million and $3.7 million, respectively, of patent reimbursements as a reduction to general and administrative expense.

We expect that our general and administrative expenses will increase substantially in the future as a result of expanding our operations, including hiring personnel, preparing for potential commercialization of our product candidates, and additional facility occupancy costs, as well as increased costs associated with operating as a public company (including legal, audit, and accounting fees; regulatory costs related to maintaining compliance with the rules and regulations of the SEC and the Nasdaq Global Select Market; director and officer insurance premiums; costs for investor and public relations activities; and other accompanying compliance and governance costs). We also expect to increase the size of our administrative function to support the growth of our business.

Other Income (Expense)

Other income (expense) consists primarily of interest income earned on cash and money market funds, interest expense for our capital lease, and the promissory note related to our PPP Loan; change in the fair value of Intellia common stock in 2020; change in fair value of the MSKCC success payments liability under the Exclusive License Agreement (the “MSKCC Agreement”), dated November 13, 2020, by and between us and MSKCC; and other income from the sale of certain intellectual property rights. During the three and nine months ended September 30, 2021 and 2020, other income (expense) consisted primarily of interest income earned on cash and money market funds, interest expense on our capital lease, extinguishment of the promissory note related to our PPP Loan, and changes in the fair value of the MSKCC success payments liability.

Results of Operations

Comparison of the Three Months Ended September 30, 2021 and 2020

The following table summarizes our results of operations for the three months ended September 30, 2021 and 2020:

	Three Months Ended September 30,		Change	
	2021	2020	$	%
	(in thousands, except percentages)			
Licensing and collaboration revenue	$ 3,977	$ 1,198	$ 2,779	232%
Operating expenses				
Research and development	15,833	6,180	9,653	156%
General and administrative	6,760	3,247	3,513	108%
Total operating expenses	22,593	9,427	13,166	140%
Loss from operations	(18,616)	(8,229)	(10,387)	126%
Other income (expense)				
Interest income	22	4	18	450%
Interest expense	-	(6)	6	-100%
Change in fair value of the MSKCC success payments liability	(2,403)	-	(2,403)	100%
Other income	23	85	(62)	-73%
Total other income (expense)	(2,358)	83	(2,441)	-2941%
Net loss before provision for income taxes	(20,974)	(8,146)	(12,828)	157%
Benefit from income taxes	-	213	(213)	-100%
Net loss and comprehensive loss	$ (20,974)	$ (7,933)	$ (13,041)	164%

Licensing and Collaboration Revenue

Licensing and collaboration revenue increased $2.8 million, or 232%, to $4.0 million for the three months ended September 30, 2021 from $1.2 million for the three months ended September 30, 2020. This increase was primarily related to increases of $2.3 million related to recognition of revenue under the AbbVie Agreement and $0.5 million related to other license agreements with various licensees.

The following table summarizes our revenue by licensee for the three months ended September 30, 2021 and 2020:

	Three Months Ended September 30,	
	2021	2020
	(in thousands)	
AbbVie	$ 2,274	$ -
Other licensees	1,703	1,198
Total licensing revenue	$ 3,977	$ 1,198

Research and Development Expenses

Research and development expenses increased $9.7 million, or 156%, to $15.8 million for the three months ended September 30, 2021 from $6.2 million for the three months ended September 30, 2020. This increase was primarily related to increases of $5.6 million in external clinical trial-related activities and contract manufacturing activities for our product candidates, $2.3 million in payroll-related expenses, $1.5 million related to our preclinical programs, and $0.4 million in facilities and other allocated expenses, partially offset by a $0.1 million decrease in costs associated with our intellectual property license agreements.

General and Administrative Expenses

General and administrative expenses increased $3.5 million, or 108%, to $6.8 million for the three months ended September 30, 2021 from $3.2 million for the three months ended September 30, 2020. This increase was primarily related to increases of $2.1 million in payroll-related costs, $0.6 million in fees related to legal and accounting services, $0.5 million in insurance expenses, and

$0.4 million in facilities and maintenance expenses, partially offset by a $0.1 million decrease in costs of prosecuting and maintaining third-party patents.

Other Income (Expense)

We recognized expense related to the change in fair value of the MSKCC success payments liability in the amount of $2.4 million for the three months ended September 30, 2021. The increase in the liability was primarily related to the increase in our common stock fair value after our IPO in July 2021. The MSKCC Agreement was entered into on November 13, 2020, and no similar expense was recorded during the three months ended September 30, 2020.

Income Tax

No income tax benefit or expense was recognized for the three months ended September 30, 2021. An income tax benefit of $0.2 million was recognized for the three months ended September 30, 2020, which was due primarily to the recognition of net operating loss carrybacks under the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act"), which generated a refund of taxes paid for the year ended December 31, 2018.

Comparison of the Nine Months Ended September 30, 2021 and 2020

The following table summarizes our results of operations for the nine months ended September 30, 2021 and 2020:

	Nine Months Ended September 30,		Change	
	2021	2020	$	%
	(in thousands, except percentages)			
Licensing and collaboration revenue	$ 7,039	$ 11,377	$ (4,338)	-38%
Operating expenses				
Research and development	37,144	22,401	14,743	66%
General and administrative	16,469	9,887	6,582	67%
Total operating expenses	53,613	32,288	21,325	66%
Loss from operations	(46,574)	(20,911)	(25,663)	123%
Other income (expense)				
Interest income	72	157	(85)	-54%
Interest expense	(8)	(14)	6	-43%
Change in fair value of equity securities	-	(733)	733	-100%
Change in fair value of the MSKCC success payments liability	(3,584)	-	(3,584)	100%
Gain on extinguishment of PPP Loan	1,584	-	1,584	100%
Other income	66	431	(365)	-85%
Total other income (expense)	(1,870)	(159)	(1,711)	1076%
Net loss before provision for income taxes	(48,444)	(21,070)	(27,374)	130%
Benefit from income taxes	-	1,465	(1,465)	-100%
Net loss and comprehensive loss	$ (48,444)	$ (19,605)	$ (28,839)	147%

Licensing and Collaboration Revenue

Licensing and collaboration revenue decreased $4.3 million, or 38%, to $7.0 million for the nine months ended September 30, 2021 from $11.4 million for the nine months ended September 30, 2020. This decrease was primarily due to decreases of $7.5 million related to an Exclusive License Agreement, as amended, entered into with a related party private company on May 15, 2020 during the corresponding 2020 period, and $0.8 million related to completion of work under a Research Collaboration and License Agreement, as amended, with Genus plc on May 12, 2016, partially offset by increases of $2.8 million due to recognition of revenue under the AbbVie Agreement and $1.2 million related to other license agreements with various licensees.

