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

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2023

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: 001-38662

SUTRO BIOPHARMA, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**47-0926186**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
111 Oyster Point Blvd, South San Francisco, California	**94080**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (650) 881-6500

Not Applicable:
(Former name, former address and former fiscal year, if changed since last report)

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common stock, $0.001 par value	STRO	The Nasdaq Stock Market LLC (Nasdaq Global 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 August 7, 2023, the registrant had 60,527,043 shares of common stock, $0.001 par value per share, outstanding.

Table of Contents

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements.

Sutro Biopharma, Inc.
Condensed Balance Sheets
(Unaudited)
(In thousands, except share and per share amounts)

	June 30, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 235,095	$ 47,254
Marketable securities	123,198	255,090
Investment in equity securities	33,349	32,020
Accounts receivable	9,999	7,122
Prepaid expenses and other current assets	10,344	11,667
Total current assets	411,985	353,153
Property and equipment, net	23,636	24,621
Operating lease right-of-use assets	25,138	26,443
Other non-current assets	3,268	1,855
Restricted cash	872	872
Total assets	$ 464,899	$ 406,944
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 3,856	$ 4,797
Accrued compensation	9,509	13,142
Deferred revenue - current	18,036	16,759
Operating lease liability - current	5,934	4,585
Debt - current	10,197	12,500
Accrued expenses and other current liabilities	19,593	14,764
Total current liabilities	67,125	66,547
Deferred revenue - non-current	79,880	89,885
Operating lease liability - non-current	26,526	29,574
Debt - non-current	-	3,771
Deferred royalty obligation related to the sale of future royalties	136,653	-
Other non-current liabilities	-	119
Total liabilities	310,184	189,896
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Preferred stock, $0.001 par value — 10,000,000 shares authorized as of June 30, 2023 and December 31, 2022; 0 shares issued and outstanding as of June 30, 2023 and December 31, 2022	-	-
Common stock, $0.001 par value — 300,000,000 shares authorized as of June 30, 2023 and December 31, 2022; 60,471,041 and 57,499,541 shares issued and outstanding as of June 30, 2023 and December 31, 2022, respectively	60	58
Additional paid-in-capital	695,828	670,223
Accumulated other comprehensive loss	16	(618)
Accumulated deficit	(541,189)	(452,615)
Total stockholders' equity	154,715	217,048
Total Liabilities and Stockholders' Equity	$ 464,899	$ 406,944

See accompanying notes to unaudited interim condensed financial statements.

Sutro Biopharma, Inc.
Condensed Statements of Operations
(Unaudited)
(In thousands, except share and per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Revenues	$ 10,412	$ 28,096	$ 23,086	$ 33,993
Operating expenses				
Research and development	41,592	32,332	80,991	62,322
General and administrative	14,999	15,143	30,511	30,182
Total operating expenses	56,591	47,475	111,502	92,504
Loss from operations	(46,179)	(19,379)	(88,416)	(58,511)
Interest income	2,842	197	5,402	313
Unrealized gain (loss) on equity securities	8,321	(3,736)	1,329	(3,173)
Non-cash interest expense related to the sale of future royalties	(442)	-	(442)	-
Interest and other income (expense), net	(2,915)	(594)	(5,901)	(1,251)
Loss before provision for income taxes	(38,373)	(23,512)	(88,028)	(62,622)
Provision for income taxes	151	2,500	546	2,500
Net loss	$ (38,524)	$ (26,012)	$ (88,574)	$ (65,122)
Net loss per share, basic and diluted	$ (0.64)	$ (0.55)	$ (1.49)	$ (1.39)
Weighted-average shares used in computing basic and diluted loss per share	60,339,475	46,957,196	59,535,918	46,729,663

See accompanying notes to unaudited interim condensed financial statements.

Sutro Biopharma, Inc.
Condensed Statements of Comprehensive Loss
(Unaudited)
(In thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	**2022**	**2023**	**2022**
Net loss	$ (38,524)	$ (26,012)	$ (88,574)	$ (65,122)
Other comprehensive income (loss):				
Net unrealized income (loss) on available-for-sale securities	123	(204)	634	(1,042)
Comprehensive loss	$ (38,401)	$ (26,216)	$ (87,940)	$ (66,164)

See accompanying notes to unaudited interim condensed financial statements.

Sutro Biopharma, Inc.
Condensed Statements of Stockholders' Equity
(Unaudited)
(In thousands, except share amounts)

	Common Stock Shares	Common Stock Amount	Additional Paid-In-Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
Balances at December 31, 2022	57,499,541	$ 58	$ 670,223	$ (618)	$ (452,615)	$ 217,048
Exercise of common stock options	53,060	—	314	—	—	314
Issuance of common stock under Employee Stock Purchase Plan	239,060	—	1,097	—	—	1,097
Vesting of restricted stock units	801,769	—	—	—	—	—
Stock transaction associated with taxes withheld on restricted stock units	(73,003)	—	(451)	—	—	(451)
Stock-based compensation expense	—	—	6,021	—	—	6,021
Issuance of common stock in connection with At-The-Market sale, net of issuance costs of $308	1,641,374	2	10,921	—	—	10,923
Net unrealized income on available-for-sale securities	—	—	—	511	—	511
Net loss	—	—	—	—	(50,050)	(50,050)
Balances at March 31, 2023	60,161,801	$ 60	$ 688,125	$ (107)	$ (502,665)	$ 185,413
Vesting of restricted stock units	94,500	—	—	—	—	—
Stock transaction associated with taxes withheld on restricted stock units	(1,296)	—	(6)	—	—	(6)
Stock-based compensation expense	—	—	6,661	—	—	6,661
Issuance of common stock in connection with At-The-Market sale, net of issuance costs of $151	216,036	—	1,048	—	—	1,048
Net unrealized income on available-for-sale securities	—	—	—	123	—	123
Net loss	—	—	—	—	(38,524)	(38,524)
Balances at June 30, 2023	60,471,041	$ 60	$ 695,828	$ 16	$ (541,189)	$ 154,715

	Common Stock Shares	Common Stock Amount	Additional Paid-In-Capital	Accumulated Other Comprehensive (Loss)	Accumulated Deficit	Total Stockholders' Equity
Balances at December 31, 2021	46,327,131	$ 46	$ 586,243	$ (314)	$ (333,411)	$ 252,564
Exercise of common stock options	32,497	—	180	—	—	180
Issuance of common stock under Employee Stock Purchase Plan	146,165	—	1,006	—	—	1,006
Vesting of restricted stock units	465,731	1	(1)	—	—	—
Stock transaction associated with taxes withheld on restricted stock units	(44,665)	—	(404)	—	—	(404)
Stock-based compensation expense	—	—	6,974	—	—	6,974
Net unrealized loss on available-for-sale securities	—	—	—	(838)	—	(838)
Net loss	—	—	—	—	(39,110)	(39,110)
Balances at March 31, 2022	46,926,859	$ 47	$ 593,998	$ (1,152)	$ (372,521)	$ 220,372
Exercise of common stock options	298	—	2	—	—	2
Vesting of restricted stock units	31,375	—	—	—	—	—
Stock transaction associated with taxes withheld on restricted stock units	(1,296)	—	(9)	—	—	(9)
Stock-based compensation expense	—	—	6,696	—	—	6,696
Issuance of common stock in connection with At-The-Market sale, net of issuance costs of $690	1,716,996	2	8,211			8,213
Net unrealized loss on available-for-sale securities	—	—	—	(204)	—	(204)
Net loss	—	—	—	—	(26,012)	(26,012)
Balances at June 30, 2022	48,674,232	$ 49	$ 608,898	$ (1,356)	$ (398,533)	$ 209,058

See accompanying notes to unaudited interim condensed financial statements.

Sutro Biopharma, Inc.
Condensed Statements of Cash Flows
(Unaudited)
(In thousands)

	Six Months Ended June 30,	
	2023	**2022**
Operating activities		
Net loss	$ (88,574)	$ (65,122)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	3,346	2,724
(Accretion of discount) amortization of premium on marketable securities	(3,628)	913
Stock-based compensation	12,682	13,670
Non-cash lease expenses	1,305	1,325
Unrealized (gain) / loss on equity securities	(1,329)	3,173
Non-cash interest expense on deferred royalty obligation	442	—
Other	106	13
Changes in operating assets and liabilities:		
Accounts receivable	(2,877)	(85,217)
Prepaid expenses and other assets	(90)	(81)
Accounts payable	(659)	836
Accrued compensation	(3,633)	(3,669)
Accrued expenses and other liabilities	1,150	1,072
Deferred revenue	(8,728)	90,994
Change in operating lease liability	(1,699)	928
Net cash used in operating activities	(92,186)	(38,441)
Investing activities		
Purchases of marketable securities	(141,361)	(14,938)
Maturities of marketable securities	268,460	70,409
Sales of marketable securities	9,055	29,179
Purchases of equipment and leasehold improvements	(2,546)	(3,753)
Net cash provided by investing activities	133,608	80,897
Financing activities		
Proceeds from sales of common stock, net of issuance costs	11,971	8,595
Payment of debt	(6,250)	(3,125)
Proceeds from the sale of future royalties, net of issuance costs	139,744	—
Proceeds from exercise of common stock options	314	182
Taxes paid related to net shares settlement of restricted stock units	(457)	(413)
Proceeds from employee stock purchase plan	1,097	1,006
Net cash provided by financing activities	146,419	6,245
Net increase in cash, cash equivalents and restricted cash	187,841	48,701
Cash, cash equivalents and restricted cash at beginning of period	48,126	31,286
Cash, cash equivalents and restricted cash at end of period	$ 235,967	$ 79,987
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ 722	$ 998
Supplemental disclosure of non-cash investing and financing information:		
Purchases of equipment included in accounts payable and accrued expense	$ 141	$ 392
Financing component associated with program fees	$ 5,075	$ –
Issuance costs related to deferred royalty obligation in accrued expenses	$ 3,536	$ –
Issuance costs included in accounts payable	$ –	$ 382

See accompanying notes to unaudited interim condensed financial statements.

1. Organization and Principal Activities

Description of Business

Sutro Biopharma, Inc. (the "Company"), is a clinical-stage oncology company developing site-specific and novel-format antibody drug conjugates, or ADCs. The Company was incorporated on April 21, 2003 and is headquartered in South San Francisco, California.

The Company operates in one business segment, the development of biopharmaceutical products.

At-The-Market Sales

During the three and six months ended June 30, 2023, the Company sold an aggregate of 216,036 shares and 1,857,410 shares, respectively, of its common stock through its At-the-Market Facility ("ATM Facility") pursuant to its Open Market Sales Agreement℠ dated April 2, 2021 with Jefferies LLC ("Jefferies"), as sales agent (the "Sales Agreement").

During the three and six months ended June 30, 2023, the gross proceeds from these sales were approximately $1.2 million and $12.4 million, respectively, before deducting fees of approximately $0.2 million and $0.4 million, respectively, resulting in net proceeds of approximately $1.0 million and $12.0 million, respectively, to the Company.

Liquidity

The Company has incurred significant losses and has negative cash flows from operations. As of June 30, 2023, the Company had an accumulated deficit of $541.2 million. Management expects to continue to incur additional substantial losses in the foreseeable future as a result of the Company's research and development and other operational activities.

As of June 30, 2023, the Company had unrestricted cash, cash equivalents and marketable securities of $358.3 million and equity securities of $33.3 million, consisting solely of common stock of Vaxcyte, which are available to fund future operations. The Company will need to raise additional capital to support the completion of its research and development activities and to support its operations.

The Company believes that its unrestricted cash, cash equivalents, marketable securities and equity securities as of June 30, 2023 will enable the Company to maintain its operations for a period of at least 12 months following the filing date of its condensed financial statements.

2. Summary of Significant Accounting Policies

Basis of Presentation and Use of Estimates

The accompanying interim condensed financial statements of the Company are unaudited. These interim condensed financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP") and the applicable rules and regulations of the Securities and Exchange Commission ("SEC") for interim financial information. Accordingly, they do not include all the information and footnotes required by U.S. GAAP for complete financial statements. The December 31, 2022 condensed balance sheet was derived from the audited financial statements as of that date, but does not include all of the information and footnotes required by U.S. GAAP for complete financial statements.

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. The Company bases its estimates on historical experience and market-specific or other relevant assumptions that it believes are reasonable under the circumstances. The amounts of assets and liabilities reported on the Company's condensed Balance Sheets and the amounts of expenses and income reported for each of the periods presented are affected by estimates and assumptions, which are used for, but are not limited to, determining research and development periods under collaboration arrangements, stock-based compensation expense, valuation of marketable securities, impairment of long-lived assets, income taxes, deferred royalty obligation related to the sale of future royalties and related non-cash interest expense, and certain accrued liabilities. Actual results could differ from such estimates or assumptions.

The accompanying unaudited interim condensed financial statements have been prepared on the same basis as the audited financial statements and, in the opinion of management, reflect all adjustments of a normal recurring nature considered necessary to state fairly the Company's financial position, results of operations, comprehensive loss, and cash flows for the interim periods. The interim results for the three and six months ended June 30, 2023 are not necessarily indicative of the results that may be expected for the year ending December 31, 2023, or for any other future annual or interim period.

The information included in this Quarterly Report on Form 10-Q should be read in conjunction with the Company's audited financial statements included in the Annual Report on Form 10-K pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, for the year ended December 31, 2022.

Deferred Royalty Obligation related to the Sale of Future Royalties and Non-cash Interest Expense

In June 2023, the Company entered into a purchase and sale agreement (the "Purchase Agreement") with Blackstone, pursuant to which the Company sold to Blackstone its 4% royalty, or revenue interest, in the potential future net sales of Vaxcyte products, including VAX-24 (the "Purchased Interest") under that certain Amended and Restated SutroVax Agreement, dated October 12, 2015, by and between the Company and Vaxcyte, as amended (the "2015 License Agreement"). In June 2023, Blackstone made an upfront payment of $140.0 million to the Company and will also pay up to an additional $250.0 million upon the achievement of various return thresholds as set forth in the Purchase Agreement. The net proceeds from the upfront payment received by the Company from the sale of future royalties from Vaxcyte are recorded as deferred royalty obligation related to the sale of future royalties on the Company's condensed Balance Sheets. As royalties are earned and remitted pursuant to the 2015 License Agreement, the balance of the deferred royalty obligation will be amortized over the estimated life of the royalty term arrangement, and non-cash interest expense related to the sale of future royalties is recorded using the effective interest method. To determine the amortization of our deferred royalty obligation, the Company is required to estimate the total amount of future royalties to be earned under the 2015 License Agreement. There are a number of factors that could materially affect the amount and timing of royalty payments earned, most of which are not within the Company's control. The Company will periodically assess the amount of royalty payments expected to be earned which are subject to the Purchase Agreement and, to the extent that the amount or timing of such earned royalties is materially different than the Company's original estimates, the Company will prospectively adjust the imputed interest rate and the related amortization of the deferred royalty obligation.

Issuance fees and costs directly related to the Purchase Agreement were offset against the initial carrying value of the deferred royalty obligation and were amortized using the effective interest method over the estimated life of the royalty term arrangement.

Recent Accounting Pronouncements Not Yet Adopted

There were no new accounting pronouncements issued since the Company's filing of the Annual Report on Form 10-K for the year ended December 31, 2022, which could have a significant effect on the Company's condensed financial statements.

Cash, Cash Equivalents and Restricted Cash

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the Company's condensed Balance Sheets that sum to the total of the same amounts shown in the Company's condensed Statements of Cash Flows.

	June 30,	
	2023	**2022**
	(in thousands)	
Cash and cash equivalents	$ 235,095	$ 79,115
Restricted cash	872	872
Total cash, cash equivalents, and restricted cash shown in the condensed Statements of Cash Flows	$ 235,967	$ 79,987

Investments in Equity Securities

Vaxcyte common stock held by the Company is measured at fair value at each reporting period based on the closing price of Vaxcyte's common stock on the last trading day of each reporting period, with any realized or unrealized gains and losses recorded in the Company's condensed Statements of Operations.

Fair Value Measurements

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability, or an exit price, in the principal or most advantageous market for that asset or liability in an orderly transaction between market participants on the measurement date and establishes a fair value hierarchy that requires an entity to maximize the use of observable inputs, where available, and minimize the use of unobservable inputs when measuring fair value. The Company determined the fair value of financial assets and liabilities using the fair value hierarchy that describes three levels of inputs that may be used to measure fair value, as follows:

Level 1—Quoted prices in active markets for identical assets and liabilities;

Level 2—Inputs other than Level 1 that are observable, either directly or indirectly, 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; and

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.

The carrying amounts of accounts receivable, prepaid expenses, accounts payable, accrued liabilities and accrued compensation and benefits approximate fair value due to the short-term nature of these items.

The fair value of the Company's outstanding loan (See Note 6) is estimated using the net present value of the payments, discounted at an interest rate that is consistent with the market interest rate, which is a Level 2 input. The estimated fair value of the Company's outstanding loan approximates the carrying amount, as the loan bears a floating rate that approximates the market interest rate.

The carrying value of the deferred royalty obligation related to the sale of future royalties under the 2015 License Agreement with Vaxcyte approximates its fair value as of June 30, 2023, and is based on our current estimates of future royalties expected to be earned over the estimated life of the royalty term arrangement. See Note 9. Deferred Royalty Obligation Related to the Sale of Future Royalties for a description of the Level 3 inputs used to estimate the fair value of the liability.

Revenue Recognition

When the Company enters into collaboration agreements, it assesses whether the arrangements fall within the scope of ASC 808, Collaborative Arrangements ("ASC 808") based on whether the arrangements involve joint operating activities and whether both parties have active participation in the arrangement and are exposed to significant risks and rewards. To the extent that the arrangement falls within the scope of ASC 808, the Company assesses whether the payments between the Company and its collaboration partner fall within the scope of other accounting literature. If it concludes that payments from the collaboration partner to the Company represent consideration from a customer, such as license fees and contract research and development activities, the Company accounts for those payments within the scope of Accounting Standards Update (ASU) No. 2014-09 (Topic 606), Revenue from Contracts with Customers ("ASC 606").

Under ASC 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration that the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, the entity performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the Company satisfies a performance obligation. However, if the Company concludes that its collaboration partner is not a customer for certain activities and associated payments, such as for certain collaborative research, development, manufacturing and commercial activities, the Company presents such payments as a reduction of research and development expense or general and administrative expense, based on where the Company presents the underlying expense.

The Company has no products approved for commercial sale and has not generated any revenue from commercial product sales. The total revenue to date has been generated principally from collaboration and license agreements and to a lesser extent, from manufacturing, supply and services, and materials the Company provides to its collaboration partners.

Collaboration Revenue: The Company derives revenue from collaboration arrangements, under which the Company may grant licenses to its collaboration partners to further develop and commercialize its proprietary product candidates. The Company may also perform research and development activities under the collaboration agreements. Consideration under these contracts generally includes a nonrefundable upfront payment, development, regulatory and commercial milestones and other contingent payments, and royalties based on net sales of approved products. Additionally, the collaborations may provide options for the customer to acquire from the Company materials and reagents, clinical product supply or additional research and development services under separate agreements.

The Company assesses which activities in the collaboration agreements are considered distinct performance obligations that should be accounted for separately. The Company develops assumptions that require judgement to determine whether the license to the Company's intellectual property is distinct from the research and development services or participation in activities under the collaboration agreements.

At the inception of each agreement, the Company determines the arrangement transaction price, which includes variable consideration, based on the assessment of the probability of achievement of future milestones and contingent payments and other potential consideration. The Company recognizes revenue over time by measuring its progress towards the complete satisfaction of the relevant performance obligation using an appropriate input or output method based on the nature of the service promised to the customer.

For arrangements that include multiple performance obligations, the Company allocates the transaction price to the identified performance obligations based on the standalone selling price, or SSP, of each distinct performance obligation. In instances where SSP is not directly observable, the Company develops assumptions that require judgment to determine the SSP for each performance obligation identified in the contract. These key assumptions may include full-time equivalent, or FTE, personnel effort, estimated costs, discount rates and probabilities of clinical development and regulatory success.