The following table summarizes our revenue by licensee for the nine months ended September 30, 2021 and 2020:

	Nine Months Ended September 30,	
	2021	2020
	(in thousands)	
AbbVie	$ 2,781	$ -
Genus	-	844
Related party private company	-	7,500
Other licensees	4,258	3,033
Total licensing revenue	$ 7,039	$ 11,377

Research and Development Expenses

Research and development expenses increased $14.7 million, or 66%, to $37.1 million for the nine months ended September 30, 2021 from $22.4 million for the nine months ended September 30, 2020. This increase was primarily related to increases of $5.2 million in external clinical trial-related activities and contract manufacturing activities for our product candidates, $3.3 million in payroll-related expenses, $3.1 million in expenses for our preclinical programs, $2.4 million in costs associated with our intellectual property license and assignment agreements, and $0.8 million in facilities and other allocated expenses.

General and Administrative Expenses

General and administrative expenses increased $6.6 million, or 67%, to $16.5 million for the nine months ended September 30, 2021 from $9.9 million for the nine months ended September 30, 2020. This increase was primarily related to increases of $3.5 million in recruiting and payroll-related costs, $1.5 million in fees related to accounting, audit, and investor and public relations, $0.7 million in facilities and other allocated expenses, $0.6 million in insurance expenses, and $0.5 million in costs of prosecuting and maintaining third-party patents, partially offset by a decrease of $0.2 million in professional fees related to legal services.

Other Income (Expense)

We recognized a $0.7 million change in fair value of our equity investment in Intellia common stock during the nine months ended September 30, 2020. We sold Intellia common shares during the three months ended March 31, 2020, and there were no changes in fair value of other equity securities during the nine months ended September 30, 2021. We have not held any Intellia shares since March 31, 2020.

We recognized expense related to the change in the fair value of the success payments liability under the MSKCC Agreement in the amount of $3.6 million for the nine months ended September 30, 2021. The MSKCC Agreement was entered into on November 13, 2020 and no similar expense was recorded during the nine months ended September 30, 2020.

Other income of $0.4 million for the nine months ended September 30, 2020 was related to earned sale and assignment of patents and patent applications, which was not an ordinary business activity.

Our PPP Loan was forgiven in May 2021, and we recognized a gain on the loan extinguishment of $1.6 million for the nine months ended September 30, 2021. No such gain was recognized for the nine months ended September 30, 2020.

Income Taxes

No income tax benefit or expense was recognized for the nine months ended September 30, 2021. We recognized an income tax benefit of $1.5 million for the nine months ended September 30, 2020, which was due primarily to the recognition of net operating loss carrybacks under the CARES Act, which generated a tax refund of taxes paid for the year ended December 31, 2018.

Liquidity, Capital Resources, and Capital Requirements

Sources of Liquidity

Since our inception, we have not generated any revenue from product sales and have incurred significant operating losses and negative cash flows from our operations. We have funded our operations through sales of Series A, A-1, B, and C convertible preferred stock that generated approximately $150.1 million in aggregate net proceeds and from our IPO that generated approximately $321.0 million in net proceeds. We have also received approximately $88.4 million in net proceeds from the sale of Intellia common

stock received under the Intellia License Agreement. Additionally, through September 30, 2021, we received approximately $77.7 million from licensing agreements, licensing and collaboration agreements, a service agreement, patent assignments, and government grants, including $30.0 million that was received from AbbVie under the AbbVie Agreement.

As of September 30, 2021, we had cash and cash equivalents of $435.3 million. In March 2021, we received net proceeds of $108.8 million from our Series C convertible preferred stock financing and $30.0 million from AbbVie under the AbbVie Agreement. In July and August 2021, we received aggregate net proceeds of approximately $321.0 million from our IPO. We will continue to be dependent upon equity financing, debt financing, and/or other forms of capital raises at least until we are able to generate significant positive cash flows from our operations. We have no ongoing material financing commitments, such as lines of credit or guarantees, that are expected to affect our liquidity over the next five years, except for our lease commitments as described in Note 9 to our condensed consolidated financial statements included elsewhere in this Quarterly Report.

Based on our current operating plan, we expect that our existing cash and cash equivalents will enable us to fund our operating expenses and capital expenditure requirements for at least the next 12 months from the date of this Quarterly Report. We have based these estimates on our current assumptions, which may require future adjustments based on our ongoing business decisions.

Funding Requirements

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

Our future funding requirements will depend on many factors, including the following:

- the initiation, progress, timing, costs, and results of preclinical studies and clinical trials for our product candidates;
- the clinical development plans we establish for these product candidates;
- the number and characteristics of the product candidates that we develop;
- the increase in the number of our employees and expansion of our physical facilities to support growth initiatives;
- the outcome, timing, and cost of meeting regulatory requirements established by the U.S. Food and Drug Administration (“FDA”) and other comparable foreign regulatory authorities;
- whether we enter into any additional collaboration agreements and the terms of any such agreements;
- the cost of filing and prosecuting our patent applications, and maintaining and enforcing our patents and other intellectual property rights;
- the extent to which we acquire or in-license other product candidates and technologies;
- the cost of defending intellectual property disputes, including patent infringement actions brought by third parties against our products when we file for regulatory approval or thereafter;
- the effect of competing technological and market developments;
- the cost and timing of completion of commercial-scale outsourced manufacturing activities or the cost and timing of completion of clinical-scale and commercial-scale internal manufacturing activities;
- the cost of establishing sales, marketing, and distribution capabilities for any product candidates for which we may receive regulatory approval in regions where we choose to commercialize our products without a partner;
- the amount of revenue, if any, received from commercial sales of our product candidates, should any of our product candidates receive marketing approval;
- the achievement of milestones or occurrence of other developments that trigger payments by or to third parties under any collaboration or licensing agreements;

- our implementation of various computerized informational systems and efforts to enhance operational systems;
- the impact of the COVID-19 pandemic on our clinical development or operations; and
- the costs associated with being a public company.

Furthermore, our operating plans may change, and we may need additional funds to meet operational needs and capital requirements for clinical trials and other research and development expenditures.

If we need to raise additional capital to fund our operations, funding may not be available to us on acceptable terms, or at all. If we are unable to obtain adequate financing when needed, we may have to delay, reduce the scope of, or suspend one or more of our preclinical studies, clinical trials, research and development programs, and/or commercialization efforts. We may seek to raise any necessary additional capital through a combination of public or private equity offerings, debt financings, collaborations, and licensing arrangements. If we raise additional capital through debt financing, we may be subject to covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures, or declaring dividends. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in dilution to our stockholders. If we raise additional capital through marketing and distribution arrangements or other collaborations, strategic alliances, or licensing arrangements with third parties, we may have to relinquish certain valuable rights to our product candidates, technologies, future revenue streams, or research programs or grant licenses on terms that may not be favorable to us.

Cash Flows

Comparison of the Nine Months Ended September 30, 2021 and 2020

The following summarizes our cash flows for the periods indicated:

	Nine Months Ended September 30,	
	2021	2020
	(in thousands)	
Cash used in operating activities	$ (11,130)	$ (25,139)
Cash provided by (used in) investing activities	(2,436)	6,963
Cash provided by financing activities	432,969	1,653
Net increase (decrease) in cash and cash equivalents	$ 419,403	$ (16,523)

Cash Used in Operating Activities

Net cash used in operating activities was $11.1 million and $25.1 million for the nine months ended September 30, 2021 and 2020, respectively.

Cash used in operating activities in the nine months ended September 30, 2021 was primarily due to our net loss of $48.4 million, adjusted by non-cash charges of $5.6 million and net changes in our net operating assets and liabilities of $31.7 million. Our non-cash charges consisted of a change in the fair value of the MSKCC success payments liability of $3.6 million, $1.9 million of stock-based compensation, $1.0 million of acquired in-process research development, which represents an investing activity, and $0.7 million of depreciation and amortization expense, which were offset by our PPP Loan extinguishment gain upon the loan forgiveness of $1.6 million. The changes in our net operating assets and liabilities were due to increases of $30.7 million in deferred revenue, $4.9 million in accrued expenses and other current liabilities, $0.9 million in deferred rent and lease incentive liability, and $0.8 million in accounts payable, offset by increases of $2.8 million in prepaid expenses and other current assets, $1.7 million in other receivables, $0.5 million in contract assets, $0.4 million in accounts receivable, and $0.2 million in other assets.

Cash used in operating activities in the nine months ended September 30, 2020 was primarily due to our net loss for the nine months of $19.6 million, adjusted by non-cash charges of $4.9 million and net changes in our net operating assets and liabilities of $0.6 million. Our non-cash charges consisted of $0.8 million of stock-based compensation, a change in the fair value of equity securities of $0.7 million, $0.7 million of depreciation and amortization expense, and $0.4 million of acquired in-process research and development, which represents an investing activity. These were offset by receipt of non-cash consideration for licensing and collaboration revenue in the amount of $7.6 million. The changes in our net operating assets and liabilities were primarily due to decreases of $1.5 million in prepaid expenses and other current assets, $0.2 million in contract assets, $0.1 million in other receivables, and an increase of $1.1 million in accrued expenses and other current liabilities, partially offset by a decrease of $1.9

million in accounts payable, $0.7 million in deferred revenue, $0.6 million in deferred tax liabilities, and $0.4 million in other liabilities.

Cash Provided by (Used in) Investing Activities

During the nine months ended September 30, 2021 cash used in investing activities was $2.4 million. During the nine months ended September 30, 2020, cash provided by investing activities was $7.0 million.

Cash used in investing activities for the nine months ended September 30, 2021 was primarily due to purchases of property and equipment of $1.4 million and payments for the acquisition of in-process research and development of $1.0 million.

Cash provided by investing activities for the nine months ended September 30, 2020 was primarily due to the receipt of $7.7 million in proceeds from the sale of Intellia common stock. This was partially offset by cash paid for the acquisition of in-process research and development of $0.4 million and purchases of property and equipment of $0.3 million.

Cash Provided by Financing Activities

During the nine months ended September 30, 2021 and 2020, cash provided by financing activities was $433.0 million and $1.7 million, respectively.

Cash provided by financing activities for the nine months ended September 30, 2021 was primarily due to the receipt of net proceeds from our IPO in the amount of $321.0 million, net proceeds from the issuance of Series C convertible preferred stock in the amount of $108.8 million, proceeds from the exercise of stock options of $2.1 million, and repayment of the promissory note issued to our president and chief executive officer in the amount of $1.2 million, partially offset by principal payments for a capital lease of $0.1 million.

Cash provided by financing activities for the nine months ended September 30, 2020 was primarily due to our receipt of proceeds from our PPP Loan in the amount of $1.6 million and receipt of proceeds from exercise of stock options of $0.2 million, offset by principal payments for a capital lease of $0.1 million.

Contractual Obligations and Commitments

The following summarizes our contractual obligations as of September 30, 2021:

	Due by Period				
	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years	Total
			(in thousands)		
Operating leases [1]	$ 3,459	$ 7,248	$ 8,183	$ 23,750	$ 42,640
Total obligations [2]	$ 3,459	$ 7,248	$ 8,183	$ 23,750	$ 42,640

(1) The operating lease obligations are primarily related to the facility lease for our corporate headquarters and research and development facility in Berkeley, California, which was amended on March 31, 2021 to include additional office and laboratory space and to extend the lease term to March 31, 2031.

(2) Excludes payment obligations under our in-license and assignment agreements as of September 30, 2021, which are contingent upon our achievement of predefined clinical, regulatory, and commercial milestones; in the case of the MSKCC Agreement, changes in the price of our common stock and any change in control; and our royalty payment obligations on net product sales by our licensees. See Note 4 to our condensed consolidated financial statements included elsewhere in this Quarterly Report.

We enter into contracts in the normal course of business with suppliers, CMOs, CROs, clinical trial sites, and the like. These agreements provide for termination at the request of either party generally with less than one-year notice and, therefore, we believe that our non-cancelable obligations under these agreements are not material and they are not included in the table above.

We have not included milestones, royalty, or other payments due under our existing license agreements in the table above due to the uncertainty of the occurrence of the events requiring payment under those agreements.

Under the MSKCC Agreement, we are obligated to make success payments to MSKCC of up to $35.0 million if our stock price increases by certain multiples of increasing value based on a comparison of the fair market value of our common stock with $5.1914 per share, which is the split adjusted initial price at which our Series B convertible preferred stock was sold, as adjusted for future stock splits, during a specified time interval. The relevant time interval commences when the first patient is dosed with a licensed CD371 product candidate in the first phase 1 clinical trial and ends upon the earlier of the third anniversary of approval by the FDA of our, our affiliate's, or licensee's biologics license application for a licensed CD371 product or 10 years from the date the first patient was dosed with a licensed CD371 product in the first phase 1 clinical trial. Additionally, if we undergo a change of control during the specified time interval, we may owe a change of control payment, depending upon the increase in our stock price due to the change of control and also to what extent the MSKCC success payments have already been paid. In no event will the combination of the MSKCC success payments and the change of control payment exceed $35.0 million. The relevant time period during which MSKCC is eligible for success payments and a change of control payment has not yet commenced. As of September 30, 2021 and December 31, 2020, the timing and likelihood of triggering the MSKCC success payments are uncertain and therefore any related payments are not included in the tables above. See Note 4 to our condensed consolidated financial statements included elsewhere in this Quarterly Report for more information about the MSKCC success payments liability.