Upfront Payments: For collaboration arrangements that include a nonrefundable upfront payment, if the license fee and research and development services cannot be accounted for as separate performance obligations, the transaction price is deferred and recognized as revenue over the expected period of performance using a cost-based input methodology. The Company uses judgement to assess the pattern of delivery of the performance obligation. In addition, amounts paid in advance of services being rendered may result in an associated financing component to the upfront payment. Accordingly, the interest on such borrowing cost component will be recorded as interest expense and revenue, based on an appropriate borrowing rate applied to the value of services to be performed by the Company over the estimated service performance period.

License Grants: For collaboration arrangements that include a grant of a license to the Company's intellectual property, the Company considers whether the license grant is distinct from the other performance obligations included in the arrangement. For licenses that are distinct, the Company recognizes revenues from nonrefundable, upfront payments and other consideration allocated to the license when the license term has begun and the Company has provided all necessary information regarding the underlying intellectual property to the customer, which generally occurs at or near the inception of the arrangement.

Milestone and Contingent Payments: At the inception of the arrangement and at each reporting date thereafter, the Company assesses whether it should include any milestone and contingent payments or other forms of variable consideration in the transaction price using the most likely amount method. If it is probable that a significant reversal of cumulative revenue would not occur upon resolution of the uncertainty, the associated milestone value is included in the transaction price. At the end of each subsequent reporting period, the Company re-evaluates the probability of achievement of each milestone and any related constraint and, if necessary, adjusts its estimate of the overall transaction price. Since milestone and contingent payments may become payable to the Company upon the initiation of a clinical study or filing for or receipt of regulatory approval, the Company reviews the relevant facts and circumstances to determine when the Company should update the transaction price, which may occur before the triggering event. When the Company updates the transaction price for milestone and contingent payments, the Company allocates the changes in the total transaction price to each performance obligation in the agreement on the same basis as the initial allocation. Any such adjustments are recorded on a cumulative catch-up basis in the period of adjustment, which may result in recognizing revenue for previously satisfied performance obligations in such period. The Company's collaborators generally pay milestones and contingent payments subsequent to achievement of the triggering event.

Research and Development Services: For amounts allocated to the Company's research and development obligations in a collaboration arrangement, the Company recognizes revenue over time using a cost-based input methodology, representing the transfer of goods or services as activities are performed over the term of the agreement.

Materials Supply: The Company provides materials and reagents, clinical materials and services to certain of its collaborators under separate agreements. The consideration for such services is generally based on FTE personnel effort

used to manufacture those materials, reimbursed at an agreed upon rate in addition to agreed-upon pricing for the provided materials. The amounts billed are recognized as revenue as the performance obligations are met by the Company.

Revenue subject to governmental withholding taxes is recognized on a gross basis with the withholding taxes recorded as a component of income tax expense.

3. Fair Value Measurements

The following table sets forth the fair value of the Company's financial assets measured on a recurring basis by level within the fair value hierarchy:

	June 30, 2023			
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Assets:				
Money market funds	$ 204,698	$ 204,698	$ -	$ -
Commercial paper	49,254	-	49,254	-
Corporate debt securities	2,984	-	2,984	-
Equity securities	33,349	33,349	-	-
Asset-backed securities	1,591	-	1,591	-
U.S. government securities	84,434	84,434	-	-
U.S. agency securities	14,845	-	14,845	-
Total	$ 391,155	$ 322,481	$ 68,674	$ -

	December 31, 2022			
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Assets:				
Money market funds	$ 36,486	$ 36,486	$ -	$ -
Commercial paper	87,140	-	87,140	-
Corporate debt securities	36,429	-	36,429	-
Equity securities	32,020	32,020	-	-
Asset-backed securities	14,016	-	14,016	-
U.S. government securities	91,251	91,251	-	-
U.S. agency securities	16,607	-	16,607	-
Supranational debt securities	16,481	-	16,481	-
Total	$ 330,430	$ 159,757	$ 170,673	$ -

Where applicable, the Company uses quoted market prices in active markets for identical assets to determine fair value. This pricing methodology applies to Level 1 investments, which are comprised of money market funds, U.S. government securities and the shares of Vaxcyte common stock held by the Company.

If quoted prices in active markets for identical assets are not available, then the Company uses quoted prices for similar assets or inputs other than quoted prices that are observable, either directly or indirectly. These investments are included in Level 2 and consist of commercial paper, corporate debt securities, asset-backed securities, U.S. agency securities and supranational debt securities. These assets are valued using market prices when available, adjusting for accretion of the purchase price to face value at maturity.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgments and consider factors specific to the asset or liability.

In certain cases where there is limited activity or less transparency around inputs to valuation, securities are classified as Level 3 within the valuation hierarchy. As of June 30, 2023, the deferred royalty obligation related to the sale of future Vaxcyte royalties was classified as Level 3 within the valuation hierarchy. As of December 31, 2022, the Company did not hold any securities that were classified as Level 3 within the valuation hierarchy.

Investments in Equity Securities

As of June 30, 2023 and December 31, 2022, the Company held 667,780 shares of Vaxcyte common stock with an estimated fair value of $33.3 million and $32.0 million, respectively. The Company recognized an unrealized gain of $8.3 million and an unrealized loss of ($3.7) million for the three months ended June 30, 2023 and 2022, respectively, and an unrealized gain of $1.3 million and an unrealized loss of ($3.2) million for the six months ended June 30, 2023 and 2022, respectively.

4. Cash Equivalents and Marketable Securities

Cash equivalents and marketable securities consisted of the following:

	June 30, 2023			
	Amortized Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
	(in thousands)			
Money market funds	$ 204,698	$ -	$ -	$ 204,698
Commercial paper	49,254	-	-	49,254
Corporate debt securities	2,984	-	-	2,984
Asset-based securities	1,591	-	-	1,591
U.S. government securities	84,425	14	(5)	84,434
U.S. agency securities	14,838	7	-	14,845
Total	357,790	21	(5)	357,806
Less amounts classified as cash equivalents	(234,605)	(3)	-	(234,608)
Total marketable securities	$ 123,185	$ 18	$ (5)	$ 123,198

	December 31, 2022			
	Amortized Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
	(in thousands)			
Money market funds	$ 36,486	$ -	$ -	$ 36,486
Commercial paper	87,140	-	-	87,140
Corporate debt securities	36,554	2	(127)	36,429
Asset-based securities	14,026	-	(10)	14,016
U.S. government securities	91,619	8	(376)	91,251
U.S. agency securities	16,646	-	(39)	16,607
Supranational debt securities	16,555	-	(74)	16,481
Total	299,026	10	(626)	298,410
Less amounts classified as cash equivalents	(43,318)	(2)	-	(43,320)
Total marketable securities	$ 255,708	$ 8	$ (626)	$ 255,090

There were $26.4 million and $139.5 million of investments in an unrealized loss position of $5 thousand and $0.6 million as of June 30, 2023 and December 31, 2022, respectively. During the three and six months ended June 30, 2023 and 2022, the Company did not record any other-than-temporary impairment charges on its available-for-sale securities. Based on the Company's procedures under the expected credit loss model, including an assessment of unrealized losses on the portfolio after June 30, 2023 and 2022, the Company concluded that the unrealized losses for its marketable securities were not attributable to credit and therefore an allowance for credit losses for these securities has not been recorded as of June 30, 2023 and 2022. Also, based on the scheduled maturities of the investments, the Company was more likely than not to hold these investments for a period of time sufficient for a recovery of the Company's cost basis.

The Company recognized no material gains or losses on its cash equivalents and current and non-current marketable securities as of June 30, 2023 and December 31, 2022 and as a result, the Company did not reclassify any amounts out of accumulated other comprehensive income (loss) for the period then ended.

5. Collaboration and License Agreements and Supply Agreements

The Company has entered into collaboration and license agreements and supply agreements with various pharmaceutical and biotechnology companies. See "Note 5. Collaboration and License Agreements and Supply Agreements" to the Company's financial statements included in the Annual Report on Form 10-K for the year ended December 31, 2022, or as further described below, for additional information on each of its collaboration agreements.

The Company's accounts receivable balances may contain billed and unbilled amounts from milestones and other contingent payments, as well as reimbursable costs from collaboration and license agreements and supply agreements. The Company performs a regular review of its customers' credit risk and payment histories, including payments made after the period end. Historically, the Company has not experienced credit loss from its accounts receivable and, therefore, has not recorded a reserve for estimated credit losses as of June 30, 2023 and December 31, 2022.

In accordance with the collaboration agreements, the Company recognized revenue as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
	(in thousands)		(in thousands)	
Bristol Myers Squibb Company ("BMS")	$ 2,236	$ 2,266	$ 5,402	$ 4,431
Merck Sharp & Dohme Corporation ("Merck")	140	146	2,693	1,210
Merck KGaA, Darmstadt, Germany (operating in the United States and Canada under the name "EMD Serono")	-	137	8	2,034
Astellas Pharma Inc. ("Astellas")	7,333	-	13,605	-
Vaxcyte	703	547	1,378	1,318
Tasly Biopharmaceuticals Co., Ltd. ("Tasly")	-	25,000	-	25,000
Total revenue	$ 10,412	$ 28,096	$ 23,086	$ 33,993

The following table presents the changes in the Company's deferred revenue balance from collaboration agreements during the six months ended June 30, 2023:

	Six Months Ended June 30, 2023 (in thousands)
Deferred revenue—December 31, 2022	$ 106,644
Additions to deferred revenue	1,018
Recognition of revenue in current period	(9,746)
Deferred revenue—June 30, 2023	$ 97,916

The Company's balance of deferred revenue contains upfront payments and an advance payment for an obligation from one of our supply agreements which remains partially unsatisfied. The Company expects to recognize approximately $18.0 million of the deferred revenue over the next twelve months.

Collaboration with BMS

BMS Agreement and 2018 BMS Master Services Agreement

In September 2014, the Company signed a Collaboration and License Agreement (the "BMS Agreement") with BMS to discover and develop bispecific antibodies and/or antibody-drug conjugates ("ADCs"), focused primarily on the field of immuno-oncology, using the Company's proprietary integrated cell-free protein synthesis platform, XpressCF®. In August 2017, the Company entered into an amended and restated collaboration and license agreement with BMS to refocus the collaboration on four programs that were advancing through preclinical development, including an ADC program targeting B cell maturation antigen ("BCMA ADC" or "CC-99712").

In May 2019, the U.S. Food and Drug Administration cleared the investigational new drug ("IND") application for the BCMA ADC, which was discovered and manufactured by the Company and is the first collaboration program IND.

In March 2018, the Company entered into a Master Development and Clinical Manufacturing Services Agreement (the "2018 BMS Master Services Agreement") with BMS, wherein BMS requested the Company to provide development, manufacturing and supply chain management services, including clinical product supply.

In June 2023, the Company received a notice of termination from BMS indicating that it was stopping development of CC-99712 due to a portfolio prioritization decision. The termination of the BMS Agreement is effective as of October 7, 2023 (the "Termination Date"). From and after the Termination Date, the Company will have sole worldwide rights to CC-99712.

As of June 30, 2023 and December 31, 2022, there was no deferred revenue related to payments received by the Company under the BMS Agreement.

As of June 30, 2023 and December 31, 2022, there was $0.2 million and $3.1 million, respectively, of deferred revenue under the 2018 BMS Master Services Agreement.

Revenues under the BMS Agreement and the 2018 BMS Master Services Agreement were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
	(in thousands)		(in thousands)	
Research and development services	$ 192	$ 240	$ 413	$ 484
Materials supply	2,044	2,026	4,989	3,947
Total revenue	$ 2,236	$ 2,266	$ 5,402	$ 4,431

Collaboration with Merck

2018 Merck Agreement

In July 2018, the Company entered into an agreement (the “2018 Merck Agreement”) with Merck for access to the Company’s technology and the identification and preclinical research and development of two target programs, with an option for Merck to engage the Company to continue these activities for a third program, upon the payment of an additional amount, focusing on cytokine derivatives for cancer and autoimmune disorders, with an initial transaction price of $60.0 million. The option to expand activities to a third program expired in January 2021.

In March 2020, Merck exercised its option to extend the research term of the collaboration’s first cytokine-derivative program by one year, which, pursuant to the terms of the 2018 Merck Agreement, triggered a payment of $5.0 million.

In April 2021, the Company earned a $15.0 million contingent payment for the initiation by Merck of the first IND-enabling toxicology study under the first cytokine-derivative program in the collaboration.

In September 2021, the Company entered into an amendment to the 2018 Merck Agreement (the “2021 Amendment”) to extend the research term for the first program in the 2018 Merck Agreement. Under the terms of the 2021 Amendment, the Company received a payment of $2.5 million with an additional $7.5 million to be received upon the achievement of certain developmental milestones by Merck on a second molecule under the first cytokine-derivative program of the collaboration. Merck decided not to pursue further development of a second molecule under the first cytokine-derivative program of the collaboration and, therefore, allowed the option to extend the period for nomination of additional clinical candidates under the 2021 Amendment to expire in June 2022.

In December 2021, Merck did not extend the research term for the second research program of the collaboration, which research program reverted to the Company. The first research program of the collaboration is focused on one distinct cytokine derivative molecule for the treatment of cancer. The Company is eligible to receive aggregate contingent payments of up to approximately $0.5 billion for the target program selected by Merck, assuming the development and sale of the therapeutic candidate and all possible indications identified under the collaboration. If one or more products from the target program is developed for non-oncology or a single indication, the Company will be eligible for reduced aggregate contingent payments. In addition, the Company is eligible to receive tiered royalties ranging from mid-single digit to low teen percentages on the worldwide sales of any commercial products that may result from the collaboration.

In July 2022, the first patient was dosed in a Phase 1 study of an investigational candidate resulting from the 2018 Merck Agreement for the development of a novel cytokine derivative therapeutic for the treatment of cancer. As a result of this achievement, the Company earned and received a $10.0 million contingent payment from Merck during the year ended December 31, 2022.

As of both June 30, 2023 and December 31, 2022, there was no deferred revenue related to the 2018 Merck Agreement and 2021 Amendment.

2020 Merck Master Services Agreement

In August 2020, the Company entered into a Pre-Clinical and Clinical Supply Agreement (the "2020 Merck Master Services Agreement") with Merck, wherein Merck requested the Company to provide development, manufacturing and supply chain management services, including clinical product supply, upon completion of the research programs under the 2018 Merck Agreement.

As of both June 30, 2023 and December 31, 2022, there was no deferred revenue under the 2020 Merck Master Services Agreement.

Revenues under the 2018 Merck Agreement and the 2020 Merck Master Services Agreement were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
	(in thousands)		(in thousands)	
Ongoing performance related to unsatisfied performance obligations	$ -	$ -	$ –	$ 862
Research and development services	79	93	204	266
Materials supply	61	53	2,489	82
Total revenue	$ 140	$ 146	$ 2,693	$ 1,210

Collaboration with EMD Serono

MDA Agreement and 2019 EMD Serono Supply Agreement

The Company signed a Collaboration Agreement and a License Agreement with EMD Serono in May 2014 and September 2014, respectively, which were entered into in contemplation of each other and, therefore, treated as a single agreement for accounting purposes. The Collaboration Agreement was subsumed into the License Agreement (the "MDA Agreement"), which agreement is to develop ADCs for multiple cancer targets.

In April 2019, the Company entered into an ADC Product Preclinical and Phase I Clinical Supply Agreement (the "2019 EMD Serono Supply Agreement") with EMD Serono, wherein EMD Serono requested the Company to provide development, manufacturing and supply chain management services, including clinical product supply.

In March 2023, EMD Serono disclosed its decision to close the Phase 1a trial of M1231 in patients with solid tumors and not initiate a previously planned expansion study. EMD Serono stated that the decision was based on strategic portfolio considerations.

As of both June 30, 2023 and December 31, 2022, there was no deferred revenue related to payments received by the Company under the MDA Agreement or the 2019 EMD Serono Supply Agreement.

Revenues under the EMD Serono agreements were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
	(in thousands)		(in thousands)	
Research and development services	$ -	$ 132	$ 6	$ 416
Materials supply	-	5	2	1,618
Total revenue	$ -	$ 137	$ 8	$ 2,034

Astellas License and Collaboration Agreement

In June 2022, the Company entered into a License and Collaboration Agreement (the "Astellas Agreement") with Astellas for the development of immunostimulatory antibody-drug conjugates for up to three biological targets, to be identified by Astellas. The Company will conduct research and pre-clinical development of any compound (as designated by Astellas) in each of the three programs in accordance with the terms of a research plan between the Company and Astellas. Astellas will have an exclusive worldwide license to develop and commercialize any such designated compound, subject to the Company's rights to participate in cost and profit sharing in the United States, as described below.

Pursuant to the Astellas Agreement, the Company received from Astellas a one-time, nonrefundable, non-creditable, upfront payment of $90.0 million during the year ended December 31, 2022. Under ASC 808 and ASC 606, the Company determined that both parties are active participants in the activities and are exposed to significant risks and rewards dependent on the success of the development program, and identified four performance obligations under the Astellas Agreement as: (1) performance of services related to the first target program; (2) performance of services related to the second target program; (3) performance of services related to the third target program; and (4) the Company's estimated future services on the collaboration JSC. The transaction price of $90.0 million was allocated among the performance obligations using the Company's best estimate of the standalone selling price, or SSP, for each of the associated performance obligations. Revenue allocated to the three target programs, which totaled $89.1 million, is being recognized on a proportion of performance basis, using FTE cost as the basis of measurement, with such performance expected to occur over an estimated service period of four years for each target program. As it pertains to the JSC performance obligation, the revenue allocated to such performance obligation was $0.9 million, and is being recognized on a proportion of performance basis using FTE cost as the basis of measurement, and such effort is expected to be incurred on a relatively consistent basis throughout the term of the Astellas Agreement.

Additionally, under ASC 606, the Company determined a financing component associated with the $90.0 million upfront payment and has calculated $32.3 million as of June 30, 2023, on the unearned revenue portion beyond one year from the effective date of the agreement, which amount is being recognized as interest expense and revenue over the estimated service period for the three target programs.

The Company is also eligible to receive up to $422.5 million in development, regulatory and commercial milestones for each product candidate, and tiered royalties ranging from low double-digit to mid-teen percentages on worldwide sales of any commercial products that may result from the collaboration, subject to customary deductions under certain circumstances. The Company can also elect to convert any product candidate into a cost and profit-sharing arrangement, for the United States only. In the event the Company makes such election, it will share commercialization costs and profits relating to such product candidate equally with Astellas in the United States, and no royalties will be due from Astellas for net sales of such product candidates in the United States.

Revenues under the Astellas Agreement were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
	(in thousands)		(in thousands)	
Ongoing performance related to unsatisfied performance obligations	$ 3,239	$ -	$ 5,811	$ -
Research and development services	1,562	-	2,719	-
Financing component on unearned revenue	2,532	-	5,075	-
Total revenue	$ 7,333	$ -	$ 13,605	$ -

As of June 30, 2023 and December 31, 2022, there was $80.2 million and $86.1 million of deferred revenue, respectively, related to the upfront payment received by the Company under the Astellas Agreement.

Agreements with Vaxcyte

Vaxcyte Supply Agreement

In May 2018, the Company entered into a Supply Agreement (the "Supply Agreement") with Vaxcyte, wherein Vaxcyte engaged the Company to provide research and development services and to supply extracts and custom reagents, as requested by Vaxcyte. The pricing is based on an agreed upon cost-plus arrangement.

During 2020, upon Vaxcyte's request and their agreement to reimburse the related costs, the Company entered into agreements with third-party contract manufacturing organizations, or CMOs, to conduct process transfers to allow for such CMOs to manufacture and supply extract and custom reagents for Vaxcyte. As part of the agreement with Vaxcyte, should the Company decide to purchase extract from the extract CMO, the Company would be required to reimburse Vaxcyte for a portion of all incurred process transfer costs. As of June 30, 2023 and December 31, 2022, there was $5.4 million and $4.8 million, respectively, in such accruals related to the Vaxcyte Supply Agreement.

For the three and six months ended June 30, 2023, the agreed-upon reimbursements by Vaxcyte of the costs associated with such arrangements, principally for pass-through costs from the CMOs, were $0.9 million and $2.8 million, respectively, and were accounted for by the Company as a reduction to research and development expense based on the Company's conclusion that Vaxcyte was not a customer for such activities and associated payments.

For the three and six months ended June 30, 2022, the agreed-upon reimbursements by Vaxcyte of the costs associated with such arrangements, principally for pass-through costs from the CMOs, were $3.8 million and $6.2 million, respectively.

Revenues under the Vaxcyte Supply Agreement were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
	(in thousands)		(in thousands)	
Research and development services	$ 567	$ 542	$ 1,071	$ 1,143
Materials supply	136	5	307	175
Total revenue	$ 703	$ 547	$ 1,378	$ 1,318

Vaxcyte Agreement

In December 2022, the Company entered into a letter agreement (the "Vaxcyte Agreement") with Vaxcyte under which the Company granted to Vaxcyte (i) authorization to enter into an agreement with an independent alternate CMO to source cell-free extract solely for the products it licensed from the Company, allowing Vaxcyte to have direct oversight over financial and operational aspects of the relationship with the CMO ("CMO Relationship Rights"), and (ii) a right, but not an obligation, to obtain certain exclusive rights to internally manufacture and/or source extract from certain CMOs and the right to independently develop and make improvements to extract for use in connection with the exploitation of certain vaccine compositions (the "Option"). The Option is exercisable for five years following the effective date of the Vaxcyte Agreement (the "Option Period"), subject to potential acceleration in the event of a change of control of Vaxcyte.

Pursuant to the Vaxcyte Agreement, the Company received a one-time, nonrefundable, non-creditable, upfront payment of $10.0 million in cash, and 167,780 shares of Vaxcyte common stock with a fair value of $7.5 million in December 2022. The Company will receive an additional nonrefundable, non-creditable payment of $5.0 million after the Company and Vaxcyte mutually agree in writing upon the Form Definitive Agreement that will become effective upon Vaxcyte's exercise of the Option. In the event Vaxcyte elects to exercise the Option, Vaxcyte will pay the Company $75.0 million in cash in two installments, and upon the occurrence of certain regulatory milestones, certain additional payments totaling up to $60.0 million. In the event that Vaxcyte undergoes a change of control, and subsequently exercises the Option, a substantial majority of the milestone payments will be accelerated.

The Company evaluated the terms of the Vaxcyte Agreement and concluded that the Vaxcyte Agreement is considered a new standalone contract and distinct from the previously existing agreements with Vaxcyte. Under ASC 606, the Company determined that Vaxcyte is a customer for this arrangement and identified the promised goods and services under the Vaxcyte Agreement as: (1) the Option; (2) the Form Definitive Agreement; (3) CMO Relationship Rights; and (4) Joint steering committee participation. The Company concluded that the promises within the contract are interrelated and interdependent of one another. As such, these are not considered distinct but are combined as a single performance obligation. This single performance obligation is considered a material right as it provides Vaxcyte with the right to acquire additional goods at a price it would not have received without having entered into the Vaxcyte Agreement. Other than the upfront cash and stock payments received, all other payment provisions in the Vaxcyte Agreement were considered constrained variable consideration or otherwise not eligible for revenue recognition at inception and as of June 30, 2023. Revenue for the single performance obligation was deferred and will be eligible to begin to be recognized at the earlier of when the Option is exercised or expires.

As of each of June 30, 2023 and December 31, 2022, there was $17.5 million of deferred revenue, related to the upfront cash and stock payments received by the Company under the Vaxcyte Agreement.

Refer to Note 9 below for information relating to the Purchase Agreement between the Company and Blackstone, pursuant to which the Company sold to Blackstone its 4% royalty, or revenue interest, in potential future net sales of Vaxcyte products, including VAX-24.

6. Loan and Security Agreement

The Company entered into a Loan and Security Agreement with Oxford Finance LLC ("Oxford") and Silicon Valley Bank ("SVB") in February 2020 (the "LSA"). See "Note 7. Loan and Security Agreement" to the Company's Financial Statements included in the Annual Report on Form 10-K for the year ended December 31, 2022, or as further described below, for additional information.

In June 2022, the Company entered into an amendment to the LSA with Oxford and SVB (the "LSA Amendment"). The LSA Amendment added a financial covenant that requires the Company to maintain a minimum unrestricted cash balance of $10.0 million. The Company was in compliance with the financial covenant under the LSA Amendment as of June 30, 2023.

The Loan and Security Agreement previously included a covenant requiring the Company to keep substantially all of its cash and investments with SVB, the substantial majority of which was held in a custodial account with another institution, for which SVB Asset Management was the advisor. In March and April 2023, the Loan and Security Agreement was amended to allow the Company to hold cash and investments at multiple financial institutions.

In June 2023, the Company entered into an amendment to the LSA with Oxford and SVB (the "5th LSA Amendment"). Under the 5th LSA Amendment, effective July 1, 2023, the loan will bear interest at the floating per annum rate of interest equal to the greater of (i) 8.07% and (ii) the sum of (a) a specific published 1-month secured overnight financing rate (SOFR) reported on the last business day of the month that immediately precedes the month in which the interest will accrue, plus (b) 0.10%, plus (c) 6.40%. There was an immaterial impact of the 5th LSA Amendment on the financial statements of the Company.

As of June 30, 2023 and December 31, 2022, the Company has classified $10.2 million and $12.5 million, respectively, of the outstanding debt balance as a current liability, and zero and $3.8 million, respectively, as a non-current liability, which reflects the scheduled repayment terms under the February 2020 LSA.

As of both June 30, 2023 and December 31, 2022, accrued interest expense was $0.1 million.

During the three and six months ended June 30, 2023, the Company recorded interest expense related to loans outstanding of $0.4 million and $0.8 million, respectively, with average interest rates of 11.44% and 11.19%, respectively, which includes interest related to the accretion of debt discount of $0.1 million and $0.2 million, respectively.

During the three and six months ended June 30, 2022, the Company recorded interest expense related to loans outstanding of $0.6 million and $1.3 million, respectively, with average interest rates of 8.07% for both periods, which includes interest related to the accretion of debt discount of $0.1 million and $0.3 million, respectively.

7. Commitments and Contingencies

Leases

The Company leases certain office, laboratory and manufacturing facilities in South San Francisco, California and San Carlos, California. These leases require monthly lease payments that may be subject to annual increases throughout the lease term. Certain of these leases also include renewal options at the election of the Company to renew or extend the lease for an additional 5 years. These renewal options have not been considered in the determination of the right-of-use assets and lease liabilities associated with these leases as the Company has determined it is not reasonably certain it will exercise such options.

The Company recognizes rent expense for these operating leases on a straight-line basis over the lease period. The components of lease costs, which the Company includes in operating expenses in the Company's condensed Statements of Operations, were as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Operating lease cost	$ 1,538	$ 1,538	$ 3,076	$ 3,076
Short-term lease cost	19	20	43	41
Variable lease cost	441	430	851	854
Total lease costs	$ 1,998	$ 1,988	$ 3,970	$ 3,971

During the three and six months ended June 30, 2023, the Company recorded operating lease expense of $1.5 million and $3.1 million, respectively. As of June 30, 2023, the Company paid $3.5 million of operating lease payments related to the lease liabilities, which the Company includes in net cash used in operating activities in the Company's condensed Statements of Cash Flows.

During the three and six months ended June 30, 2022, the Company recorded operating lease expense of $1.5 million and $3.1 million, respectively. As of June 30, 2022, the Company paid $0.8 million of operating lease payments related to the lease liabilities, which the Company includes in net cash used in operating activities in the Company's condensed Statements of Cash Flows.

As of June 30, 2023 and December 31, 2022, the weighted-average remaining lease term was 4.3 years and 4.8 years, respectively, and the weighted-average discount rate used to determine the operating lease liability was 10.8% for both periods.

As of June 30, 2023, the maturities of the Company’s operating lease liabilities were as follows (in thousands):

Year Ending December 31,	**Amount (in thousands)**
Remaining in 2023	$ 4,530
2024	9,219
2025	9,533
2026	8,994
2027	8,289
Total lease payments	40,565
Less: imputed interest	(8,105)
Operating lease liabilities	32,460
Less: current portion	(5,934)
Total lease liabilities, non-current	$ 26,526

Indemnification & Other

In the ordinary course of business, the Company may provide indemnifications of varying scope and terms to vendors, lessors, business partners, board members, officers, and other parties with respect to certain matters, including, but not limited to, losses arising out of breach of such agreements, services to be provided by the Company, negligence or willful misconduct of the Company, violations of law by the Company, or from intellectual property infringement claims made by third parties. In addition, the Company has entered into indemnification agreements with directors and certain officers and employees that will require the Company, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors, officers or employees. No demands have been made upon the Company to provide indemnification under such agreements, and thus, there are no claims that the Company is aware of that could have a material effect on the Company’s condensed Balance Sheets, condensed Statements of Operations, or condensed Statements of Cash Flows. The Company currently has directors’ and officers’ liability insurance.

In addition, the Company enters into agreements in the normal course of business, including with contract research organizations for clinical trials, contract manufacturing organizations for certain manufacturing services, and vendors for preclinical studies and other services and products for operating purposes, which are generally cancelable upon written notice.

8. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consist of the following:

	June 30, 2023	**December 31, 2022**
	(in thousands)	
Vaxcyte-related accrual under Vaxcyte Supply Agreement	$ 5,449	$ 4,830
CMO-related accrual	3,484	3,900
Clinical trials-related accrual	3,335	2,954
Other	7,325	3,080
Total accrued expenses and other current liabilities	$ 19,593	$ 14,764

9. Deferred Royalty Obligation related to the Sale of Future Royalties

In June 2023, the Company entered into the Purchase Agreement with Blackstone, pursuant to which the Company sold to Blackstone its 4% royalty, or revenue interest, in the potential future net sales of Vaxcyte products, including the Purchased Interest under the 2015 License Agreement. The Company retains the right to discover and develop vaccines for the treatment or prophylaxis of any disease that is not caused by an infectious pathogen, including cancer.

In June 2023, Blackstone made an upfront payment of $140.0 million to the Company and will also pay up to an additional $250.0 million upon the achievement of various return thresholds as set forth in the Purchase Agreement.

Under the Purchase Agreement, and in connection with its sale of the Purchased Interest, the Company has agreed to certain covenants with respect to the exercise of its rights under the 2015 License Agreement, including with respect to the Company's right to amend, assign and terminate the 2015 License Agreement. The Purchase Agreement contains other customary terms and conditions, including representations and warranties, covenants and indemnification obligations in favor of each party.

The Company recorded the $140.0 million upfront payment from Blackstone as a deferred royalty obligation related to the sale of future royalties on the Company's condensed Balance Sheets. Due to the Company's ongoing manufacturing obligations under the 2015 License Agreement, the Company accounted for the proceeds as imputed debt and, therefore, will recognize future non-cash royalty revenues. Non-cash interest expense will be recognized over the estimated life of the royalty term arrangement using the effective interest method based on the imputed interest rate derived from estimated amounts and timing of future royalty payments to be received from Vaxcyte. As part of the sale, the Company incurred approximately $3.8 million in transaction costs, which are being amortized over the estimated life of the royalty term arrangement using the effective interest method. As future royalties are earned from Vaxcyte by Blackstone, the balance of the deferred royalty obligation will be amortized over the estimated life of the royalty term arrangement.

There are a number of factors that could materially affect the fair value of the deferred royalty obligation. Such factors include, but are not limited to, the amount and timing of potential future royalty payments to be earned and received by Blackstone from Vaxcyte under the 2015 License Agreement, changing standards of care, the introduction of competing products, manufacturing or other delays, intellectual property matters, adverse events that result in governmental health authority imposed restrictions on the use of the vaccine products, and other events or circumstances that could result in reduced royalty payments from Vaxcyte to Blackstone, which are not within our control, and all of which would result in a reduction of non-cash royalty revenues and the non-cash interest expense over the estimated life of the royalty term arrangement. The Company will periodically assess the estimated royalty payments to be earned by Blackstone from Vaxcyte and, to the extent that the amount or timing of such payments is materially different than our original estimates, the Company will prospectively adjust the imputed interest rate and the related amortization of the deferred royalty obligation. As of June 30, 2023, our effective interest rate used to amortize the liability is 16.3%.

During the three months ended June 30, 2023, the Company recognized approximately $0.4 million of non-cash interest expense on the deferred royalty obligation, which amount will increase such balance. As of June 30, 2023, Blackstone has not received any royalty payment from Vaxcyte and, therefore, the deferred royalty obligation has not begun to be amortized.

The following table shows the activity of the deferred royalty obligation since transaction inception through June 30, 2023:

		June 30, 2023 (in thousands)
Proceeds from the sale of future Vaxcyte royalties	$	140,000
Issuance costs		(3,792)
Non-cash interest expense associated with the sale of future Vaxcyte royalties		442
Amortization of issuance costs		3
Deferred royalty obligation related to the sale of future Vaxcyte royalties, net	$	136,653

10. Stockholders' Equity

Common Stock

Holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders of the Company.

The Company has reserved common stock, on an if-converted basis, for issuance as follows:

	June 30, 2023	December 31, 2022
Common stock options issued and outstanding	8,351,659	7,310,611
Common stock awards issued and outstanding	5,212,174	3,958,478
Remaining shares reserved for issuance under 2018 Equity Incentive Plan and 2021 Equity Inducement Plan	1,737,524	1,541,706
Shares reserved for issuance under 2018 Employee Stock Purchase Plan	1,201,930	865,995
Warrants to purchase common stock	127,616	127,616
Total	16,630,903	13,804,406

Preferred Stock

As of June 30, 2023 and December 31, 2022, the Company had 10,000,000 shares of preferred stock authorized with a par value of $0.001 per share. No shares of preferred stock were outstanding as of June 30, 2023 and December 31, 2022.

11. Equity Incentive Plans, Equity Inducement Plans, Employee Stock Purchase Plan and Stock-Based Compensation

2004 Equity Incentive Plan, 2018 Equity Incentive Plan, 2021 Equity Inducement Plan, and Amended and Restated 2021 Equity Inducement Plan

In September 2018, the Company adopted the 2018 Equity Incentive Plan ("2018 Plan"), which became effective on September 25, 2018. As a result, the Company will not grant any additional awards under the 2004 Equity Incentive Plan ("2004 Plan"). The terms of the 2004 Plan and applicable award agreements will continue to govern any outstanding awards thereunder. In addition to the shares of common stock reserved for future issuance under the 2004 Plan that were added to the 2018 Plan upon its effective date, the Company initially reserved 2,300,000 shares of common stock for issuance under the 2018 Plan. In addition, the number of shares of common stock reserved for issuance under the 2018 Plan will automatically increase on the first day of January for a period of up to ten years, commencing on January 1, 2019, in an amount equal to 5% of the total number of shares of the Company's capital stock outstanding on the last day of the preceding year (rounded to the nearest whole share), or a lesser number of shares determined by the Company's board of directors. As a result, common stock reserved for issuance under the 2018 Plan was increased by 2,874,977 shares on January 1, 2023.

In August 2021, the Company adopted the 2021 Equity Inducement Plan ("2021 Plan"), which became effective on August 4, 2021. Upon its effective date, the Company initially reserved 750,000 shares of common stock for issuance pursuant to non-qualified stock options and restricted stock units ("RSUs") under the 2021 Plan. In accordance with Rule 5635(c)(4) of the Nasdaq listing rules, equity awards under the 2021 Plan may only be made to an employee if he or she is granted such equity awards in connection with his or her commencement of employment with the Company and such grant is an inducement material to his or her entering into employment with the Company or such subsidiary. In addition, awards under the 2021 Plan may only be made to employees who have not previously been an employee or member of the Board (or any parent or subsidiary of the Company) or following a bona fide period of non-employment of the employee by the Company (or a parent or subsidiary of the Company). At all times, the Company will reserve and keep available a sufficient number of shares as will be required to satisfy the requirements of all outstanding awards granted under the 2021 Plan.

In August 2022, the Company amended and restated the 2021 Plan (the "Amended and Restated 2021 Plan") and reserved an additional 750,000 shares of common stock available for issuance under the Amended and Restated 2021 Plan to be granted by the Company to certain employees as a material inducement to their acceptance of employment with the Company in accordance with Nasdaq Listing Rule 5635(c)(4).

Additionally, in February 2023, the Company amended and restated the 2021 Plan and reserved an additional 500,000 shares of common stock available for issuance under the Amended and Restated 2021 Plan to be granted by the Company to certain employees as a material inducement to their acceptance of employment with the Company in accordance with Nasdaq Listing Rule 5635(c)(4). The total number of shares reserved for issuance pursuant to the Amended and Restated 2021 Plan is 2,000,000 shares.

As of June 30, 2023, the Company had a total of 1,737,524 shares available for grant under the 2018 Plan and the 2021 Plan.

The following table summarizes option activity under the Company's 2004 Plan, 2018 Plan and 2021 Plan:

	Shares		Weighted-Average Exercise Price
Stock options outstanding at December 31, 2022	7,310,611	$	12.68
Granted	1,368,000		5.66
Exercised	(53,060)		5.92
Canceled and forfeited	(273,892)		11.24
Stock options outstanding at June 30, 2023	8,351,659		11.62
Stock options exercisable at June 30, 2023	5,735,042	$	12.83

Restricted Stock Units

During the six months ended June 30, 2023, the Company granted 2,305,225 shares of restricted common stock units ("RSUs") to certain employees. These RSUs vest annually, and generally, will become fully vested over four years.

A summary of the status and activity of non-vested RSUs during the six months ended June 30, 2023 is as follows:

	Number of shares		Weighted Average Grant-Date Fair Value
Non-vested December 31, 2022	3,958,478	$	11.70
Granted	2,305,225		5.80
Vested and released	(896,269)		12.52
Canceled and forfeited	(155,260)		10.72
Non-vested June 30, 2023	5,212,174	$	8.98

2018 Employee Stock Purchase Plan

In September 2018, the Company adopted the 2018 Employee Stock Purchase Plan ("ESPP"), which became effective on September 26, 2018, in order to enable eligible employees to purchase shares of the Company's common stock. The Company initially reserved 230,000 shares of common stock for sale under the ESPP. The aggregate number of shares reserved for sale under the ESPP will automatically increase on the first day of January for a period of up to ten years, commencing on January 1, 2019, in an amount equal to 1% of the total number of shares of the Company's capital stock outstanding on the last day of the preceding year (rounded to the nearest whole share), or a lesser number of shares determined by the Company's board of directors. As a result, common stock reserved for issuance under the ESPP was increased by 574,995 shares on January 1, 2023. The aggregate number of shares issued over the term of the Company's ESPP, subject to stock-splits, recapitalizations or similar events, may not exceed 2,300,000 shares of the Company's common stock.

As of June 30, 2023, 983,316 shares had been purchased and 1,201,930 shares were available for future issuance under the ESPP.

Stock-Based Compensation Expense

The Company believes that the fair value of the stock options, RSUs and ESPP shares is more reliably measurable than the fair value of services received.

Total stock-based compensation expense recognized was as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
	(in thousands)		(in thousands)	
Research and development expense:	$ 3,127	$ 2,271	$ 5,948	$ 4,884
General and administrative expense:	3,534	4,425	6,734	8,786
Total	$ 6,661	$ 6,696	$ 12,682	$ 13,670

As of June 30, 2023, unrecognized stock-based compensation expense related to the unvested stock options and RSUs granted was $15.3 million and $38.1 million, respectively. The remaining unrecognized compensation cost related to the unvested stock options and RSUs is expected to be recognized over a weighted-average period of 2.2 years and 2.6 years, respectively. As of June 30, 2023, there was $0.2 million of unrecognized stock-based compensation expense related to the ESPP.