Off-Balance Sheet Arrangements

During the periods presented, we did not have, nor do we currently have, any off-balance sheet arrangements as defined under applicable SEC rules.

Critical Accounting Policies and Significant Judgments and Estimates

Our critical accounting policies are disclosed in our audited consolidated financial statements for the year ended December 31, 2020, and the related notes included in the Final Prospectus. Since the date of such financial statements, there have been no material changes to our significant accounting policies other than those described in Note 2 to our condensed consolidated financial statements included elsewhere in this Quarterly Report.

Recently Issued Accounting Pronouncements

See Note 2 to our condensed consolidated financial statements included elsewhere in this Quarterly Report for more information regarding recently issued accounting pronouncements.

Indemnification Agreements

As permitted under Delaware General Corporation Law and in accordance with our Amended and Restated Bylaws, we indemnify our executive officers and directors for certain events or occurrences while such officer or director is or was serving in such capacity. We are also party to indemnification agreements with our executive officers, directors, and controller. We believe the fair value of the indemnification rights and agreements is minimal. Accordingly, we have not recorded any liabilities for these indemnification rights and agreements as of September 30, 2021.

Emerging Growth Company Status

We are an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. We have elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that we (a) are no longer an emerging growth company or (b) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our condensed consolidated financial statements may not be comparable to those of companies that comply with the new or revised accounting pronouncements as of public company effective dates.

We expect to use the extended transition period for any other new or revised accounting standards during the period in which we remain an emerging growth company. As described in "Recent Accounting Pronouncements" in Note 2 to our condensed consolidated financial statements included elsewhere in this Quarterly Report, we have early adopted multiple accounting standards, because the JOBS Act does not preclude an emerging growth company from adopting a new or revised accounting standard earlier than the time that such standard applies to private companies, to the extent early adoption is allowed by the accounting standard.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

We are exposed to market risks in the ordinary course of our business. These risks primarily include interest rate sensitivities.

As of September 30, 2021, we had cash and cash equivalents of $435.3 million, which consisted of bank deposits and money market mutual funds. The primary objective of our investment activities is to preserve capital to fund our operations while earning a low-risk return. Because our money market mutual funds are short-term in duration, we believe that our exposure to interest rate risk is not significant and that a hypothetical 1% change in market interest rates during any of the periods presented would not have had a significant impact on the total value of our portfolio.

We are not currently exposed to significant market risk related to changes in foreign currency exchange rates; however, we have contracted with and may continue to contract with vendors that are located outside of the United States and our operations may be subject to fluctuations in foreign currency exchange rates in the future.

Inflation generally affects us by increasing our cost of labor and research and development costs. We do not believe that inflation had a material effect on our business, results of operations, or financial condition during the three and nine months ended September 30, 2021 and 2020.

Item 4. Controls and Procedures.

Management's Evaluation of our Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Securities and Exchange Act of 1934, as amended (the "Exchange Act") is (a) recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and (b) accumulated and communicated to our management, including our principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure.

As of September 30, 2021, our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) promulgated under the Exchange Act). Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and our management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Our principal executive officer and principal financial officer have concluded that, based upon the evaluation described above, as of September 30, 2021, our disclosure controls and procedures were effective at a reasonable assurance level.

Changes in Internal Control over Financial Reporting

We regularly review our system of internal control over financial reporting and make changes to our processes and systems to improve controls and increase efficiency while ensuring that we maintain an effective internal control environment. Changes may include such activities as implementing new and more efficient systems, consolidating activities, and migrating processes. During the quarter ended September 30, 2021, we implemented an ERP system as well as hired additional experienced staff in an effort to strengthen our overall control environment. Other than these changes, there were no changes in our internal control over financial reporting 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.

From time to time, we may be subject to various legal proceedings and claims that arise in the ordinary course of our business activities. Regardless of the outcome, litigation can have a material adverse effect on us due to defense and settlement costs, diversion of our management resources, and other factors. We are not currently a party to any legal proceeding that, we believe, the ultimate outcome of which would have a material adverse effect on our business, operating results, cash flows, or financial condition.

Intellia Arbitration

On October 16, 2018, Intellia initiated an arbitration proceeding with JAMS asserting that we had violated the terms and conditions of the Intellia License Agreement (the "Intellia Arbitration"). The Intellia Arbitration involved whether two patent families controlled by us and relating, respectively, to CRISPR-Cas9 chRDNA guides and Cas9 scaffolds, are included in the Intellia License Agreement. On September 19, 2019, we received an interim award from the arbitration panel determining that the two patent families are included in the Intellia License Agreement, but the panel granted us an exclusive leaseback to Cas9 chRDNA guides under economic terms to be negotiated by the parties. On February 6, 2020, the arbitration panel clarified that the leaseback relates solely to our CB-010 product candidate, and instructed the parties to negotiate economic terms based on a leaseback of that scope. On June 16, 2021, we entered into a leaseback agreement with Intellia, which resolved the dispute, and, on July 21, 2021, the arbitration panel dismissed the Intellia Arbitration with prejudice. See Note 4 to our condensed consolidated financial statements included elsewhere in this Quarterly Report.

Item 1A. Risk Factors.

There have been no material changes to the Risk Factors previously disclosed in the Final Prospectus. The risks described in the Final Prospectus are not the only risks facing our company. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition, and/or operating results.

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

Unregistered Sales of Equity Securities for the Three Months Ended September 30, 2021

On July 27, 2021, we issued 26,234,654 shares of our common stock, at a par value of $0.0001 per share ("Common Stock"), upon the conversion (the "Conversion") of all outstanding shares of our Series A, A-1, B, and C convertible preferred stock (collectively, the "Preferred Stock"). Conversion of the Preferred Stock into shares of Common Stock occurred automatically immediately prior to the effectiveness of our Amended and Restated Certificate of Incorporation filed in connection with the closing of our IPO. The shares of Common Stock issued in the Conversion were issued in reliance on the exemptions contained in Sections 3(a)(9) and 4(a)(2) of the Securities Act.