As of June 30, 2022, unrecognized stock-based compensation expense related to the unvested stock options and RSUs granted was $22.1 million and $42.1 million, respectively. The remaining unrecognized compensation cost related to the unvested stock options and RSUs is expected to be recognized over a weighted-average period of 2.5 years and 3.0 years, respectively. As of June 30, 2022, there is $0.2 million of unrecognized stock-based compensation expense related to the ESPP.

12. Provision for Income Taxes

For the three and six months ended June 30, 2023, the Company recognized an income tax expense of $0.2 million and $0.5 million, respectively, resulting in an effective tax rate of (0.3)%.

The Company recorded a foreign income tax charge of $2.5 million during the three and six months ended June 30, 2022, due to a withholding tax in China on its license revenue from Tasly. The Company has established a full valuation allowance against its net deferred tax assets due to the uncertainty surrounding the realization of such assets. All losses to date have been incurred domestically.

The income tax charge for the three and six months ended June 30, 2023, was primarily due to unfavorable book-tax differences related to capitalizing and amortizing research and development expenditures under Internal Revenue Code, or IRC, Section 174, the upfront payment from the sale of future royalties, and IRC Section 382 limitations imposed on the utilization of the Company's historical tax attributes as a result of cumulative ownership changes that the Company more likely than not experienced in prior years. The effective tax rates for the three and six months ended June 30, 2023 vary from the U.S. federal statutory tax rate of 21% primarily due to the Company’s inability to recognize the benefit from its net deferred tax assets, which are offset by a valuation allowance.

13. Net Loss Per Share

The following table sets forth the computation of the Company’s basic and diluted net loss per share.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
	(in thousands, except share and per share amounts)			
Numerator:				
Net loss	$ (38,524)	$ (26,012)	$ (88,574)	$ (65,122)
Denominator:				
Shares used in computing net loss per share	60,339,475	46,957,196	59,535,918	46,729,663
Net loss per share, basic and diluted	$ (0.64)	$ (0.55)	$ (1.49)	$ (1.39)

The following common stock equivalents were excluded from the computation of diluted net loss per share for the period ended June 30, 2023 and 2022, because including them would have been antidilutive:

	As of June 30,	
	2023	**2022**
Common stock options issued and outstanding	8,351,659	7,507,431
Restricted stock units issued and outstanding	5,212,174	3,737,945
Warrants to purchase common stock	127,616	127,616
Shares to be issued under employee stock purchase plan	203,206	158,299
Total	13,894,655	11,531,291

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

You should read the following discussion of our financial condition and results of operations in conjunction with our condensed financial statements and the related notes and other financial information included elsewhere in this Quarterly Report on Form 10-Q and our Annual Report on Form 10-K for the year ended December 31, 2022. In addition to historical financial information, this discussion contains forward-looking statements based upon current expectations that involve risks and uncertainties, such as statements of our plans, objectives, expectations, intentions and belief. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth in the section titled "Risk Factors" under Part II, Item 1A below. All statements contained in this Quarterly Report on Form 10-Q other than statements of historical fact, including statements related to our expectations regarding our future results of operations and financial position, business strategy, market size for our product candidates, potential future milestone and royalty payments, the value of the our holdings of Vaxcyte common stock, potential growth opportunities, nonclinical and clinical development activities, efficacy and safety profile of our product candidates, our ability to maintain and recognize the benefits of certain designations received by product candidates, our ability to successfully leverage Fast Track Designation, the timing and results of nonclinical studies and clinical trials, collaboration with third parties, the expected impact of pandemics or contagious diseases, such as the COVID-19 pandemic, on our operations, and the receipt and timing of potential regulatory designations, approvals and commercialization of product candidates, are forward-looking statements. The words "believe," "may," "will," "potentially," "estimate," "continue," "anticipate," "predict," "target," "intend," "could," "would," "should," "project," "plan," "expect," and similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

These statements are based upon information available to us as of the date of this Quarterly Report on Form 10-Q and, while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete; and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

Overview

We are a clinical-stage oncology company developing site-specific and novel-format antibody drug conjugates, or ADCs, enabled by our proprietary integrated cell-free protein synthesis platform, XpressCF®, and our site specific conjugation platform, XpressCF+®. We aim to design and develop therapeutics using the most relevant and potent modalities, including ADCs, bispecific ADCs, immunostimulatory ADCs, or iADCs, dual conjugate ADCs, or ADC^{2}s, and cytokine derivatives. Our molecules are directed primarily against clinically validated targets where the current standard of care is suboptimal. We believe that our platform allows us to accelerate the discovery and development of potential first-in-class and/or best-in-class molecules by enabling the rapid and systematic evaluation of protein structure-activity relationships to create optimized homogeneous product candidates. Our mission is to transform the lives of patients by creating medicines with improved therapeutic profiles for areas of unmet need.

Once identified, production of protein drug candidates can be rapidly and predictably scaled in our current Good Manufacturing Practices, or cGMP, compliant manufacturing facility. We have the ability to manufacture our proprietary cell-free extract that supports our production of proteins on a large scale using a semi-continuous fermentation process. Our most advanced product candidate is STRO-002, or luveltamab tazevibulin, or luvelta, an ADC directed against folate receptor-alpha, or FolRα, for patients with FolRα-expressing cancers, including ovarian cancer.

Luvelta was designed and optimized for an improved therapeutic index by placing a precise number of linker-warheads at four specific locations within the antibody using our proprietary XpressCF+® platform. Our first Phase 1 trial for luvelta is an open-label study evaluating luvelta as a monotherapy for patients with ovarian and endometrial cancers. This trial is being conducted in two-parts, dose escalation and dose expansion. The primary objectives of the clinical trial are to determine the safety and tolerability profile, to define the recommended Phase 2 dose level and interval and to evaluate preliminary anti-tumor activity. Our secondary objectives are to characterize the human pharmacokinetics and additional safety, tolerability and efficacy measures.

In 2019, we began enrolling patients in a Phase 1 trial of luvelta that focused on ovarian and endometrial cancers. The dose escalation portion of the luvelta Phase 1 trial has been completed and the dose expansion portion of the trial to assess the efficacy, safety and tolerability of luvelta is ongoing. In January 2023, we reported preliminary final results from the dose-expansion cohort and updated results in June 2023. The data from the dose-escalation and dose expansion cohorts suggested that luvelta exhibited a manageable safety profile together with promising preliminary efficacy data in the tested patient population. We also initiated an exploratory cohort C to assess the safety of treatment with luvelta at 5.2 mg/kg in combination with prophylactic pegfilgrastim and presented preliminary data from ten patients from this cohort in January 2023. Early results from these initial 10 patients in cohort C, when compared to patients who were not given prophylactic pegfilgrastim in the dose-expansion cohort at a starting dose of 5.2 mg/kg (n=21) demonstrated substantial

reductions in Grade 3+ neutropenia and instances of dose delays. We plan to announce updated data from cohort C in the second half of 2023. In August 2021, luvelta was granted Fast Track Designation by the U.S. Food and Drug Administration, or FDA, for the treatment of patients with platinum-resistant epithelial ovarian, fallopian tube, or primary peritoneal cancer who have received one to three prior lines of systemic therapy. In mid-2022, we discussed with the FDA appropriate trial designs for a registration-directed trial of luvelta to potentially support accelerated approval. In June 2023, we announced that sites are open for enrollment in our registration-directed Phase 2/3 trial of luvelta, referred to as REFRaME, for patients with platinum-resistant ovarian cancer. The first patient was enrolled in the REFRaME study in July 2023. We expect to present data from the Phase 1 dose expansion for luveltamab tazevibulin for patients with endometrial cancers as a Mini Oral Session at the European Society for Medical Oncology (ESMO) Congress in October 2023.

In addition, we have been offering compassionate use of luvelta to treat pediatric patients with relapsed/refractory CBF/GLIS AML, commonly known as RAM phenotype AML. Compassionate use data showed anti-leukemic activity of luvelta in pediatric patients with relapsed/refractory CBF/GLIS AML and was presented at the 64th American Society of Hematology Annual Meeting and Exposition (ASH 2022). The data showed that luvelta was well tolerated as a monotherapy agent and in combination with standard cancer therapies. Luvelta was granted Orphan Drug Designation by the FDA in December 2022 in this pediatric patient population.

Our next most advanced product candidate is STRO-001, an optimally designed ADC directed against the cancer target CD74, for multiple myeloma and NHL. STRO-001 was designed and optimized for maximal therapeutic index by placing linker-warheads at specific locations within the antibody using our proprietary XpressCF+® platform. The Phase 1 trial for STRO-001 is an open-label study evaluating STRO-001 as a monotherapy for patients with multiple myeloma and NHL. The trial is being conducted in two parts: dose escalation and dose expansion. The primary objectives of the trial are to determine the safety and tolerability profile of STRO-001, to determine the recommended Phase 2 dose level and interval and to evaluate preliminary anti-tumor activity. Our secondary objectives are to characterize the human pharmacokinetics of STRO-001 and additional safety, tolerability and efficacy measures.

We have completed enrollment for STRO-001 dose escalation in a Phase 1 trial for multiple myeloma and NHL. STRO-001 has been generally well-tolerated and no ocular toxicity signals have been observed, with no patients receiving prophylactic corticosteroid eye drops. We have completed dose escalation in the STRO-001 Phase 1 trial following identification of the maximum tolerated dose. In October 2021, we granted BioNova, an option to exclusively license the right to develop and commercialize STRO-001 in Greater China, or the BioNova Option Agreement. In February 2023, BioNova announced that the first patient had been dosed in the Phase 1 clinical trial of STRO-001. We plan to leverage the clinical data produced by BioNova in Greater China to make future prioritization decisions regarding further clinical development.

We also have a preclinical product candidate - STRO-003, which is a single homogeneous ADC directed against an anti-Receptor tyrosine kinase-like orphan receptor 1, or ROR1, which we intend to develop for the treatment of solid tumors. We presented expanded preclinical data for STRO-003 at the American Association for Cancer Research (AACR) Annual Meeting in April 2023, which demonstrated potent anti-tumor activity and immune-modulating properties, suggesting that STRO-003 may have the potential to augment checkpoint blockade therapy. Preparations are underway for IND enabling studies for STRO-003, which we expect will be completed in the first quarter of 2024. We expect to begin Phase 1 safety studies of STRO-003 in 2024.

Enabled through our proprietary XpressCF® and XpressCF+®platforms, we have entered into multi-target, product-focused collaborations with leading pharmaceutical and biotechnology companies in the field of oncology, including an immunostimulatory antibody-drug conjugates collaboration with Astellas, a cytokine derivatives collaboration with Merck; BioNova; and Tasly. Our XpressCF® and XpressCF+® platforms have also supported Vaxcyte, focused on discovery and development of vaccines for the treatment and prophylaxis of infectious disease. In the first quarter of 2022, Vaxcyte announced that it had initiated a Phase 1/2 clinical proof-of-concept study of its lead product candidate, VAX-24, its 24-valent pneumococcal conjugate vaccine candidate, under investigation for the prevention of invasive pneumococcal disease in adults. In April 2023, Vaxcyte announced positive clinical data from this trial. Also in 2022, we entered into an agreement with Vaxcyte, granting it an option to access expanded rights to develop and manufacture cell-free extract for use in development and manufacture of its vaccine products, among certain other rights. Further, in June 2023, we entered into a purchase and sale agreement (the “Purchase Agreement”) with Blackstone, in which Blackstone acquired the right to receive our 4% revenue interest in Vaxcyte’s future products, including VAX-24 and other products developed by Vaxcyte under its license with us.

Since the commencement of our operations, we have devoted substantially all of our resources to performing research and development and manufacturing activities in support of our own product development efforts and those of our collaborators, raising capital to support and expand such activities and providing general and administrative support for these operations. We have funded our operations to date primarily from upfront, milestone and other payments under our collaboration agreements with BMS, Merck, Astellas, EMD Serono, Vaxcyte, BioNova, and Tasly, the issuance and

sale of redeemable convertible preferred stock, our initial public offering, or IPO, follow-on public offerings of common stock, sales of our common stock through our ATM Facility, debt financing, and the royalty monetization agreement with Blackstone.

We do not have any products approved for commercial sale and have not generated any revenue from commercial product sales. We had a loss from operations of $88.4 million and a net loss of $88.6 million for the six months ended June 30, 2023, which net loss included the non-operating, unrealized gain of $1.3 million related to our holdings of Vaxcyte common stock. We had a loss from operations of $58.5 million and net loss of $65.1 million, which net loss included the non-operating, unrealized loss of $3.2 million related to our holdings of Vaxcyte common stock, for the six months ended June 30, 2022. Substantially all of our losses have resulted from expenses incurred in connection with our research and development programs and from general and administrative costs associated with our operations. We cannot assure you that we will have net income or that we will generate positive cash flow from operating activities in the future. As of June 30, 2023, we had an accumulated deficit of $541.2 million. We do not expect to generate any revenue from commercial product sales unless and until we successfully complete development and obtain regulatory approval for one or more of our product candidates, which we expect will take a number of years. If we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, access, marketing, manufacturing and distribution. We expect our operating expenses to significantly increase as we continue to develop, and seek regulatory approvals for, our product candidates, engage in other research and development activities, expand our pipeline of product candidates, continue to develop our manufacturing facility and capabilities, maintain and expand our intellectual property portfolio, seek regulatory and marketing approval for any product candidates that we may develop, acquire or in-license other assets or technologies, ultimately establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval, and operate as a public company. Our net losses may fluctuate significantly from quarter-to-quarter and year-to-year, depending on the timing of our clinical trials, our expenditures on other research and development activities and the timing of achievement and receipt of upfront, milestones and other collaboration agreement payments.

Financial Operations Overview

Revenue

We do not have any products approved for commercial sale and have not generated any revenue from commercial product sales. Our total revenue to date has been generated principally from our collaboration and license agreements with BMS, Merck, Astellas, EMD Serono, Vaxcyte, BioNova and Tasly, and to a lesser extent, from manufacturing, supply and services and materials we provide to the above collaborators.

We derive revenue from collaboration arrangements, under which we may grant licenses to our collaboration partners to further develop and commercialize our proprietary product candidates. We may also perform research and development activities under the collaboration agreements. Consideration under these contracts generally includes a nonrefundable upfront payment, development, regulatory and commercial milestones and other contingent payments, and royalties based on net sales of approved products. Additionally, the collaborations may provide options for the customer to acquire from us materials and reagents, clinical product supply or additional research and development services under separate agreements. We assess which activities in the collaboration agreements are considered distinct performance obligations that should be accounted for separately. We develop assumptions that require judgement to determine whether the license to our intellectual property is distinct from the research and development services or participation in activities under the collaboration agreements.

At the inception of each agreement, we determine the arrangement transaction price, which includes variable consideration, based on the assessment of the probability of achievement of future milestones and contingent payments and other potential consideration. We recognize revenue over time by measuring our progress towards the complete satisfaction of the relevant performance obligation using an appropriate input or output method based on the nature of the service promised to the customer.

For arrangements that include multiple performance obligations, we allocate the transaction price to the identified performance obligations based on the standalone selling price, or SSP, of each distinct performance obligation. In instances where SSP is not directly observable, we develop assumptions that require judgment to determine the SSP for each performance obligation identified in the contract. These key assumptions may include full-time equivalent, or FTE, personnel effort, estimated costs, discount rates and probabilities of clinical development and regulatory success.

Operating Expenses

Research and Development

Research and development expenses represent costs incurred in performing research, development and manufacturing activities in support of our own product development efforts and those of our collaborators, and include salaries, employee benefits, stock-based compensation, laboratory supplies, outsourced research and development expenses, professional services and allocated facilities-related costs. We expense both internal and external research and development costs as they are incurred. Nonrefundable advance payments for services that will be used or rendered for future research and development activities are recorded as prepaid expenses and recognized as expenses as the related services are performed.

We expect our research and development expenses to increase in the future as we advance our product candidates into and through preclinical studies and clinical trials, pursue regulatory approval of our product candidates, expand our pipeline of product candidates and continue to develop our manufacturing facility and capabilities. The process of conducting the necessary preclinical and clinical research to obtain regulatory approval is costly and time consuming. The actual probability of success for our product candidates may be affected by a variety of factors including: the safety and efficacy of our product candidates, early clinical data, investment in our clinical programs, the ability of collaborators to successfully develop our licensed product candidates, competition, manufacturing capability and commercial viability. We may never succeed in achieving regulatory approval for any of our product candidates. As a result of the uncertainties discussed above, we are unable to determine the duration and completion costs of our research and development projects or when and to what extent we will generate revenue from the commercialization and sale of our product candidates.

The following table summarizes our research and development expenses incurred during the indicated periods. The internal costs include personnel, facility costs and research and scientific related activities associated with our pipeline. The external program costs reflect external costs attributable to our clinical development candidates and preclinical candidates selected for further development. Such expenses include third-party costs for preclinical and clinical studies and research, development and manufacturing services, and other consulting costs.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
	(in thousands)		(in thousands)	
Internal costs:				
Research and drug discovery	$ 8,465	$ 8,294	$ 17,434	$ 16,454
Process and product development	5,189	3,757	10,217	7,445
Manufacturing	10,555	9,320	22,730	17,969
Clinical development	3,085	1,806	6,018	4,040
Total internal costs	27,294	23,177	56,399	45,908
External Program Costs:				
Research and drug discovery	532	816	844	1,571
Process and product development	926	87	1,430	268
Manufacturing	5,609	5,040	10,320	8,708
Clinical development	7,231	3,212	11,998	5,867
Total external program costs	14,298	9,155	24,592	16,414
Total research and development expenses	$ 41,592	$ 32,332	$ 80,991	$ 62,322

General and Administrative

Our general and administrative expenses consist primarily of personnel costs, expenses for outside professional services, including legal, human resources, audit, accounting and tax services and allocated facilities-related costs. Personnel costs include salaries, employee benefits and stock-based compensation. We expect to incur additional expenses operating as a public company, including expenses related to compliance with the rules and regulations of the SEC and listing standards applicable to companies listed on the Nasdaq Global Market, additional insurance expenses, investor relations activities and other administrative and professional services. We also expect to increase the size of our administrative function and our general and administrative expenses to support the anticipated growth of our business, and as we continue to advance our product candidates into and through the clinic.

Interest Income

Interest income consists primarily of interest earned on our invested funds.

Unrealized Gain (Loss) on Equity Securities

Unrealized gain (loss) on equity securities consists of the remeasurement of our investment in Vaxcyte common stock.

Non-cash interest expense related to the sale of future royalties

Non-cash interest expense related to the sale of future Vaxcyte royalties represents the imputed interest expense on our deferred royalty obligation related to the sale of future Vaxcyte royalties pursuant to the Purchase Agreement using the effective interest method. As further described in the interim condensed financial statements Note 9. Deferred Royalty Obligation Related to the Sale of Future Royalties, in June 2023, we entered into the Purchase Agreement with Blackstone, pursuant to which we sold to Blackstone our 4% royalty, or revenue interest, in the potential future net sales of Vaxcyte products, including VAX-24.

Non-cash interest expense will be recognized over the estimated life of the royalty term arrangement using the effective interest method based on the imputed interest rate derived from estimated amounts and timing of future royalty payments to be earned and received by Blackstone from Vaxcyte under the 2015 License Agreement.

Interest and Other Income (Expense), Net

Interest expense includes interest incurred on our debt and amortization of debt issuance costs, including accretion of the final payment. Additionally, we identified a financing component under the Astellas Agreement and recorded interest expense associated with the upfront payment. Other income (expense) includes realized gain (loss) on the equity securities.

Income Taxes

We recorded an income tax charge of $0.2 million and $0.5 million during the three and six months ended June 30, 2023, respectively. The income tax charge was primarily due to unfavorable book-tax differences related to capitalizing and amortizing research and development expenditures under Internal Revenue Code, or IRC, Section 174, the upfront payment from the sale of future royalties, and IRC Section 382 limitations imposed on the utilization of our historical tax attributes as a result of cumulative ownership changes that we more likely than not experienced in prior years.

We recorded a foreign income tax charge of $2.5 million due to a withholding tax in China on an upfront license fee payment received from Tasly during the three and six months ended June 30, 2022.

All other income tax charges and benefits for the three and six months ended June 30, 2023, and 2022, have been immaterial, primarily due to the net loss in each period. Our deferred tax assets continue to be fully offset by a valuation allowance.

Comparison of the Three Months Ended June 30, 2023 and 2022

	Three Months Ended June 30,			
	2023	2022	Change	Change (%)
	(in thousands)			
Revenues	$ 10,412	$ 28,096	$ (17,684)	-63 %
Operating expenses				
Research and development	41,592	32,332	9,260	29 %
General and administrative	14,999	15,143	(144)	(1)%
Total operating expenses	56,591	47,475	9,116	19 %
Loss from operations	(46,179)	(19,379)	(26,800)	138 %
Interest income	2,842	197	2,645	1,343 %
Unrealized gain (loss) on equity securities	8,321	(3,736)	12,057	(323)%
Non-cash interest expense related to the sale of future royalties	(442)	-	(442)	*
Interest and other income (expense), net	(2,915)	(594)	(2,321)	391 %
Loss before provision for income taxes	(38,373)	(23,512)	(14,861)	63 %
Provision for income taxes	151	2,500	(2,349)	(94)%
Net loss	$ (38,524)	$ (26,012)	$ (12,512)	48 %

*Percentage not meaningful

Revenue

We have recognized revenue as follows during the indicated periods:

	Three Months Ended June 30,			
	2023	2022	Change	Change (%)
	(in thousands)			
Bristol Myers Squibb Company (“BMS”)	$ 2,236	$ 2,266	$ (30)	(1)%
Merck Sharp & Dohme Corporation (“Merck”)	140	146	(6)	(4)%
Merck KGaA, Darmstadt, Germany (operating in the United States and Canada under the name “EMD Serono”)	-	137	(137)	(100)%
Astellas Pharma Inc. (“Astellas”)	7,333	-	7,333	*
Vaxcyte	703	547	156	29 %
Tasly Biopharmaceuticals Co., Ltd. (“Tasly”)	-	25,000	(25,000)	(100)%
Total revenue	$ 10,412	$ 28,096	$ (17,684)	-63 %

*Percentage not meaningful

Total revenue decreased by $17.7 million during the three months ended June 30, 2023, as compared to the three months ended June 30, 2022. This was primarily due to an earned $25.0 million upfront payment under the Tasly License Agreement in 2022 and a $0.1 million decrease in EMD Serono revenue due to its decision to end clinical development of M1231. These decreases were partially offset by a $7.3 million increase from Astellas, of which $3.2 million was from the ongoing performance related to partially unsatisfied performance obligations, $2.5 million was from the financing component related to the Astellas Agreement, and $1.6 million was from research and development services, and a $0.2 million increase in Vaxcyte revenue.

Research and Development Expense

Research and development expense increased by $9.3 million, or 29%, during the three months ended June 30, 2023, as compared to the three months ended June 30, 2022. The overall increase was due primarily to increases of $4.6 million in personnel-related expenses due to higher headcount, $2.8 million in laboratory supplies and preclinical research and clinical development expenses, $0.9 million in consulting and outside services, $0.9 million in facilities-related expenses, and $0.1 million in equipment and office-related expenses.

General and Administrative Expense

General and administrative expense decreased by $0.1 million, or 1%, during the three months ended June 30, 2023, as compared to the three months ended June 30, 2022. The overall decrease was due primarily to a $0.3 million decrease in personnel-related expenses, partially offset by a $0.2 million increase in equipment and office-related expenses.

Interest Income

Interest income increased by $2.6 million during the three months ended June 30, 2023, as compared to the three months ended June 30, 2022, due primarily to higher average investment balances and higher average rates of return in 2023.

Unrealized Gain / (Loss) on Equity Securities

Unrealized gain on equity securities was $8.3 million during the three months ended June 30, 2023, as compared to an unrealized loss of $3.7 million for the three months ended June 30, 2022. The unrealized gain (loss) on equity securities in each period was entirely due to the remeasurement of the fair value of our investment in Vaxcyte common stock.

Non-cash interest expense related to the sale of future royalties

Non-cash interest expense increased by $0.4 million during the three months ended June 30, 2023, as compared to the three months ended June 30, 2022. Non-cash interest expense was recognized on our deferred royalty obligation related to the June 2023 sale of future Vaxcyte royalties pursuant to the Purchase Agreement using the effective interest method based on the imputed interest rate derived from estimated amounts and timing of future royalty payments to be earned and received by Blackstone from Vaxcyte under the 2015 License Agreement. No non-cash interest expense was recorded during the three months ended June 30, 2022.

Interest and Other Income (Expense), Net

Interest and other income (expense), net, increased by $2.3 million during the three months ended June 30, 2023, as compared to the three months ended June 30, 2022, due primarily to the increase of $2.5 million from the financing component related to the Astellas Agreement, partially offset by a decrease of $0.2 million in interest incurred on our outstanding loan.

Comparison of the Six Months Ended June 30, 2023 and 2022

	Six Months Ended June 30,			
	2023	2022	Change	Change (%)
	(in thousands)			
Revenues	$ 23,086	$ 33,993	$ (10,907)	(32)%
Operating expenses				
Research and development	80,991	62,322	18,669	30 %
General administrative	30,511	30,182	329	1 %
Total operating expenses	111,502	92,504	18,998	21 %
Loss from operations	(88,416)	(58,511)	(29,905)	51 %
Interest income	5,402	313	5,089	1,626 %
Unrealized gain (loss) on equity securities	1,329	(3,173)	4,502	(142)%
Non-cash interest expense related to the sale of future royalties	(442)	-	(442)	*
Interest and other income (expense), net	(5,901)	(1,251)	(4,650)	372 %
Loss before provision for income taxes	(88,028)	(62,622)	(25,406)	41 %
Provision for income taxes	546	2,500	(1,954)	(78)%
Net loss	$ (88,574)	$ (65,122)	$ (23,452)	36 %

*Percentage not meaningful

Revenue

We have recognized revenue as follows during the indicated periods:

	Six Months Ended June 30,			
	2023	2022	Change	Change (%)
	(in thousands)			
Bristol Myers Squibb Company (“BMS”)	$ 5,402	$ 4,431	$ 971	22 %
Merck Sharp & Dohme Corporation (“Merck”)	2,693	1,210	1,483	123 %
Merck KGaA, Darmstadt, Germany (operating in the United States and Canada under the name “EMD Serono”)	8	2,034	(2,026)	(100)%
Astellas Pharma Inc. (“Astellas”)	13,605	–	13,605	*
Vaxcyte	1,378	1,318	60	5 %
Tasly Biopharmaceuticals Co., Ltd. (“Tasly”)	–	25,000	(25,000)	(100)%
Total revenue	$ 23,086	$ 33,993	$ (10,907)	(32)%

*Percentage not meaningful

Total revenue decreased by $10.9 million during the six months ended June 30, 2023, as compared to the six months ended June 30, 2022. This was primarily due to an earned $25.0 million upfront payment under the Tasly License Agreement in 2022, and a $2.0 million decrease from EMD Serono due to its decision to end clinical development of M1231. These decreases were partially offset by a $13.6 million increase from Astellas, of which $5.8 million was from the ongoing performance related to partially unsatisfied performance obligations, $5.1 million was from the financing component related to the Astellas Agreement, and $2.7 million was from research and development services, a $1.5 million increase in Merck revenue primarily due to a $2.4 million increase in manufacturing activities supporting clinical trial supply, partially offset by a $0.9 million decrease from the 2022 completion of the performance obligation associated with the extension of the research term for the first target program under the 2018 Merck Agreement, and a $1.0 million increase in BMS revenue primarily due to materials supply.

Research and Development Expense

Research and development expense increased by $18.7 million, or 30%, during the six months ended June 30, 2023, as compared to the six months ended June 30, 2022. The overall increase was due primarily to increases of $8.9 million in personnel-related expenses due to higher headcount, $5.7 million in laboratory supplies and preclinical research and clinical development expenses, $2.0 million in consulting and outside services, $1.7 million in facilities-related expenses, and $0.4 million in equipment and office-related expenses.

General and Administrative Expense

General and administrative expense increased by $0.3 million, or 1%, during the six months ended June 30, 2023, as compared to the six months ended June 30, 2022. The increase was due primarily to increases of $0.7 million in equipment and office-related expenses, partially offset by a $0.4 million decrease in personnel-related expenses.

Interest Income

Interest income increased by $5.1 million during the six months ended June 30, 2023, as compared to the six months ended June 30, 2022, due primarily to higher average investment balances and higher average rates of return in 2023.

Unrealized Gain / (Loss) on Equity Securities

Unrealized gain on equity securities was $1.3 million during the six months ended June 30, 2023, as compared to an unrealized loss of $3.2 million for the six months ended June 30, 2022. The unrealized gain (loss) on equity securities in each period was entirely due to the remeasurement of the fair value of our investment in Vaxcyte common stock.

Non-cash interest expense related to the sale of future royalties

Non-cash interest expense increased by $0.4 million during the six months ended June 30, 2023, as compared to the six months ended June 30, 2022. Non-cash interest expense was recognized on our deferred royalty obligation related to the June 2023 sale of future Vaxcyte royalties pursuant to the Purchase Agreement using the effective interest method

based on the imputed interest rate derived from estimated amounts and timing of future royalty payments to be earned and received by Blackstone from Vaxcyte under the 2015 License Agreement. No non-cash interest expense was recorded during the six months ended June 30, 2022.

Interest and Other Income (Expense), Net

Interest and other income (expense), net, increased by $4.7 million during the six months ended June 30, 2023, as compared to the six ended June 30, 2022, due primarily to the increase of $5.1 million from the financing component related to the Astellas Agreement, partially offset by a decrease of $0.4 million in interest incurred on our outstanding loan.

Liquidity and Capital Resources

Sources of Liquidity

To date, we have incurred significant net losses, and negative cash flows from operations. Our operations have been funded primarily by payments received from our collaborators, and net proceeds from equity sales, debt, and a royalty monetization. As of June 30, 2023, we had cash, cash equivalents and marketable securities of $358.3 million, equity securities of $33.3 million, outstanding debt of $10.2 million and an accumulated deficit of $541.2 million.

Upfront Payment from Blackstone

In June 2023, we entered into a Purchase Agreement with Blackstone, pursuant to which we sold to Blackstone our 4% royalty, or revenue interest, in potential future net sales of Vaxcyte products, including VAX-24. We retain the right to discover and develop vaccines for the treatment or prophylaxis of any disease that is not caused by an infectious pathogen, including cancer.

Blackstone made an upfront payment of $140.0 million to us and will also pay up to an additional $250.0 million upon the achievement of various return thresholds, as set forth in the Purchase Agreement.

At-The-Market Sales

During the three and six months ended June, 2023, we sold an aggregate of 216,036 shares and 1,857,410 shares, respectively, of our common stock through our ATM Facility pursuant to the Sales Agreement with Jefferies. The gross proceeds from these sales were approximately $1.2 million and $12.4 million, respectively, before deducting fees of approximately $0.2 million and $0.4 million, respectively, resulting in net proceeds of approximately $1.0 million and $12.0 million, respectively.

Upfront Payment from Astellas

In June 2022, we entered into a License and Collaboration Agreement with Astellas, for the development of immunostimulatory antibody-drug conjugates for up to three biological targets, to be identified by Astellas. Pursuant to the agreement with Astellas, we received from Astellas a one-time, nonrefundable, non-creditable, upfront payment of $90.0 million during the three months ended September 30, 2022.

Upfront Payment from Tasly

During the year ended December 31, 2022, we earned a $25.0 million nonrefundable upfront payment from Tasly under the Tasly License Agreement to grant Tasly an exclusive license to develop and commercialize luvelta in Greater China. The upfront payment, net of a withholding tax of $2.5 million, resulted in a net payment to us of $22.5 million received during the three months ended June 30, 2022.

Upfront Payment from Vaxcyte and Vaxcyte Equity Ownership

In December 2022, we entered into a letter agreement (the “Vaxcyte Agreement”) with Vaxcyte under which the Company granted to Vaxcyte (i) authorization to enter into an agreement with an independent alternate contract manufacturing organization, or CMO, to source cell-free extract solely for the products it licensed from the us, allowing Vaxcyte to have direct oversight over financial and operational aspects of the relationship with the CMO, and (ii) a right, but not an obligation, to obtain certain exclusive rights to internally manufacture and/or source extract from certain CMOs and the right to independently develop and make improvements to extract for use in connection with the exploitation of certain vaccine compositions (the “Option”).

Pursuant to the Vaxcyte Agreement, we received from Vaxcyte a one-time, nonrefundable, non-creditable, upfront payment of $10.0 million in cash, and 167,780 shares of Vaxcyte's common stock with a fair value of $7.5 million at the date of the transaction in December 2022.

As of June 30, 2023, we held 667,780 shares of Vaxcyte common stock, which include the 167,780 shares received from Vaxcyte under the Vaxcyte Agreement. The estimated fair value of Vaxcyte common stock was $33.3 million as of June 30, 2023.

Contingent Payment from Merck

In July 2022, the first patient was dosed in a Phase 1 study of an investigational candidate resulting from the 2018 Merck Agreement for the first program in our collaboration to develop novel cytokine derivative therapeutics for the treatment of cancer. As a result of this achievement, we earned and received a $10.0 million contingent payment from Merck during the three months ended September 30, 2022.

Term Loan

For a description of our Loan and Security Agreement with Oxford Finance LLC and Silicon Valley Bank, please see Note 6 to our condensed financial statements.

Leases

In June 2021, we entered into a third amendment, or Third Amendment, to our manufacturing facility lease, dated May 18, 2011, as amended, by and between Alemany Plaza LLC, located at San Carlos, California, or San Carlos Lease, as an extension to the term of the San Carlos Lease for a period of five years, or the Lease Extension Period. Pursuant to the Third Amendment, the San Carlos Lease will expire on July 31, 2026, and it includes an option to renew the San Carlos Lease for an additional five years. The aggregate estimated base rent payments due over the Lease Extension Period is approximately $4.2 million, subject to certain terms contained in the San Carlos Lease.

In June 2021, we entered into a first amendment, or First Amendment, to our manufacturing facility lease, dated March 4, 2015, as amended, by and between 870 Industrial Road LLC, located at San Carlos, California, or the Industrial Lease, as an extension to the term of the Industrial Lease for a period of five years, or the Industrial Lease Extension Period. Pursuant to the first Amendment, the Industrial Lease will expire on June 30, 2026, and it includes an option to renew the Industrial Lease for an additional five years. The aggregate estimated base rent payments due over the Industrial Lease Extension Period is approximately $4.3 million, subject to certain terms contained in the Industrial Lease.

In September 2020, we entered into a sublease agreement, or the Sublease with Five Prime Therapeutics, Inc., or the Sublessor, for approximately 115,466 square feet, in a building located in South San Francisco, California, or the Premises. We use the Premises as our corporate headquarters and to conduct (or expand) research and development activities. We commenced making monthly payments for the first 85,755 square feet of the Premises, or Initial Premises, in July 2021, with occupancy of such space commencing in August 2021. We were provided early access to the Initial Premises in the fourth quarter of 2020 to conduct certain planning and tenant improvement work. The Sublease is subordinate to the lease agreement, effective December 12, 2016, between the Sublessor and HCP Oyster Point III LLC, or the Landlord. We commenced using the remaining 29,711 square feet of the Premises, or the Expansion Premises, on July 1, 2023 under the sublease agreement. The Sublease for both the Initial Premises and Expansion Premises will expire on December 31, 2027. With a commencement date on the Initial Premises of July 1, 2021, and Expansion Premises of July 1, 2023, the aggregate estimated base rent payments due over the term of the Sublease are approximately $39.1 million, including the approximately $5.2 million in potential financial benefit to us of base rent abatement to be provided by the Sublessor, subject to certain terms contained in the Sublease. The Sublease contains customary provisions requiring us to pay our pro rata share of utilities and a portion of the operating expenses and certain taxes, assessments and fees of the Premises and provisions allowing the Sublessor to terminate the Sublease upon the termination of the lease with the Landlord or if we fail to remedy a breach of certain of its obligations within specified time periods. Additionally, we posted a security deposit of $0.9 million, which is reflected as restricted cash in non-current assets on our Balance Sheet as of June 30, 2023 and December 31, 2022.

Funding Requirements

Based upon our current operating plan, we believe that our existing capital resources will enable us to fund our operating expenses and capital expenditure requirements through at least the next twelve months after the date of this filing. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. We will continue to require additional financing to advance our current product candidates into and through clinical development, to develop, acquire or in-license other potential product candidates, pay our obligations and to fund operations for the foreseeable future.

We may seek to raise any necessary additional capital through a combination of public or private equity offerings, debt financings, collaborations, strategic alliances, licensing arrangements, marketing and distribution arrangements, royalty monetizations, or other sources of financing. Adequate additional funding may not be available to us on acceptable terms, or at all. Any failure to raise capital as and when needed could have a negative impact on our financial condition and on our ability to pursue our business plans and strategies, and may cause us to delay, reduce the scope of or suspend one or more of our pre-clinical and clinical studies, research and development programs or commercialization efforts, and may necessitate us to delay, reduce or terminate planned activities in order to reduce costs. Due to the numerous risks and uncertainties associated with the development and commercialization of our product candidates and the extent to which we may enter into additional collaborations with third parties to participate in their development and commercialization, we are unable to estimate the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical studies.

To the extent we raise additional capital through new collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our product candidates, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we do raise additional capital through public or private equity or convertible debt offerings, the ownership interest of our existing stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect our stockholders' rights. 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.

Cash Flows

The following table summarizes our cash flows during the periods indicated:

	Six Months Ended June 30,	
	2023	2022
	(in thousands)	
Net cash used in operating activities	$ (92,186)	$ (38,441)
Net cash provided by investing activities	133,608	80,897
Net cash provided by financing activities	146,419	6,245
Net increase in cash, cash equivalents and restricted cash	$ 187,841	$ 48,701

Cash Flows from Operating Activities

Cash used in operating activities for the six months ended June 30, 2023 was $92.2 million. Our net loss of $88.6 million included non-cash charges of $12.7 million for stock-based compensation, $3.6 million for the accretion of discount on marketable securities, $3.3 million for depreciation and amortization, $1.3 million for the unrealized gain on equity securities as a result of the remeasurement of the estimated fair value of our investment in Vaxcyte common stock, $1.3 million for non-cash lease expense, and $0.4 million for non-cash interest expense on our deferred royalty obligation. Cash used in operating activities also reflected a net change in operating assets and liabilities of $16.7 million, due to a decrease of $8.7 million in deferred revenue from revenue recognized under our collaboration agreements, a decrease of $3.6 million in accrued compensation expense primarily due to bonuses paid in 2023 in connection with certain company 2022 goal achievements, an increase of $2.9 million in accounts receivable from our collaborators, a decrease of $1.7 million in our operating lease liability, and an increase of $0.1 million in prepaid expenses and other assets, which were partially offset by an increase of $0.5 million in accounts payable, accrued expenses and other liabilities due to timing of payments.