In July 2021, we issued an aggregate of 513,698 shares of our common stock to current and former employees and consultants upon their exercise of stock options prior to our IPO for an aggregate cash consideration of approximately $0.8 million. These securities were issued in reliance on an exemption set forth in Rule 701 under the Securities Act, as transactions pursuant to compensatory benefit plans.

Use of Proceeds from our IPO

The net proceeds from our IPO, after deducting underwriting discounts and commissions and offering expenses of $28.6 million, were $321.0 million. We are holding a significant portion of the balance of the net proceeds from our IPO in money market mutual funds. There has been no material change in our planned use of the net proceeds from our IPO described in the Final Prospectus.

Item 6. Exhibits.

Exhibit Number	Description
3.1	Amended and Restated Certificate of Incorporation of Caribou Biosciences, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed with the SEC on July 28, 2021)
3.2	Amended and Restated Bylaws of Caribou Biosciences, Inc. (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K, filed with the SEC on July 28, 2021)
10.1*+	Form of Stock Option Agreement under the 2013 Equity Incentive Plan, as amended and restated on April 3, 2019.
31.1*	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Exchange Act, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Exchange Act, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
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.
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.
101.INS*	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.
101.SCH*	Inline XBRL Taxonomy Extension Schema Document
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104*	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Filed herewith.

** Furnished herewith.

\+ Indicates management contract or compensatory plan.

SIGNATURES

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

Caribou Biosciences, Inc.

Date: November 9, 2021

By: /s/ Rachel E. Haurwitz

Rachel E. Haurwitz
President and Chief Executive Officer
(Principal Executive Officer)

Date: November 9, 2021

By: /s/ Jason V. O'Byrne

Jason V. O'Byrne
Chief Financial Officer
(Principal Financial Officer)

Exhibit 10.1

Exhibit 10.1

CARIBOU BIOSCIENCES, INC.

AMENDED AND RESTATED 2013 EQUITY INCENTIVE PLAN

STOCK OPTION AGREEMENT

Unless otherwise defined herein, the terms defined in the Amended and Restated 2013 Equity Incentive Plan (the "Plan") shall have the same defined meanings in this Stock Option Agreement (the "Option Agreement"). For the avoidance of doubt, this Option Agreement is deemed to be an Award Agreement (as defined under the Plan).

I. NOTICE OF STOCK OPTION GRANT

Name:

Address:

The undersigned Participant has been granted an Option to purchase Common Stock of the Company, subject to the terms and conditions of the Plan and this Option Agreement, as follows:

Date of Grant:

Vesting Commencement Date:

Exercise Price per Share:

Total Number of Shares Granted:

Total Exercise Price:

Type of Option:

Incentive Stock Option Nonstatutory Stock Option

Term/Expiration Date: _____

Vesting Schedule:

This Option shall be exercisable, in whole or in part, according to the following vesting schedule:

[Twenty-five percent (25%) of the Shares subject to the Option shall vest on the one (1) year anniversary of the Vesting Commencement Date, and one forty-eighth (I/48th) of the Shares subject to the Option shall vest each month thereafter on the same day of the month as the Vesting Commencement Date (and if there is no corresponding day, on the last day of the month), subject to Participant continuing to be a Service Provider through each such date.]

Termination Period:

This Option shall be exercisable for three (3) months after Participant ceases to be a Service Provider, unless such termination is due to Participant's death or Disability, in which case this Option shall be exercisable for twelve (12) months after Participant ceases to be a Service Provider. Notwithstanding the foregoing sentence, in no event may this Option be exercised after the Term/Expiration Date as provided above and this Option may be subject to earlier termination as provided in Section 13 of the Plan.

II. AGREEMENT

1. Grant of Option. The Administrator of the Company hereby grants to the Participant named in the Notice of Stock Option Grant in Part I of this Option Agreement ("Participant"), an option (the "Option") to purchase the number of Shares set forth in the Notice of Stock Option Grant, at the exercise price per Share set forth in the Notice of Stock Option Grant (the "Exercise Price"), and subject to the terms and conditions of the Plan, which is incorporated herein by reference. Subject to Section 19 of the Plan, in the event of a conflict between the terms and conditions of the Plan and this Option Agreement, the terms and conditions of the Plan shall prevail.

If designated in the Notice of Stock Option Grant as an Incentive Stock Option ("ISO"), this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code. Nevertheless, to the extent that it exceeds the $100,000 rule of Code Section 422(d), this Option shall be treated as a Nonstatutory Stock Option ("NSO"). Further, if for any reason this Option (or portion thereof) shall not qualify as an ISO, then, to the extent of such nonqualification, such Option (or portion thereof) shall be regarded as a NSO granted under the Plan. In no event shall the Administrator, the Company or any Parent or Subsidiary or any of their respective employees or directors have any liability to Participant (or any other person) due to the failure of the Option to qualify for any reason as an ISO.

2. Exercise of Option.

(a) Right to Exercise. This Option shall be exercisable during its term in accordance with the Vesting Schedule set out in the Notice of Stock Option Grant and with the applicable provisions of the Plan and this Option Agreement.

(b) Method of Exercise. This Option shall be exercisable by delivery of an exercise notice in the form attached as Exhibit A (the "Exercise Notice") or in a manner and pursuant to such procedures as the Administrator may determine, which shall state the election to exercise the Option, the number of Shares with respect to which the Option is being exercised (the "Exercised Shares"), and such other representations and agreements as may be required by the Company. The Exercise Notice shall be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares, together with any amount required to fully satisfy any applicable taxes, withholding, required deductions or other required payments (unless. in the sole discretion of the Administrator, appropriate arrangements have been made to satisfy any such obligations). This Option shall be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price and satisfaction of any applicable tax, withholding, required deductions or other required payments.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise comply with Applicable Laws. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to Participant on the date on which the Option is exercised with respect to such Shares.

3. Participant's Representations. In the event the Shares have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), at the time this Option is exercised, Participant shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit B.

4. Lock-Up Period. Participant hereby agrees that Participant shall not offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any Common Stock (or other securities) of the Company or enter into any swap, hedging, or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Common Stock (or other securities) of the Company held by Participant (other than those included in the registration) for a period specified by the representative of the underwriters of Common Stock (or other securities) of the Company not to exceed one hundred and eighty (180) days following the effective date of any registration statement of the Company filed under the Securities Act (or such other period as may be requested by the Company or the underwriters to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in NASD Rule 271l(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto).