Cash used in operating activities for the six months ended June 30, 2022 was $38.4 million. Our net loss of $65.1 million included non-cash charges of $13.7 million for stock-based compensation, $3.2 million for unrealized loss on equity securities as a result of the remeasurement of the estimated fair value of our investment in Vaxcyte common stock, $2.7 million for depreciation and amortization, $1.3 million for noncash lease expense, and $0.9 million for the

amortization of premium on marketable securities. Cash used in operating activities also reflected a net change in operating assets and liabilities of $4.9 million, due to an increase of $91.0 million in deferred revenue primarily due to the $90.0 million upfront payment receivable from Astellas, an increase of $1.9 million in accounts payable, accrued expenses and other liabilities due to timing of payments, and an increase of $0.9 million in our operating lease liability, which were partially offset by an increase of $85.2 million in accounts receivable from our collaborators, a decrease of $3.7 million in accrued compensation expense primarily due to bonuses paid in connection with certain company goal achievements, and an increase of $0.1 million in prepaid expenses and other assets.

Cash Flows from Investing Activities

Cash provided by investing activities of $133.6 million for the six months ended June 30, 2023 was primarily related to maturities and sales of marketable securities of $277.5 million, partially offset by purchases of marketable securities of $141.4 million, and purchases of property and equipment of $2.5 million, principally for laboratory equipment.

Cash provided by investing activities of $80.9 million for the six months ended June 30, 2022 was primarily related to maturities and sales of marketable securities of $99.6 million, partially offset by purchases of marketable securities of $14.9 million and purchases of property and equipment of $3.8 million, principally for laboratory equipment.

Cash Flows from Financing Activities

Cash provided by financing activities of $146.4 million for the six months ended June 30, 2023 was primarily related to $139.7 million of net proceeds from the sale of future royalties, $12.0 million of net proceeds from our ATM Facility sales of common stock, $1.1 million of net proceeds received from participants in our employee equity plans, and $0.3 million of proceeds received from the exercise of common stock options, partially offset by a debt repayment of $6.3 million and a $0.5 million tax payment related to the net shares settlement of vested restricted stock units.

Cash provided by financing activities of $6.2 million for the six months ended June 30, 2022 was primarily related to $8.6 million of net proceeds from our ATM Facility sales of common stock, $1.0 million of net proceeds received from participants in our employee equity plans, and $0.2 million of proceeds received from the exercise of common stock options, partially offset by a debt repayment of $3.1 million, and a $0.4 million tax payment related to the net shares settlement of vested restricted stock units.

Contractual Obligations and Other Commitments

In addition to the contractual obligations and commitments as noted above and elsewhere in this Quarterly Report on Form 10-Q with regards to the leases and term loans, we enter into agreements in the normal course of business, including with contract research organizations for clinical trials, contract manufacturing organizations for certain manufacturing services, and vendors for preclinical studies and other services and products for operating purposes, which are generally cancelable upon written notice.

Critical Accounting Policies and Estimates

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

There have been no material changes to our critical accounting policies and estimates discussed in our Annual Report on Form 10-K for the year ended December 31, 2022, except for the applicable accounting policies and estimates related to the deferred royalty obligation and related non-cash interest expense under the Purchase Agreement with Blackstone entered into in June 2023. We treat the sale of Vaxcyte future royalties to Blackstone as a deferred royalty obligation, as we have significant continuing involvement in the generation of the cash flows. Due to our continuing involvement, we will account for any royalties earned as non-cash revenue. As royalties are remitted to Blackstone from Vaxcyte, the balance of the deferred royalty obligation will be effectively amortized over the estimated life of the royalty term arrangement. We recorded the proceeds from this transaction as a liability on our Balance Sheets related to the sale of future royalties to be amortized to interest expense using the effective interest rate method over the estimated life of the royalty term arrangement. The liability related to sale of future royalties and the related interest expense are based on our current estimates of future royalties expected to be earned by Blackstone from Vaxcyte over the estimated life of the royalty term arrangement. We will periodically assess the estimated royalties to be earned using forecasts from external sources. To the extent our future estimates of earned royalties are greater or less than previous estimates or the estimated timing of such payments is materially different than our previous estimates, we will prospectively recognize related non-cash interest expense.

Recent Accounting Pronouncements

See Note 2 to our financial statements included elsewhere in this report for more information.

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. The primary objective of our investment activities is to preserve our capital to fund our operations. We also seek to maximize income from our investments without assuming significant risk. To achieve our objectives, we maintain a portfolio of cash equivalents and investments in a variety of securities of high credit quality.

We had cash, cash equivalents and marketable securities of $358.3 million and $302.3 million as of June 30, 2023 and December 31, 2022, respectively, which consisted primarily of money market funds, commercial paper, corporate debt securities, asset-based securities, U.S. government securities, U.S. agency securities and supranational debt securities. Such interest earning instruments carry a degree of interest rate risk; however, historical fluctuations in interest income have not been significant. Additionally, we had equity securities of $33.3 million as of June 30, 2023, consisting solely of common stock of Vaxcyte.

Equity risk is the risk we will incur economic losses due to adverse changes in equity prices. Our potential exposure to changes in equity prices results from our Vaxcyte common stock holdings. Therefore, we are subject to market risk if such holdings materially decrease in value. A hypothetical 10 percent decrease in the market price for our equity investments as of June 30, 2023 would decrease the fair value by $3.3 million. We intend to manage equity price risk going forward by continuously evaluating market conditions.

We do not enter into investments for trading or speculative purposes and have not used any derivative financial instruments to manage our interest rate risk exposure. We have not been exposed nor do we anticipate being exposed to material risks due to changes in interest rates. A hypothetical 10% change in market interest rates would not have a material impact on our financial statements. We do not believe that our cash, cash equivalents or marketable securities have significant risk of default or illiquidity.

As of June 30, 2023 and December 31, 2022, we had $10.2 million and $16.3 million, respectively, in debt outstanding, net of debt discount. Until June 30, 2023, our existing debt with Oxford and SVB bore interest at a floating per annum rate equal to the greater of (i) 8.07% or (ii) the sum of (a) the greater of (1) the thirty (30) day U.S. LIBOR rate reported in the Wall Street Journal on the last business day of the month that immediately precedes the month in which the interest will accrue or (2) 1.67%, plus (b) 6.40%. In June 2023, we entered into an amendment to the LSA with Oxford and SVB (the “5th LSA Amendment”). Under the 5th LSA Amendment, effective July 1, 2023, the loan will bear interest at the floating per annum rate of interest equal to the greater of (i) 8.07% and (ii) the sum of (a) a specific published 1-month secured overnight financing rate (SOFR) reported on the last business day of the month that immediately precedes the month in which the interest will accrue, plus (b) 0.10%, plus (c) 6.40%. There was an immaterial impact of the 5th LSA Amendment on our financial statements. This debt matures on March 1, 2024 and was interest-only through March 1, 2022. Such interest-bearing debt carries a limited degree of interest rate risk. If overall interest rates had increased or decreased by 100 basis points during the periods presented our interest expense would not have been materially affected.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

As of June 30, 2023, management, with the participation of our Chief Executive Officer (our principal executive officer) and Chief Financial Officer (our principal financial officer), performed an evaluation of the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act. Our disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including the Chief Executive Officer and the Chief Financial Officer, to allow timely decisions regarding required disclosures.

Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. Any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objective and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of June 30, 2023, our disclosure controls and procedures were effective at a reasonable assurance level.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the quarter ended June 30, 2023 that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

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

Item 1A. *Risk Factors*

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before making your decision to invest in shares of our common stock, you should carefully consider the risks described below, together with the other information contained in this Quarterly Report on Form 10-Q, including our financial statements and the related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations." The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that affect us. We cannot assure you that any of the events discussed below will not occur. These events could have a material and adverse impact on our business, financial condition, results of operations and prospects. If that were to happen, the trading price of our common stock could decline, and you could lose all or part of your investment.

Summary of Risk Factors

Our business is subject to a number of risks and uncertainties, including those highlighted in the section titled "Risk Factors" immediately following this summary. Some of these risks include:

•We have a limited operating history, a history of significant losses and may never achieve or maintain profitability.

•We will need substantial additional funds to advance development of our product candidates and failure to obtain sufficient funding, may force us to delay, limit or terminate our product development programs, commercialization efforts or other operations. Continued unfavorable conditions in the capital markets may pose difficulties to us in accessing additional capital on reasonable, or even any, terms to continue our product and platform development or other operations.

•Our product candidates are in early stages of development and may fail, be impacted by competitive products or suffer delays that materially and adversely affect their commercial viability. Our business is dependent on the success of our product candidates based on our proprietary XpressCF® and XpressCF+® platforms and, in particular, our most advanced product candidate, STRO-002, or luveltamab tazevibulin or luvelta, and other product candidates.

•If we do not achieve our development goals in the time frames we anticipate and project, the commercialization of our products may be delayed and, as a result, our stock price may decline.

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

•Security breaches, cyber-attacks, loss of data, and other disruptions at our facilities or at our third-party contract research organization, or CROs, contract manufacturing organizations, or CMOs, or other vendors could compromise sensitive information related to our business or other personal information or prevent us from accessing critical information and expose us to liability, which could adversely affect our business, reputation, results of operations, financial condition and prospects.

•Our failure to comply with privacy and data protection laws or to adequately secure the personal information we hold could result in significant liability or reputational harm and, in turn, a material adverse effect on our client base, member base and revenue.

•If our collaborations with third parties to develop and commercialize certain product candidates are not successful, we may not be able to capitalize on the market potential of our XpressCF® and XpressCF+® platforms and the product candidates.

•We currently manufacture a portion of our product candidates internally and also rely on third-party manufacturing and supply partners to provide us with components of our product candidates and materials used for the manufacture of the product candidates. Our inability to manufacture sufficient quantities of our product candidates or such materials, or the loss of our third-party suppliers, or our or their failure to comply with applicable regulatory requirements or to supply sufficient quantities at acceptable quality levels or prices, or at all, would materially and adversely affect our business.

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

•If we are not able to obtain and enforce patent protection for our technologies or product candidates, development and commercialization of our product candidates may be adversely affected.

•Our collaborators may fail to abide by the terms of the agreements with us, which would require us to seek to enforce our agreements in accordance with the dispute resolution procedures set forth therein. These procedures may require us to engage in litigation or arbitration to enforce our rights, which can be expensive, time-consuming, and distracting to our management and Board of Directors and that may ultimately end up being unsuccessful.

•If we are unable to develop, obtain regulatory approval for or commercialize our product candidates, or experience significant delays in doing so, our business will be materially harmed. Changes in regulatory policy may render our strategies for obtaining regulatory approval less effective or completely ineffective, preventing us from obtaining regulatory approval for our product candidates on time or at all.

Risks Related to Our Business

We are a clinical stage biopharmaceutical company with a limited operating history and no products approved for commercial sale. We have a history of significant losses, expect to continue to incur significant losses for the foreseeable future and may never achieve or maintain profitability, which could result in a decline in the market value of our common stock.

We are a clinical stage biopharmaceutical company with a limited operating history on which to base your investment decision. Biotechnology product development is a highly speculative undertaking and involves a substantial degree of risk.

To date, we have no products approved for commercial sale, have not generated any revenue from commercial product sales and, as of June 30, 2023, had an accumulated deficit of $541.2 million. For the six months ended June 30, 2023, and the year ended December 31, 2022, our net loss was $88.6 million and $119.2 million, respectively. Substantially all of our losses have resulted from expenses incurred in connection with our research and development programs and from general and administrative costs associated with our operations. In addition, our expenses could increase beyond expectations if we are required by the FDA, or foreign regulatory agencies, to perform studies or clinical trials in addition to those studies and clinical trials that we currently anticipate conducting for our product candidates, or if there are any delays in our or our partners completing clinical trials or the development of any of our product candidates. Our technologies and product candidates are in early stages of development, and we are subject to the risks of failure inherent in the development of product candidates based on novel technologies. In addition, we have limited experience as a clinical stage company and have not yet demonstrated an ability to successfully overcome many of the risks and uncertainties frequently encountered by companies in new and rapidly evolving fields, particularly in the biotechnology industry. Furthermore, we do not expect to generate any revenue from commercial product sales for the foreseeable future, and we expect to continue to incur significant operating losses for the foreseeable future due to the cost of research and development, preclinical studies and clinical trials and the regulatory approval process for our product candidates. We expect our net losses to increase substantially as we progress further into clinical development of our lead

programs and create additional infrastructure to support operations as a public company. However, the amount of our future losses is uncertain. We may never generate revenues from the commercial sale of our or our collaborators' products. Our ability to achieve profitability, if ever, will depend on, among other things, our, or our existing or future collaborators', successful development of product candidates, evaluating the related commercial opportunities, obtaining regulatory approvals to market and commercialize product candidates, manufacturing any approved products on commercially reasonable terms, establishing a sales and marketing organization or suitable third-party alternatives for any approved product, and raising sufficient funds to finance business activities. If we, or our existing or future collaborators, are unable to develop our technologies and commercialize one or more of our product candidates or if sales revenue from any product candidate that receives approval is insufficient, we will not achieve profitability, which could have a material and adverse effect on our business, financial condition, results of operations and prospects. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods.

We will need substantial additional funds to advance development of our product candidates. This additional financing may not be available on acceptable terms, or at all. Failure to obtain this necessary capital when needed may force us to delay, limit or terminate our product development programs, commercialization efforts or other operations. Continued unfavorable conditions in the capital markets may pose difficulties to us in accessing additional capital on reasonable, or even any, terms to continue our product and platform development or other operations. In addition, market volatility, high levels of inflation and interest rate fluctuations may increase our cost of capital or otherwise restrict our access to potential sources of future liquidity.

The development of biopharmaceutical product candidates is capital-intensive. If our product candidates enter and advance through preclinical studies and clinical trials, we will need substantial additional funds to expand our development, regulatory, manufacturing, marketing and sales capabilities. We have used substantial funds to develop our technology and product candidates and will require significant funds to conduct further research and development and preclinical testing and clinical trials of our product candidates, to seek regulatory approvals for our product candidates, to manufacture extract and products, if any, which may be approved for commercial sale, to establish marketing and sales capabilities to commercialize our product candidates, and to provide support to our collaborators in the development of their products. In addition, we expect to continue to incur additional costs associated with operating as a public company.

Since our inception, we have invested a significant portion of our efforts and financial resources in research and development activities for our two proprietary clinical-stage product candidates luvelta and STRO-001, and the development of our technology platform, including our in-house manufacturing capabilities. Clinical trials for our product candidates have required substantial funds to date and will continue to require substantial funds to complete. As of June 30, 2023, we had $358.3 million in cash, cash equivalents and marketable securities. We expect to incur substantial expenditures in the foreseeable future as we seek to advance luvelta, STRO-001 and STRO-003 and any future product candidates through clinical development, manufacturing, the regulatory approval process and, if approved, commercial launch activities, as well as in connection with the continued development of our technology platform and manufacturing capabilities. Based on our current operating plan, we believe that our available cash, cash equivalents and marketable securities will be sufficient to fund our operations through at least the next 12 months. However, our future capital requirements and the period for which we expect our existing resources to support our operations may vary significantly from what we expect, and we may need to seek additional funds sooner than planned. Our monthly spending levels vary based on new and ongoing research and development and other corporate activities. Because the length of time and activities associated with successful research and development of our product candidates is highly uncertain, we are unable to estimate the actual funds we will require for development and any marketing and commercialization activities for approved products. The timing and amount of our operating expenditures will depend largely on:

- the timing and progress of preclinical and worldwide clinical development activities;
- the costs associated with the development of our internal manufacturing and research and development facilities and processes;
- the number and scope of preclinical and clinical programs we decide to pursue;
- the progress of the development efforts of parties with whom we have entered or may in the future enter into collaborations and research and development agreements;
- the timing and amount of milestone and other payments we may receive under our collaboration agreements;
- our ability to maintain our current licenses and research and development programs and to establish new collaboration arrangements;

•the costs involved in prosecuting, defending and enforcing patent and other intellectual property claims;

•the costs of manufacturing our product candidates and those of our collaborators using our proprietary XpressCF® and XpressCF+® platforms;

•the cost and timing of regulatory approvals;

•the cost of commercialization activities if our product candidates or any future product candidates are approved for sale, including marketing, sales and distribution costs;

•our efforts to enhance operational systems and hire and retain personnel, including personnel to support development of our product candidates and satisfy our obligations as a public company; and

•general economic, industry and market conditions, including market volatility, high levels of inflation and interest rate fluctuations.

If we are unable to obtain funding on a timely basis or on acceptable terms, we may have to delay, reduce or terminate our research and development programs and preclinical studies or clinical trials, limit strategic opportunities or undergo reductions in our workforce or other corporate restructuring activities. We also could be required to seek funds through arrangements with collaborators or others that may require us to relinquish rights to some of our technologies or product candidates that we would otherwise pursue on our own. We cannot provide assurance that anticipated collaborator payments will, in fact, be received. We do not expect to realize revenue from sales of commercial products or royalties from licensed products in the foreseeable future, if at all, and, in no event, before our product candidates are clinically tested, approved for commercialization and successfully marketed. To date, we have primarily financed our operations through payments received under our collaboration and other associated agreements, the sale of equity securities, debt financing and a royalty monetization agreement. We will be required to seek additional funding in the future and currently intend to do so through additional collaborations and/or licensing agreements, public or private equity offerings or debt financings, credit or loan facilities, royalty monetization or a combination of one or more of these funding sources. Our ability to raise additional funds will depend on financial, economic and other factors, many of which are beyond our control, including the factors impacting potential interest rates for any debt financings. Additional funds may not be available to us on acceptable terms or at all.

In addition, current macroeconomic conditions have caused turmoil in the global banking system. For example, in March 2023, Silicon Valley Bank, or SVB, one of our banking partners and lenders, was closed by the California Department of Financial Protection and Innovation, which appointed the Federal Deposit Insurance Corporation, or FDIC, as receiver. Under the terms of our Loan and Security Agreement, we were required to keep substantially all of our cash and investments with SVB, the substantial majority of which was held in a custodial account with another institution, for which SVB Asset Management was the advisor. While we were afforded full access to our cash and investments with SVB, and have since amended our Loan and Security Agreement to provide us with greater cash management flexibility, we may be impacted by other disruptions to the U.S. banking system, including potential delays in our ability to transfer funds whether held with SVB or otherwise and in short-term potential delays in making payments to vendors while new banking relationships are established.

Subject to limited exceptions, our Loan and Security Agreement with Oxford and SVB prohibits us from incurring indebtedness without the prior written consent of Oxford and SVB. If we raise additional funds by issuing equity securities, our stockholders will suffer dilution and the terms of any financing may adversely affect the rights of our stockholders. If we raise additional funds through licensing or collaboration arrangements with third parties, we may have to relinquish valuable rights to our product candidates, or grant licenses on terms that are not favorable to us. In addition, as a condition to providing additional funds to us, future investors may demand, and may be granted, rights superior to those of existing stockholders. Our current debt financing involves, and future debt financings, if available, are likely to involve, restrictive covenants limiting our flexibility in conducting future business activities, and, in the event of insolvency, debt holders would be repaid before holders of our equity securities receive any distribution of our corporate assets. Failure to obtain capital when needed on acceptable terms may force us to delay, limit or terminate our product development and commercialization of our current or future product candidates, which could have a material and adverse effect on our business, financial condition, results of operations and prospects.

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

We have no products on the market and all of our product candidates for cancer therapy are in clinical development. Our most advanced product candidate, Iuvelta, is in a recently initiated registration-directed Phase 2/3 trial, REFRaME. Additionally, as part of our BMS collaboration to develop of CC-99712, a BCMA targeting-ADC, we announced that BMS notified us of its decision to terminate its development of CC-99712 as a result of a portfolio prioritization decision and the sole worldwide rights to CC-99712 will revert to us upon the termination of the BMS Agreement. Further, Merck initiated patient dosing in a Phase 1 clinical trial for MK-1484 in July 2022, a product candidate resulting from our cytokine-derivative collaboration. In the first quarter of 2022, Vaxcyte announced that it had initiated a Phase 1/2 clinical proof-of-concept study of its lead product candidate, VAX-24, its 24-valent pneumococcal conjugate vaccine candidate, under investigation for the prevention of invasive pneumococcal disease in adults, and announced clinical data in April 2023. Additionally, we have programs that are in earlier stages of discovery and preclinical development and may never advance to clinical-stage development. Our ability to achieve and sustain profitability depends on obtaining regulatory approvals for and successfully commercializing our product candidates, either alone or with third parties, and we cannot guarantee you that we will ever obtain regulatory approval for any of our product candidates. We have limited experience in conducting and managing the clinical trials necessary to obtain regulatory approvals, including approval by the FDA. Before obtaining regulatory approval for the commercial distribution of our product candidates, we or an existing or future collaborator must conduct extensive preclinical tests and clinical trials to demonstrate the safety and efficacy in humans of our product candidates.

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

- negative or inconclusive results from our clinical trials or the clinical trials of others for product candidates similar to ours, leading to a decision or requirement to conduct additional preclinical testing or clinical trials or abandon a program;
- product-related side effects experienced by patients in our clinical trials or by individuals using drugs or therapeutic biologics similar to our product candidates;
- difficulty achieving successful continued development of our internal manufacturing processes, including process development and scale-up activities to supply products for preclinical studies, clinical trials and commercial sale;
- our inability to successfully transfer our manufacturing expertise and techniques to third-party contract manufacturers;
- inability of us or any third-party contract manufacturer to scale up manufacturing of our product candidates and those of our collaborators to supply the needs of clinical trials and commercial sales, and to manufacture such products in conformity with regulatory requirements using our proprietary XpressCF® and XpressCF+® platforms;
- delays in submitting INDs or comparable foreign applications or delays or failures in obtaining the necessary approvals from regulators to commence a clinical trial, or a suspension or termination of a clinical trial once commenced;
- conditions imposed by the FDA or comparable foreign authorities regarding the scope or design of our clinical trials;
- delays in enrolling patients in our clinical trials;
- high drop-out rates of our clinical trial patients;
- inadequate supply or quality of product candidate components or materials or other supplies necessary for the conduct of our clinical trials;
- inability to obtain alternative sources of supply for which we have a single source for product candidate components or materials;

•occurrence of epidemics, pandemics or contagious diseases, such as the novel strain of coronavirus, and potential effects on our business, clinical trial sites, supply chain and manufacturing facilities;

•greater than anticipated costs of our clinical trials;

•harmful side effects or inability of our product candidates to meet efficacy endpoints during clinical trials;

•failure to demonstrate in our clinical trials a sufficient response rate or duration of response;

•failure to demonstrate a benefit-risk profile acceptable to the FDA or other regulatory agencies;

•unfavorable FDA or other regulatory agency inspection and review of one or more of our clinical trial sites or manufacturing facilities;

•failure of our third-party contractors or investigators to comply with regulatory requirements or otherwise meet their contractual obligations in a timely manner, or at all;

•delays and changes in regulatory requirements, policy and guidelines, including the imposition of additional regulatory oversight around clinical testing generally or with respect to our technology in particular; and

•varying interpretations of our data by the FDA and similar foreign regulatory agencies.

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

Our business is dependent on the success of our product candidates based on our proprietary XpressCF® and XpressCF+® platforms and, in particular, our proprietary product candidates, luvelta, STRO-001 and STRO-003. Existing and future preclinical studies and clinical trials of our product candidates may not be successful. If we are unable to commercialize our product candidates or experience significant delays in doing so, our business will be materially harmed.

We have invested a significant portion of our efforts and financial resources in the development of our proprietary XpressCF® and XpressCF+® platforms and our proprietary product candidates, luvelta, STRO-001 and STRO-003. Our ability to generate commercial product revenues, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of luvelta, STRO-001 and STRO-003. We have not previously submitted a new drug application, or NDA, or a biologics license application, or BLA, to the FDA, or similar regulatory approval filings to comparable foreign authorities, for any product candidate, and we cannot be certain that our product candidates will be successful in clinical trials or receive regulatory approval. Further, our product candidates may not receive regulatory approval even if they are successful in clinical trials. If we do not receive regulatory approvals for our product candidates, we may not be able to continue our operations. Even if we successfully obtain regulatory approvals to market our product candidates, our revenues will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval and have commercial rights. If the markets for patient subsets that we are targeting are not as significant as we estimate, we may not generate significant revenues from sales of such products, if approved.

We plan to seek regulatory approval to commercialize our product candidates both in the United States and in selected foreign countries. While the scope of regulatory approvals generally is similar in other countries, in order to obtain separate regulatory approvals in other countries, we must comply with numerous and varying regulatory requirements of such countries regarding safety and efficacy. Other countries also have their own regulations governing, among other things, clinical trials and commercial sales, as well as pricing and distribution of our product candidates, and we may be required to expend significant resources to obtain regulatory approval and to comply with ongoing regulations in these jurisdictions.

The success of luvelta, STRO-001 and STRO-003 and our other future product candidates will depend on many factors, including the following:

•successful enrollment of patients in, and the completion of, our clinical trials;

•receiving required regulatory approvals for the development and commercialization of our product candidates;

•establishing our commercial manufacturing capabilities or making arrangements with third-party manufacturers;

•establishing successful technology transfers and collaborations to develop our product candidates with licensees, including our licensees with rights to luvelta and STRO-001 in Greater China;

•obtaining and maintaining patent, trademark and trade secret protection and non-patent exclusivity for our product candidates and their components;

•enforcing and defending our intellectual property rights and claims and avoiding or defending against intellectual property rights and claims from third parties;

•achieving desirable therapeutic properties for our product candidates' intended indications;

•launching commercial sales of our product candidates, if and when approved, whether alone or in collaboration with third parties;

•acceptance of our product candidates, if and when approved, by patients, the medical community and third-party payors;

•effectively competing with other therapies; and

•maintaining an acceptable safety profile of our product candidates through clinical trials and following regulatory approval.

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

Additionally, we have in the past and may in the future create benchmark molecules for comparative purposes. For example, we have created a benchmark FolRα targeting antibody-drug conjugate, or ADC, using conventional technology that results in a heterogeneous ADC mixture. We have compared luvelta to this benchmark molecule in multiple preclinical models. We believe the results of these tests help us understand how the therapeutic index of luvelta compares to competitors' product candidates. However, we cannot be certain that any benchmark molecule that we create is the same as the molecule we are attempting to recreate, and the results of the tests comparing any such benchmark molecule to any other potential or current product candidate may be different than the actual results of a head-to-head test of any such other potential or current product candidate against a competitor molecule. Additional preclinical and clinical testing will be needed to evaluate the therapeutic index of our potential or current product candidates, and to understand their therapeutic potential relative to other product candidates in development. While we believe our ADCs may be superior to other investigative agents in development, without head-to-head comparative data, we will not be able to make claims of superiority to other products in our promotional materials, if our product candidates are approved.

If we do not achieve our projected development goals in the time frames we anticipate and project, the commercialization of our products may be delayed and our stock price may decline.

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

For example, even with the approval of vaccines for COVID-19, the COVID-19 pandemic may further delay enrollment in trials due to prioritization of hospital resources toward the pandemic, restrictions on travel, and some patients may be unwilling to enroll in our trials or be unable to comply with clinical trial protocols if quarantines or travel restrictions impede

patient movement or interrupt healthcare services, which would delay our ability to conduct clinical trials or release clinical trial results.

Our approach to the discovery and development of our therapeutic treatments is based on novel technologies, including unprecedented Immunostimulatory Antibody Drug Conjugate, or iADC, and dual Antibody Drug Conjugates, or ADC^2 technology, that are unproven and may not result in marketable products.

We are developing a pipeline of product candidates using our proprietary XpressCF® and XpressCF+® platforms. We believe that product candidates identified with our product discovery platform may offer an improved therapeutic approach by taking advantage of precision design and rapid empirical optimization, thereby reducing the dose-limiting toxic effects associated with existing products. However, the scientific research that forms the basis of our efforts to develop product candidates based on our XpressCF® and XpressCF+® platforms is ongoing. Further, the scientific evidence to support the feasibility of developing therapeutic treatments based on our XpressCF® and XpressCF+® platforms is both preliminary and limited.

To date, we have tested our first clinical stage product candidates, luvelta and STRO-001, our former partner BMS has tested CC-99712, our partner Merck has tested MK-1484, and our partner EMD Serono has tested M1231 in a limited number of clinical trial patients. In addition, Vaxcyte has tested its lead product candidate, VAX-24, a 24-valent pneumococcal conjugate vaccine, in a limited number of clinical trial patients. We may ultimately discover that our XpressCF® and XpressCF+® platforms and any product candidates resulting therefrom do not possess certain properties required for therapeutic effectiveness. XpressCF® product candidates may also be unable to remain stable in the human body for the period of time required for the drug to reach the target tissue or they may trigger immune responses that inhibit the ability of the product candidate to reach the target tissue or that cause adverse side effects in humans. We currently have only limited data, and no conclusive evidence, to suggest that we can introduce these necessary properties into these product candidates derived from our XpressCF® and XpressCF+® platforms. We may spend substantial funds attempting to introduce these properties and may never succeed in doing so. In addition, product candidates based on our XpressCF® and XpressCF+® platforms may demonstrate different chemical and pharmacological properties in patients than they do in laboratory studies. Although our XpressCF® and XpressCF+® platforms and certain product candidates have produced successful results in animal studies, they may not demonstrate the same chemical and pharmacological properties in humans and may interact with human biological systems in unforeseen, ineffective or harmful ways. Further, in our oncology clinical trials to date, we have used achievement of stable disease as evidence for disease control (stable disease, partial response or complete response) by our product candidates; however, the FDA does not view stable disease as an objective response for the purposes of FDA approval.

We most recently presented updated data from the dose escalation portion of our STRO-001 Phase 1 trial in December 2020. As of October 30, 2020, most treatment emergent adverse events were grade 1 or 2, with the most common grade 1-2 treatment emergent adverse events, or TEAEs, of nausea, fatigue, chills, anemia, headache, dyspnea, abdominal pain, vomiting, decreased appetite and pyrexia, and no ocular or neuropathy toxicity signals have been observed. Two grade 3 and no grade 4 treatment emergent adverse events were observed, one instance each of anemia and dyspnea. Subsequent to a previously announced protocol amendment in 2019 requiring pre-treatment screening imaging for patients at risk for thromboses, no thromboembolic events have been observed. We have completed phase 1 dose escalation in the STRO-001 Phase 1 trial following identification of the maximum tolerated dose.

We presented updated data from the dose escalation portion of our luvelta Phase 1 trial in May 2021. Based on data from the trial through April 23, 2021, luvelta was generally well tolerated and was mostly associated with mild adverse events. Eighty-six percent (86%) of observed adverse events were grade 1 or grade 2. The most common Grade 3 and 4 TEAEs were reversible neutropenia (64%). Grade 3 arthralgia (13%), fatigue (10%), and neuropathy (8%) were observed and managed with standard medical treatment, including dose reductions or delays.

We released preliminary final results of the dose-expansion portion of our luvelta Phase 1 trial in January 2023 and updated results in June 2023. Safety signals from this portion of the trial were consistent with data from the dose-escalation cohort. Neutropenia was the leading TEAE that resulted in a treatment delay or dose reduction. Arthralgia was the second most common Grade 3+ TEAE and second most common TEAE leading to dose reduction. There were also limited observed cases of febrile neutropenia, including one Grade 5 event at the 5.2 mg/kg starting dose level and one Grade 3 event at the 4.3 mg/kg starting dose level. The trial protocol was subsequently updated to require dose reduction for Grade 4 neutropenia. We also initiated an exploratory cohort C to assess the safety of treatment with luvelta at 5.2 mg/kg in combination with prophylactic pegfilgrastim and presented preliminary data from ten patients from this cohort in January 2023.

If product candidates based on our XpressCF® and XpressCF+® platforms are unable to demonstrate sufficient safety and efficacy data to obtain marketing approval, we may never succeed in developing a marketable product, we may not become profitable and the value of our common stock will decline. The regulatory approval process for novel product candidates such as ours can be more expensive and take longer than for other, better known or extensively studied

product candidates. We are not aware of any company currently developing a therapeutic using our approach to ADC, iADC or ADC^2 development and no regulatory authority has granted approval for such a therapeutic. We believe the FDA has limited experience with therapeutics in oncology or other disease areas developed in cell-free-based synthesis systems, which may increase the complexity, uncertainty and length of the regulatory approval process for our product candidates. For example, our XpressCF® ADC product candidates contain cleavable or non-cleavable linker-warhead combinations or novel warheads that may result in unforeseen events when administered in a human. We and our existing or future collaborators may never receive approval to market and commercialize any product candidate. Even if we or an existing or future collaborator obtains regulatory approval, the approval may be for targets, disease indications or patient populations that are not as broad as we intended or desired or may require labeling that includes significant use or distribution restrictions or safety warnings. We or an existing or future collaborator may be required to perform additional or unanticipated clinical trials to obtain approval or be subject to post-marketing testing requirements to maintain regulatory approval. If the products resulting from our XpressCF® platform prove to be ineffective, unsafe or commercially unviable, our entire platform and pipeline would have little, if any, value, which would have a material and adverse effect on our business, financial condition, results of operations and prospects.

Results of preclinical studies and early clinical trials may not be predictive of results of future clinical trials.

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

In some instances, there can be significant variability in safety or efficacy results between different clinical trials of the same product candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the patient populations, changes in and adherence to the dosing regimen and other clinical trial protocols and the rate of dropout among clinical trial patients. In addition, results from compassionate use of our product candidates, such as luvelta to treat pediatric CFB/GLIS AML, my not be confirmed in Company-sponsored trials and/or may negatively impact the prospects for marketing approval for our product candidates. If we fail to receive positive results in clinical trials of our product candidates, the development timeline and regulatory approval and commercialization prospects for our most advanced product candidates, and, correspondingly, our business and financial prospects would be negatively impacted.

Interim, top-line, or preliminary data from our clinical trials that we announce may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we have publicly disclosed, and in the future will disclose, preliminary or top-line data from our preclinical studies and clinical trials, which are based on preliminary analyses of then-available data, and the results and related findings and conclusions are subject to change following a more comprehensive review of the data related to the particular study or trial. We also make assumptions, estimations, calculations, and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. Therefore, final results from the studies may differ from the top-line results initially reported, and the final results may indicate different conclusions once additional data have been evaluated. As such, top-line data should be viewed with caution until the final data are available. In addition, the information we choose to publicly disclose regarding a particular study or clinical trial is based on what is typically extensive data, and you or others may not agree with what we determine is material or otherwise appropriate information to include in our disclosure. If the final results differ from the interim, top-line, or preliminary data, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for, and to commercialize, our product candidates may be harmed, which may negatively affect our business, financial condition, results of operations, and prospects.

Moreover, from time to time, we have publicly disclosed, and in the future may disclose, interim data from our preclinical studies and clinical trials. Interim data from clinical trials that we may complete are subject to the risk that one or more of the outcomes may materially change as patient enrollment continues and more data become available. Adverse differences between top-line, preliminary, or interim data, on the one hand, and final data, on the other, could

significantly harm our business prospects. Further, disclosure of interim data by us or by our competitors could result in volatility in the price of our common stock.

Further, others, including regulatory agencies, may not accept or agree with our assumptions, estimates, calculations, conclusions, or analyses, or may interpret or weigh the importance of data differently, which could negatively affect the approvability or commercialization of the particular product candidate.

The market may not be receptive to our product candidates based on a novel therapeutic modality, and we may not generate any future revenue from the sale or licensing of product candidates.

Even if regulatory approval is obtained for a product candidate, we may not generate or sustain revenue from sales of the product due to factors such as whether the product can be sold at a competitive cost, competition in the therapeutic area(s) we have received or may receive approval for, and whether it will otherwise be accepted in the market. Historically, there have been concerns regarding the safety and efficacy of ADCs, and an ADC drug was voluntarily withdrawn from the market for an extended period of time. These historical concerns may negatively impact the perception market participants have on ADCs, including our product candidates. Additionally, the product candidates that we are developing are based on our proprietary XpressCF® and XpressCF+® platforms, which are new technologies. Market participants with significant influence over acceptance of new treatments, such as physicians and third-party payors, may not adopt an ADC product, or a product or treatment based on our novel cell-free production technologies, and we may not be able to convince the medical community and third-party payors to accept and use, or to provide favorable reimbursement for, any product candidates developed by us or our existing or future collaborators. Market acceptance of our product candidates will depend on, among other factors:

- the timing of our receipt of any marketing and commercialization approvals;
- the terms of any approvals and the countries in which approvals are obtained;
- the safety and efficacy of our product candidates;
- the prevalence and severity of any adverse side effects associated with our product candidates;
- limitations or warnings contained in any labeling approved by the FDA or other regulatory authority;
- relative convenience and ease of administration of our product candidates;
- the willingness of patients to accept any new methods of administration;
- the success of our physician education programs;
- the availability of coverage and adequate reimbursement from government and third-party payors;
- the pricing of our products, particularly as compared to alternative treatments; and
- the availability of alternative effective treatments for the disease indications our product candidates are intended to treat and the relative risks, benefits and costs of those treatments.

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

iADC and ADC^2 are novel technologies, which makes it difficult to predict the time, risks and cost of development and of subsequently obtaining regulatory approval of these potential product candidates.

Certain of our preclinical product candidates are based on our proprietary iADC and ADC^2 technology. Some of our future success depends on the successful development of this technology and products based on it. To our knowledge, no regulatory authority has granted approval to any person or entity, including us, to market and commercialize

therapeutics using our novel and unprecedented iADC or ADC^2 technology. We may never receive approval to market and commercialize any potential iADC or ADC^2 product candidate.

If we uncover any previously unknown risks related to our iADC and ADC^2 technology, or if we experience unanticipated or unsolvable problems or delays in developing our iADC or ADC^2 product candidates, we may be unable to complete our preclinical studies and clinical trials, meet the obligations of our collaboration and license agreements or commercialize our product candidates on a timely or profitable basis. If serious adverse events or unacceptable side effects are observed in preclinical studies or clinical trials of a product candidate based on our iADC or ADC^2 technology, or if iADCs or ADC^{2}s were shown to have limited efficacy, our ability to develop other product candidates based on our iADC or ADC^2 technology would be adversely affected.

We have entered, and may in the future seek to enter, into collaborations with third parties for the development and commercialization of our product candidates using our XpressCF® and XpressCF+® platforms. If we fail to enter into such collaborations, or such collaborations are not successful, we may not be able to capitalize on the market potential of our XpressCF® and XpressCF+® platforms and resulting product candidates.

Since 2014, we have entered into collaborations with Astellas Pharma Inc., or Astellas, Merck Sharp & Dohme LLC., a subsidiary of Merck & Co., Inc., or Merck, Celgene Corporation, or Celgene, a wholly owned subsidiary of Bristol Myers Squibb Company, or BMS, Merck KGaA, Darmstadt Germany (operating in the United States under the name “EMD Serono”, the biopharmaceutical business of Merck KGaA, Darmstadt, Germany in the US), BioNova Pharmaceuticals Limited, or BioNova, and Tasly Biopharmaceuticals Co., Ltd, or Tasly, to develop and commercialize certain cancer and other therapeutics. Our XpressCF® and XpressCF+® platforms have also supported a spin-out company, Vaxcyte Inc., focused on discovery and development of vaccines for the treatment and prophylaxis of infectious disease. In addition, we may in the future seek third-party collaborators for research, development and commercialization of other therapeutic technologies or product candidates. Biopharmaceutical companies are our prior and likely future collaborators for any marketing, distribution, development, licensing or broader collaboration arrangements. With respect to our existing collaboration agreements, and what we expect will be the case with any future collaboration agreements, we have and would expect to have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our product candidates. Moreover, our ability to generate revenues from these arrangements will depend on our collaborators’ abilities to successfully perform the functions assigned to them in these arrangements.