Participant agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriter which are consistent with the foregoing or which are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, Participant shall provide, within ten (10) days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section 4 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of said one hundred and eighty (180) day (or other) period. Participant agrees that any transferee of the Option or shares acquired pursuant to the Option shall be bound by this Section 4.

5. Method of Payment. Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Participant:

(a) cash;

(b) check;

(c) consideration received by the Company under a formal cashless exercise program adopted by the Company in connection with the Plan, if any; or

(d) surrender of other Shares which (i) shall be valued at their Fair Market Value on the date of exercise, and (ii) must be owned free and clear of any liens, claims, encumbrances or security interests, if accepting such Shares, in the sole discretion of the Administrator, shall not result in any adverse accounting consequences to the Company.

6. Restrictions on Exercise. This Option may not be exercised until such time as the Plan has been approved by the stockholders of the Company, or if the issuance of such Shares upon such exercise or the method of payment of consideration for such shares would constitute a violation of any Applicable Law, including any applicable U.S. federal or state securities laws or any other law or regulation, including any rule under Part 221 of Title 12 of the Code of Federal Regulations as promulgated by the Federal Reserve Board.

7. Non-Transferability of Option.

(a) This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Participant only by Participant. The terms of the Plan and this Option Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of Participant.

(b) Further, until the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, or after the Administrator determines that it is, will, or may no longer be relying upon the exemption from registration of Options under the Exchange Act as set forth in Rule 12h-l(f) promulgated under the Exchange Act (the "Reliance End Date"), Participant shall not transfer this Option or, prior to exercise, the Shares subject to this Option, in any manner other than (i) to persons who are "family members" (as defined in Rule 70l(c)(3) of the Securities Act) through gifts or domestic relations orders, or (ii) to an executor or guardian of Participant upon the death or disability of Participant. Until the Reliance End Date, the Options and, prior to exercise, the Shares subject to this Option, may not be pledged, hypothecated or otherwise transferred or disposed of, including by entering into any short position, any "put equivalent position" or any "call equivalent position" (as defined in Rule 16a-l(h) and Rule 16a-l(b) of the Exchange Act, respectively), other than as permitted in clauses (i) and (ii) of this paragraph.

8. Term of Option. This Option may be exercised only within the term set out in the Notice of Stock Option Grant and may be exercised during such term only in accordance with the Plan and the terms of this Option Agreement.

9. Tax and Similar Obligations.

(a) General. As a condition to the grant, vesting and exercise of this Option and as further set forth in Section 15 of the Plan, Participant hereby agrees to make adequate provision for the satisfaction of (and will indemnify the Company and any Subsidiary or Parent for) any applicable taxes or tax withholdings, social contributions, required deductions, or other payments, if any ("Tax-Related Items"), which arise upon the grant, vesting or exercise of this Option, ownership or disposition of Shares, receipt of dividends, if any, or otherwise in connection with this Option or the Shares, whether by

withholding, direct payment to the Company, or otherwise as determined by the Company in its sole discretion. Regardless of any action the Company or any Subsidiary or Parent takes with respect to any or all applicable Tax-Related Items, Parent acknowledges and agrees that the ultimate liability for all Tax-Related Items is and remains Optionee' s responsibility and may exceed any amount actually withheld by the Company or any Subsidiary or Parent. Participant further acknowledges and agrees that Participant is solely responsible for filing all relevant documentation that may be required in relation to this Option or any Tax-Related Items (other than filings or documentation that is the specific obligation of the Company or any Subsidiary or Parent pursuant to Applicable Laws), such as but not limited to personal income tax returns or reporting statements in relation to the grant, vesting or exercise of this Option, the holding of Shares or any bank or brokerage account, the subsequent sale of Shares, and the receipt of any dividends. Participant further acknowledges that the Company makes no representations or undertakings regarding the treatment of any Tax-Related Items and does not commit to and is under no obligation to structure the terms or any aspect of the Option to reduce or eliminate Participant's liability for Tax-Related Items or achieve any particular tax result. Participant also understands that Applicable Laws may require varying Share or option valuation methods for purposes of calculating Tax-Related Items, and the Company assumes no responsibility or liability in relation to any such valuation or for any calculation or reporting of income or Tax-Related Items that may be required of Participant under Applicable Laws. Further, if Participant has become subject to Tax-Related Items in more than one jurisdiction, Participant acknowledges that the Company or any Subsidiary or Parent may be required to withhold or account for Tax-Related Items in more than one jurisdiction.

(b) The Company is not obligated, and will have no liability for failure, to issue or deliver any Shares upon exercise of this Option unless such issuance or delivery would comply with the Applicable Laws, with such compliance determined by the Company in consultation with its legal counsel. Furthermore, Participant understands that the Applicable Laws of the country in which Participant is residing or working at the time of grant, vesting, and/or exercise of this Option (including any rules or regulations governing securities, foreign exchange, tax, labor or other matters) may restrict or prevent exercise of this Option.

(c) Notice of Disqualifying Disposition of ISO Shares. If the Option granted to Participant herein is an ISO, and if Participant sells or otherwise disposes of any of the Shares acquired pursuant to the ISO on or before the later of (i) the date two (2) years after the Date of Grant, or (ii) the date one (1) year after the date of exercise, Participant shall immediately notify the Company in writing of such disposition. Participant agrees that Participant may be subject to income tax withholding by the Company on the compensation income recognized by Participant.

(d) Code Section 409A. Under Code Section 409A, an Option that vests after December 31, 2004 (or that vested on or prior to such date but which was materially modified after October 3, 2004) that was granted with a per Share exercise price that is determined by the Internal Revenue Service (the “IRS”) to be less than the Fair Market Value of a Share on the date of grant (a “discount option”) may be considered “deferred compensation.” An Option that is a “discount option” may result in (i) income recognition by Participant prior to the exercise of the Option, (ii) an additional twenty percent (20%) federal income tax, and (iii) potential penalty and interest charges. The “discount option” may also result in additional state income, penalty and interest tax to the Participant. Participant acknowledges that the Company cannot and has not guaranteed that the IRS will agree that the per Share exercise price of this Option equals or exceeds the Fair Market Value of a Share on the date of grant in a later

examination. Participant agrees that if the IRS determines that the Option was granted with a per Share exercise price that was less than the Fair Market Value of a Share on the date of grant, Participant shall be solely responsible for Participant's costs related to such a determination.

10. Entire Agreement; Governing Law. The Plan is incorporated herein by reference. The Plan and this Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof, and may not be modified adversely to the Participant's interest except by means of a writing signed by the Company and Participant. This Option Agreement is governed by the internal substantive laws but not the choice of law rules of California.

11. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANYWAY WITH PARTICIPANT'S RIGHT OR THE RIGHT OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) TO TERMINATE PARTICIPANT'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

Participant acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Participant has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option. Participant further agrees to notify the Company upon any change in the residence address indicated below.

PARTICIPANT	CARIBOU BIOSCIENCES, INC.
Signature	By
_____	_____
Print Name	
Title	
Residence Address	

EXHIBIT A

2013 EQUITY INCENTIVE PLAN EXERCISE NOTICE

Caribou Biosciences, Inc.
2929 7th Street, Suite 105
Berkeley, CA 94710

Attention: President

1. Exercise of Option. Effective as of today,____, _____, the undersigned ("Participant") hereby elects to exercise Participant's option (the "Option") to purchase _____ shares of the Common Stock (the "Shares") of Caribou Biosciences, Inc. (the "Company") under and pursuant to the 2013 Equity Incentive Plan (the "Plan") and the Stock Option Agreement dated_____, _____ (the "Option Agreement").

2. Delivery of Payment. Participant herewith delivers to the Company the full purchase price of the Shares, as set forth in the Option Agreement, and has satisfied, or made arrangements agreeable to the Company to satisfy, any and all taxes, withholding, required deductions or other payments due in connection with the exercise of the Option.

3. Representations of Participant. Participant acknowledges that Participant has received, read and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Stockholder. Until the issuance of the Shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Common Stock subject to an Award, notwithstanding the exercise of the Option. The Shares shall be issued to Participant as soon as practicable after the Option is exercised in accordance with the Option Agreement. No adjustment shall be made for a dividend or other right for which the record date is prior to the date of issuance except as provided in Section 14 of the Plan.

5. Limitations on Transfer. Participant acknowledges and agrees that the Shares purchased under this Exercise Notice are subject to (i) the transfer restrictions set forth in Section 13 of the Plan, (ii) the terms and conditions that apply to the Company's Common Stock, as set forth in the Company's Bylaws, as may be in effect at the time of any proposed transfer (the "Bylaw Provisions"), and (iii) any other limitations on transfer created by Applicable Laws. Participant shall not assign, encumber or dispose of any interest in the Shares except to the extent permitted by, and in compliance with, Section 13 of the Plan, the Bylaw Provisions, Applicable Laws, and the provisions below.

(a) Transfer Restrictions; Right of First Refusal. Before any Shares held by Participant or any transferee (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), to the extent the Company's approval is required by the Plan or any applicable Bylaw Provisions, the Company or its assignee(s) shall have the right to approve such sale or transfer, in full or in part, and shall then have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section 5 (the "Right of First Refusal").

(i) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares (the "Offered Price"), and the Holder shall offer the Shares at the Offered Price to the Company or its assignee(s).

(ii) Exercise of Right of First Refusal. At any time within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all or any portion of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (iii) below.

(iii) Purchase Price. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section 5 shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(iv) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within thirty (30) days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(v) Holder's Right to Transfer. If all or any portion of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section 5, then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, *provided* that such sale or other transfer is consummated within one hundred and twenty (120) days after the date of the Notice, that any such sale or other transfer is effected in accordance with any applicable securities laws and that the Proposed Transferee agrees in writing that the provisions of this Section 5 shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(vi) Exception for Certain Family Transfers. Anything to the contrary contained in this Section 5 notwithstanding, the transfer of any or all of the Shares during the Participant's lifetime or on the Participant's death by will or intestacy to the Participant's immediate family or a trust for the benefit of the Participant's immediate family shall be exempt from the provisions of this Section 5 and Section 13 of the Plan. "Immediate Family" as used herein shall mean Participant's spouse/domestic partner, father, mother, siblings, children (including stepchildren) and any person sharing Holder's household (other than a tenant or an employee).

(b) Company's Right to Purchase upon Involuntary Transfer**.** In the event of any transfer by operation of law or other involuntary transfer (including death or divorce but excluding a transfer to Immediate Family as set forth in Section (a)(vi) above) of all or a portion of the Shares by the record holder thereof, the Company shall have an option to purchase any or all of the Shares transferred at the

Fair Market Value of the Shares on the date of transfer (as determined by the Company in its sole discretion). Upon such a transfer, the Holder shall promptly notify the Secretary of the Company of such transfer. The right to purchase such Shares shall be provided to the Company for a period of thirty (30) days following receipt by the Company of written notice from the Holder.

(c) Assignment**.** The right of the Company to purchase any part of the Shares may be assigned in whole or in part to any holder or holders of capital stock of the Company or other persons or organizations.

(d) Restrictions Binding on Transferees. All transferees of Shares or any interest therein will receive and hold such Shares or interest subject to the Plan, any applicable Bylaw Provisions, the provisions of the Option Agreement and this Exercise Notice, including, without limitation, Sections 5 and 9 of this Exercise Notice, Section 4 of the Option Agreement and Section 13 of the Plan. Any sale or transfer of the Shares shall be void unless the provisions of this Exercise Notice are satisfied.

(e) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to any Shares upon the earlier of (i) the first sale of Common Stock of the Company to the general public, or (ii) a Change in Control in which the successor corporation has equity securities that are publicly traded.

6. Tax Consultation. Participant understands that Participant may suffer adverse tax consequences as a result of Participant's purchase or disposition of the Shares. Participant represents that Participant has consulted with any tax consultants Participant deems advisable in connection with the purchase or disposition of the Shares and that Participant is not relying on the Company for any tax advice.

7. Voting Provisions. As a condition precedent to entering into this Exercise Notice, at the request of the Company, Participant shall become a party to any voting agreement to which the Company is a party at the time of Participant's execution and delivery of this Exercise Notice, as such voting agreement may be thereafter amended from time to time (the "Voting Agreement"), by executing an adoption agreement or counterpart signature page agreeing to be bound by and subject to the terms of the Voting Agreement and to vote the Shares in the capacity of a "Common Holder" and a "Stockholder," as such terms may be defined in the Voting Agreement.

8. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. Participant understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by the Company or by state or federal securities laws:

> THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COUNSEL SATISFACTORY TO THE ISSUER OF THESE

SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND A RIGHT OF FIRST REFUSAL HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE PLAN AND EXERCISE NOTICE BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, COPIES OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON TRANSFER FOR A PERIOD OF TIME FOLLOWING THE EFFECTIVE DATE OF THE UNDERWRITTEN PUBLIC OFFERING OF THE COMPANY'S SECURITIES SET FORTH IN AN AGREEMENT BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES AND MAY NOT BE SOLD OR OTHERWISE DISPOSED OF BY THE HOLDER PRIOR TO THE EXPIRATION OF SUCH PERIOD WITHOUT THE CONSENT OF THE COMPANY OR THE MANAGING UNDERWRITER.

Any legend required by the Voting Agreement, as applicable.

(b) Stop-Transfer Notices. Participant agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Exercise Notice or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

9. Waiver of Statutory Information Rights. Participant acknowledges and understands that, but for the waiver made herein, Participant would be entitled, upon written demand under oath stating the purpose thereof, to inspect for any proper purpose, and to make copies and extracts from, the Company's stock ledger, a list of its stockholders, and its other books and records, and the books and records of subsidiaries of the Company, if any, under the circumstances and in the manner provided in Section 220 of the Delaware General Corporation Law (any and all such rights, and any and all such other rights of Participant as may be provided for in Section 220, the "Inspection Rights"). In light of the foregoing, until the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act, Participant hereby unconditionally and irrevocably waives the Inspection Rights, whether such Inspection Rights would be exercised or pursued directly or indirectly pursuant to Section 220 or otherwise, and covenants and agrees never to directly or indirectly commence, voluntarily aid in any way, prosecute, assign, transfer, or cause to be commenced any claim, action, cause of action, or other proceeding to pursue or exercise the Inspection Rights. The foregoing waiver applies to the Inspection

Rights of Participant in Participant's capacity as a stockholder and shall not affect any rights of a director, in his or her capacity as such, under Section 220. The foregoing waiver shall not apply to any contractual inspection rights of Participant under any written agreement with the Company.

10. Successors and Assigns. The Company may assign any of its rights under this Exercise Notice to single or multiple assignees, and this Exercise Notice shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Exercise Notice shall be binding upon Participant and his or her heirs, executors, administrators, successors and assigns.

11. Interpretation. Any dispute regarding the interpretation of this Exercise Notice shall be submitted by Participant or by the Company forthwith to the Administrator, which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Administrator shall be final and binding on all parties.

12. Governing Law; Severability. This Exercise Notice is governed by the internal substantive laws, but not the choice of law rules, of California. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Exercise Notice shall continue in full force and effect.

13. Entire Agreement. The Plan and Option Agreement are incorporated herein by reference. This Exercise Notice, the Plan, the Option Agreement and the Investment Representation Statement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof and may not be modified adversely to the Participant's interest except by means of a writing signed by the Company and Participant.

14. California Corporate Securities Law. THE SALE OF THE SECURITIES WHICH ARE THE SUBJECT OF THIS AGREEMENT HAS NOT BEEN QUALIFIED WITH THE COMMISSIONER OF BUSINESS OVERSIGHT OF THE STATE OF CALIFORNIA AND THE ISSUANCE OF THE SECURITIES OR THE PAYMENT OR RECEIPT OF ANY PART OF THE CONSIDERATION THEREFOR PRIOR TO THE QUALIFICATION IS UNLAWFUL, UNLESS THE SALE OF SECURITIES IS EXEMPT FROM QUALIFICATION BY SECTION 25100, 25102 OR 25105 OF THE CALIFORNIA CORPORATIONS CODE. THE RIGHTS OF ALL PARTIES TO THIS AGREEMENT ARE EXPRESSLY CONDITIONED UPON THE QUALIFICATION BEING OBTAINED, UNLESS THE SALE IS SO EXEMPT

Submitted by:

PARTICIPANT

Signature

By
Print Name

Address:
Address:

Accepted by:

CARIBOU BIOSCIENCES, INC.

Print Name

Title

2929 7th Street, Suite 105
Berkeley, CA 94710

Date Received

EXHIBIT B

INVESTMENT REPRESENTATION STATEMENT

PARTICIPANT:

COMPANY: CARIBOU BIOSCIENCES, INC.

SECURITY: COMMON STOCK

AMOUNT:

DATE:

In connection with the purchase of the above-listed Securities, the undersigned Participant represents to the Company the following:

(a) Participant is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Participant is acquiring these Securities for investment for Participant's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

(b) Participant acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Participant's investment intent as expressed herein. In this connection, Participant understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Participant's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one (1) year or any other fixed period in the future. Participant further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Participant further acknowledges and understands that the Company is under no obligation to register the Securities. Participant understands that the certificate evidencing the Securities shall be imprinted with any legend required under applicable state securities laws.

(c) Participant is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to Participant, the exercise shall be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, ninety (90) days thereafter (or such longer period as any market stand-off agreement may require) the Securities exempt under Rule 701 may be resold, subject to the satisfaction of the applicable conditions specified by Rule 144, including in the case of affiliates (1) the availability of certain public information about the Company, (2) the amount of Securities being sold during any three (3) month period not exceeding specified limitations, (3) the resale being made in an unsolicited "broker's transaction", transactions directly with a "market maker" or "riskless principal

transactions" (as those terms are defined under the Securities Exchange Act of 1934) and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which may require (i) the availability of current public information about the Company; (ii) the resale to occur more than a specified period after the purchase and full payment (within the meaning of Rule 144) for the Securities; and (iii) in the case of the sale of Securities by an affiliate, the satisfaction of the conditions set forth in sections (2), (3) and (4) of the paragraph immediately above.

(d) Participant further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption shall be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 shall have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Participant understands that no assurances can be given that any such other registration exemption shall be available in such event.

PARTICIPANT

Signature

Print Name

Date

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, Rachel E. Haurwitz, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended September 30, 2021 of Caribou Biosciences, 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)) for the registrant and have:

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

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

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

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 9, 2021

By: /s/ Rachel E. Haurwitz

Rachel E. Haurwitz
President and Chief 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, Jason V. O'Byrne, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended September 30, 2021 of Caribou Biosciences, 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)) for the registrant and have:

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

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

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

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 9, 2021

By: /s/ Jason V. O'Byrne

Jason V. O'Byrne
Chief Financial 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 the Quarterly Report of Caribou Biosciences, Inc. (the "Company") on Form 10-Q for the period ended September 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), 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 result of operations of the Company.

Date: November 9, 2021

By: /s/ Rachel E. Haurwitz

Rachel E. Haurwitz
President and Chief 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 the Quarterly Report of Caribou Biosciences, Inc. (the "Company") on Form 10-Q for the period ended September 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), 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 result of operations of the Company.

Date: November 9, 2021

By: /s/ Jason V. O'Byrne

Jason V. O'Byrne
Chief Financial Officer