Collaborations involving our product candidates currently pose, and will continue to pose, the following risks to us:

•collaborators have significant discretion in determining the efforts and resources that they will apply to these collaborations;

•collaborators may not pursue development and commercialization of our product candidates or may elect not to continue or renew development or commercialization programs based on preclinical studies or clinical trial results, changes in the collaborators’ strategic focus or available funding, or external factors such as an acquisition that diverts resources or creates competing priorities;

•collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;

•collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our product candidates if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;

•collaborators with marketing and distribution rights to one or more products may not commit sufficient resources to the marketing and distribution of such product or products;

•collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to litigation or potential liability;

•collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;

•disputes may arise between the collaborators and us that result in the delay or termination of the research, development or commercialization of our product candidates or that result in costly litigation or arbitration that diverts management attention and resources; and

•collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates.

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

To date, no product developed on a cell-free manufacturing platform has received approval from the FDA, so the requirements for the manufacturing of products using our XpressCF® and XpressCF+® platforms are uncertain.

We have invested in our own current Good Manufacturing Practices, or cGMP, compliant manufacturing facility in San Carlos, California. In this facility, we are developing and implementing novel, proprietary cell-free production technologies to supply our planned preclinical and clinical trials. However, before we may initiate a clinical trial or commercialize any of our product candidates, we must demonstrate to the FDA that the chemistry, manufacturing and controls for our product candidates meet applicable requirements, and in the European Union, or EU, a manufacturing authorization must be obtained from the appropriate EU regulatory authorities. The FDA has allowed clinical trial use of our product candidates luvelta and STRO-001, and our former partner BMS's CC-99712 product candidate, and our partner EMD Serono's M1231 product candidate, and our partner Merck's MK-1484 product candidate, portions of which are manufactured in our San Carlos manufacturing facility; however, because no product manufactured on a cell-free manufacturing platform has yet been approved in the United States, there is no manufacturing facility that has demonstrated the ability to comply with FDA requirements for later stage clinical development or commercialization, and, therefore, the time frame for demonstrating compliance to the FDA's satisfaction is uncertain. Delays in establishing that our manufacturing process and facility comply with cGMPs or disruptions in our manufacturing processes, implementation of novel in-house technologies or scale-up activities, may delay or disrupt our development efforts.

We expect that development of our own manufacturing facility will provide us with enhanced control of material supply for preclinical studies, clinical trials and the commercial market, enable more rapid implementation of process changes and allow for better long-term margins. However, we have limited experience as a company in establishing and operating a manufacturing facility and there exist only a small number of contract manufacturing organizations, or CMOs, with the experience necessary to manufacture our product candidates. We may have difficulty hiring experts for internal manufacturing or finding and maintaining relationships with external CMOs and, accordingly, our production capacity could be limited.

We have initiated technology transfers to enable large scale manufacture of extract and the reagents necessary to manufacture our products using our XpressCF® and XpressCF+® platforms. These large scale technology transfers may fail or be delayed, resulting in impacts to our development timelines and the costs associated with manufacturing our development products.

Our existing collaborations with Astellas, Merck, Vaxcyte, BioNova and Tasly are important to our business. If our collaborators cease development efforts under our existing or future collaboration agreements, fail to fulfill their contract obligations, or if any of those agreements are terminated, these collaborations may fail to lead to commercial products and we may never receive milestone payments or future royalties under these agreements.

We have entered into collaborations with other biotechnology companies to develop or commercialize several of our product candidates, and such collaborations currently represent a significant portion of our product pipeline and discovery and preclinical programs. A substantial portion of our revenue to date has been derived from our collaboration agreements with Astellas, Merck, BMS, EMD Serono, Vaxcyte, BioNova, and Tasly, and a significant portion of our future revenue and cash resources is expected to be derived from some of these agreements, our royalty monetization agreement, or the Purchase Agreement, with an affiliate of Blackstone Life Sciences, or Blackstone, or other similar agreements into which we may enter in the future. Revenue from research and development collaborations depends upon continuation of the collaborations, payments for research and development and other services and product supply, and the achievement of milestones, contingent payments and royalties, if any, derived from future products developed from our research. If we are unable to successfully advance the development of our product candidates, achieve milestones or earn contingent payments under our collaboration agreements or royalty monetization agreement, future revenue and cash resources will be substantially less than expected.

We are unable to predict the success of our collaborations and we may not realize the anticipated benefits of our strategic collaborations. Our collaborators have discretion in determining and directing the efforts and resources, including the ability to discontinue all efforts and resources, they apply to the development and, if approval is obtained, commercialization and marketing of the product candidates covered by such collaborations. As a result, our collaborators may elect to de-prioritize our programs, change their strategic focus or pursue alternative technologies in a manner that results in reduced, delayed or no revenue to us. For example, in March 2023 , EMD Serono informed us of its decision to close the Phase 1a trial of M1231 in patients with solid tumors and not initiate a previously planned expansion study. EMD Serono stated that the decision was based on strategic portfolio considerations. In June 2023, BMS informed us of its decision to deprioritize the development of CC-99712 and end our collaboration agreement, which will lead to us having worldwide rights to this development candidate in October 2023. As with EMD Serono, BMS's decision was the result of a portfolio prioritization decision. Additionally, Merck initiated patient dosing in a Phase 1 clinical trial for MK-1484, a cytokine derivative of IL-2 discovered and developed under our collaboration, in July 2022. Merck has worldwide rights to MK-1484 and sole discretion in the clinical development and commercialization for this product candidate. In December 2021, Merck did not extend the research term for another target program of the collaboration and that program reverted to us. Our collaborators may have other marketed products and product candidates under collaboration with other companies, including some of our competitors, and their corporate objectives may not be consistent with our best interests. Our collaborators may also be unsuccessful in developing or commercializing our products. If our collaborations are unsuccessful, our business, financial condition, results of operations and prospects could be adversely affected. Our collaborators may fail to live up to the terms of their agreements with us, which would require us to seek to enforce our agreements in accordance with the dispute resolution procedures set forth therein. These procedures may require us to engage in litigation or arbitration to enforce our rights, which can be expensive, time-consuming and distracting to our management and Board of Directors. Further, the type and timing of resolution of such disputes are difficult to predict; and there is the potential that we could fail to enforce our rights either in part or in whole. Lastly, even if we successfully enforce our rights under our agreements with our collaborators, there is the possibility that we could fail to recover our expectancy following the litigation or arbitration, particularly for collaborators that are not subject to the jurisdiction of U.S. courts.

In addition, any dispute or litigation proceedings we may have with our collaborators in the future could delay development programs, reduce or eliminate potential milestone or other payments, create uncertainty as to ownership of intellectual property rights, distract management from other business activities and generate substantial expense. For example, in February 2022, Tasly indicated to us that it would like to discuss and renegotiate the terms of the Tasly License Agreement; and in April 2022, we entered into an amendment to the Tasly License Agreement amending the initial payment and certain milestone payments. If we encounter similar situations with Tasly or other collaboration partners, we may fail to recognize the expected future revenue and may be unable to collaborate under the terms of the applicable arrangement.

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

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

From time to time, we may consider strategic transactions, such as additional collaborations, acquisitions of companies, asset purchases or sales and out- or in-licensing of product candidates or technologies that we believe will complement or augment our existing business. In particular, we will evaluate and, if strategically attractive, seek to enter into additional collaborations, including with major biotechnology or biopharmaceutical companies. The competition for collaborators is intense, and the negotiation process is time-consuming and complex. Any new collaboration may be on terms that are not optimal for us, and we may not be able to maintain any new collaboration if, for example, development or approval of a product candidate is delayed, sales of an approved product candidate do not meet expectations, or the collaborator terminates the collaboration. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future strategic partners. Our ability to reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the strategic partner's resources and expertise, the terms and conditions of the proposed collaboration and the proposed strategic partner's evaluation of a number of factors. These factors may include the design or results of clinical trials, the likelihood of approval by the FDA or similar regulatory authorities outside the United States, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership, without regard to the merits of the challenge, and industry and market conditions generally. Moreover, if we acquire assets with promising markets or technologies, we may not be able to realize the benefit of acquiring such assets due to an inability to successfully integrate them with our

existing technologies and may encounter numerous difficulties in developing, manufacturing and marketing any new products resulting from a strategic acquisition that delay or prevent us from realizing their expected benefits or enhancing our business.

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

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

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

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

If we cannot contract with acceptable third parties on commercially reasonable terms, or at all, or if these third parties do not carry out their contractual duties, satisfy legal and regulatory requirements for the conduct of preclinical studies or clinical trials or meet expected deadlines, our clinical development programs could be delayed and otherwise adversely affected. In all events, we will be responsible for ensuring that each of our preclinical studies and clinical trials are conducted in accordance with the general investigational plan and protocols for the trial. The FDA requires preclinical studies to be conducted in accordance with good laboratory practices and clinical trials to be conducted in accordance with good clinical practices, including for designing, conducting, recording and reporting the results of preclinical studies and clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of clinical trial participants are protected. Our reliance on third parties that we do not control will not relieve us of these responsibilities and requirements. Any adverse development or delay in our preclinical studies or clinical trials as a result of our reliance on third parties could have a material and adverse effect on our business, financial condition, results of operations and prospects.

If we are unable to obtain sufficient raw and intermediate materials on a timely basis or if we experience other manufacturing or supply difficulties, our business may be adversely affected.

The manufacture of certain of our product candidates requires the timely delivery of sufficient amounts of raw and intermediate materials. We work closely with our suppliers to ensure the continuity of supply, but cannot guarantee these efforts will always be successful. Further, while efforts are made to diversify our sources of raw and intermediate materials, in certain instances we acquire raw and intermediate materials from a sole supplier. While we believe that alternative sources of supply exist where we rely on sole supplier relationships, there can be no assurance that we will be able to quickly establish additional or replacement sources for some materials. A reduction or interruption in supply, and an inability to develop alternative sources for such supply, could adversely affect our ability to manufacture our product candidates in a timely or cost-effective manner.

We currently manufacture a portion of our product candidates internally and also rely on third-party manufacturing and supply partners to supply components of our product candidates and materials used to manufacture our product candidates. Our inability to manufacture sufficient quantities of our product candidates, or the loss of our third-party suppliers, or our or their failure to comply with applicable regulatory requirements or to supply sufficient quantities at acceptable quality levels or prices, or at all, would materially and adversely affect our business.

Manufacturing is a vital component of our business strategy. To ensure timely and consistent product supply we currently use a hybrid product supply approach wherein certain elements of our product candidates are manufactured internally at our manufacturing facilities in San Carlos, California, and other elements are manufactured at qualified third-party CMOs. Since our own manufacturing facilities may be limited or unable to manufacture certain of our preclinical and clinical trial product materials and supplies, we rely on third-party contract manufacturers to manufacture such clinical trial product materials and supplies for our or our collaborator's needs. For example, we have entered into a manufacturing agreement with EMD Millipore Corporation to provide manufacturing services for certain linker-warhead materials used in our STRO-001 product candidate and to perform conjugation of the applicable linker-warhead with the antibody component of our luvelta and STRO-001 product candidates. We have also entered into agreements with Capua Bioservices, S.p.A. and with AGC Biologics GmbH for the manufacture of certain reagents used in the manufacture of our products with our XpressCF® and XpressCF+® platforms. There can be no assurance that our preclinical and clinical development product supplies will not be limited, interrupted, or of satisfactory quality or continue to be available at acceptable prices. In particular, any replacement of our manufacturer could require significant effort and expertise because there may be a limited number of qualified replacements. In addition, replacement of a manufacturer may require a technology transfer to the new manufacturer, which involves technical risk that the transfer may not succeed or may be delayed, and which can incur significant costs.

The manufacturing process for a product candidate is subject to FDA and foreign regulatory authority review. We, and our suppliers and manufacturers, must meet applicable manufacturing requirements and undergo rigorous facility and process validation tests required by regulatory authorities in order to comply with regulatory standards, such as cGMPs. If we or our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or comparable foreign regulatory authorities, we may not be able to rely on our or their manufacturing facilities for the manufacture of elements of our product candidates. Moreover, we do not control the manufacturing process at our contract manufacturers and are completely dependent on them for compliance with current regulatory requirements. In the event that any of our manufacturers fails to comply with such requirements or to perform its obligations in relation to quality, timing or otherwise, or if our supply of components or other materials becomes limited or interrupted for other reasons, we may be forced to manufacture the materials ourselves or enter into an agreement with another third party, which we may not be able to do on reasonable terms, if at all. In some cases, the technical skills or technology required to manufacture our product candidates may be unique or proprietary to the original manufacturer and we may have difficulty applying such skills or technology ourselves, or in transferring such to another third party. These factors would increase our reliance on such manufacturer or require us to obtain a license from such manufacturer in order to enable us, or to have another third party, manufacture our product candidates. If we are required to change manufacturers for any reason, we will be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards and with all applicable regulations and guidelines; and we may be required to repeat some of the development program. The delays associated with the verification of a new manufacturer could negatively affect our ability to develop product candidates in a timely manner or within budget.

We expect to continue to rely on third-party manufacturers if we receive regulatory approval for any product candidate. To the extent that we have existing, or enter into future, manufacturing arrangements with third parties, we will depend on these third parties to perform their obligations in a timely manner consistent with contractual and regulatory requirements, including those related to quality control and assurance. If we are unable to obtain or maintain third-party manufacturing for product candidates, or to do so on commercially reasonable terms, we may not be able to develop and commercialize our product candidates successfully. Our or a third party's failure to execute on our manufacturing requirements and comply with cGMPs could adversely affect our business in a number of ways, including:

•an inability to initiate or continue clinical trials of product candidates under development;

•delay in submitting regulatory applications, or receiving regulatory approvals, for product candidates;

•loss of an existing or future collaborator;

•losses resulting from an inability to utilize reserved manufacturing capacity because of delays or difficulties encountered in the supply chain;

•subjecting third-party manufacturing facilities or our manufacturing facilities to additional inspections by regulatory authorities;

•requirements to cease distribution or to recall batches of our product candidates; and

•in the event of approval to market and commercialize a product candidate, an inability to meet commercial demands for our products.

Additionally, we and our contract manufacturers may experience manufacturing difficulties due to resource constraints or as a result of labor disputes, unstable political environments, or epidemics, pandemics, or contagious diseases, such as the COVID-19 pandemic, or failures or delays in our manufacturing supply chain. For example, restrictions on travel imposed by governments, including China, or restrictions on person-in-plant permissions imposed by our contract manufacturers may limit the ability of our subject matter experts to visit our manufacturers and assist with technology transfers. If we or our contract manufacturers were to encounter interruptions from any of these events or other unforeseen events, our ability to provide our product candidates to patients in clinical trials, or to provide product for treatment of patients once approved, would be jeopardized.

We, or third-party manufacturers, may be unable to successfully scale-up manufacturing of our product candidates or materials used to manufacture components of our product candidates in sufficient quality and quantity, which would delay or prevent us from developing our product candidates and commercializing approved products, if any.

In order to conduct clinical trials of our product candidates, we will need to manufacture them in large quantities. We, or any manufacturing partners, may be unable to successfully increase the manufacturing capacity for any of our product candidates in a timely or cost-effective manner, or at all. In addition, quality issues may arise during scale-up activities. If we, or any manufacturing partners, are unable to successfully scale up the manufacture of our product candidates, or materials used in manufacturing components of our product candidates, in sufficient quality and quantity, the development, testing, and clinical trials of that product candidate may be delayed or infeasible, and regulatory approval or commercial launch of any resulting product may be delayed or not obtained, which could significantly harm our business.

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

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

Our product candidates are considered to be biologics and the process of manufacturing biologics and materials used to manufacture components of our products can be complex, time-consuming, highly regulated and subject to multiple risks. We and our contract manufacturers must comply with cGMPs, regulations and guidelines for the manufacturing of biologics used in clinical trials and, if approved, marketed products. To date, we and our contract manufacturers have limited experience in the manufacturing of cGMP batches of our product candidates and materials used to manufacture components of our product candidates.

Manufacturing biologics is highly susceptible to product loss due to contamination, equipment failure, improper installation or operation of equipment, vendor or operator error, inconsistency in yields, variability in product characteristics and difficulties in scaling the production process. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects and other supply disruptions. If microbial, viral or other contaminations are discovered at our manufacturing facilities or those of our third-party manufacturers, such facilities may need to be closed for an extended period of time to investigate and remedy the contamination, which could delay clinical trials and adversely harm our business. Moreover, if the FDA determines that our manufacturing facilities or those of our third-party manufacturers are not in compliance with FDA laws and regulations, including those governing cGMPs, the FDA may deny BLA approval until the deficiencies are corrected or we replace the manufacturer in our BLA with a manufacturer that is in compliance.

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

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

As part of our process development efforts, we also may make changes to our manufacturing processes at various points during development, for various reasons, such as controlling costs, achieving scale, decreasing processing time, increasing manufacturing success rate or other reasons. Such changes carry the risk that they will not achieve their intended objectives, and any of these changes could cause our product candidates to perform differently and affect the results of our ongoing clinical trials or future clinical trials. In some circumstances, changes in the manufacturing process may require us to perform *ex vivo* comparability studies and to collect additional data from patients prior to undertaking more advanced clinical trials. For instance, changes in our process during the course of clinical development may require us to show the comparability of the product used in earlier clinical phases or at earlier portions of a trial to the product used in later clinical phases or later portions of the trial.

We may not be successful in our efforts to use our XpressCF® and XpressCF+® platforms to expand our pipeline of product candidates and develop marketable products.

The success of our business depends in large part upon our ability to identify, develop and commercialize products based on our XpressCF® and XpressCF+® platforms. Luvelta is our most advanced clinical stage program and STRO-001 is our next most advanced clinical stage program, and our preclinical and research programs may fail to identify other potential product candidates for clinical development for a number of reasons. Our research methodology may be unsuccessful in identifying potential product candidates or our potential product candidates may be shown to have harmful side effects or may have other characteristics that may make the products unmarketable or unlikely to receive marketing approval. If any of these events occur, we may be forced to abandon our development efforts for a program or for multiple programs, which would materially harm our business and could potentially cause us to cease operations. Research programs to identify new product candidates require substantial technical, financial and human resources. We may focus our efforts and resources on potential programs or product candidates that ultimately prove to be unsuccessful.

We may expend our limited resources to pursue a particular product candidate and fail to capitalize on product candidates that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus our research and development efforts on certain selected product candidates. As a result, we may forgo or delay pursuit of opportunities with other product candidates that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable product candidates. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate. For example, in June 2023, we announced our Purchase Agreement with Blackstone.

Failure to successfully validate, develop and obtain regulatory approval for companion diagnostics for our product candidates could harm our drug development strategy and operational results.

If companion diagnostics are developed in conjunction with clinical programs, the FDA may require regulatory approval of a companion diagnostic as a condition to approval of the product candidate. For example, as we are developing luvelta for treatment of patients having ovarian cancer with elevated FolRα expression levels, we are likely to be required to obtain FDA approval or clearance of a companion diagnostic, concurrent with approval of luvelta, to test for elevated FolRα expression. We do not have experience or capabilities in developing or commercializing diagnostics and plan to rely in large part on third parties to perform these functions. We have entered into an agreement to develop diagnostic assays suitable for use as a companion diagnostic for luvelta. Companion diagnostics are subject to regulation by the FDA and foreign regulatory authorities as medical devices and require separate regulatory approval or clearance prior to commercialization. Similarly, if we use a diagnostic test to determine which patients are most likely to benefit from STRO-001 for the treatment of multiple myeloma and NHL by designing our pivotal trial or trials of STRO-001 in that indication to require that clinical trial patients have elevated CD74 expression as a criterion for enrollment, then we will likely be required to obtain FDA approval or clearance of a companion diagnostic, concurrent with approval of STRO-001, to test for elevated CD74 expression; we may also be required to demonstrate to the FDA the predictive utility of the companion diagnostic—namely, that the diagnostic selects for patients in whom the biologic therapy will be effective or more effective compared to patients not selected for by the diagnostic.

If we or our collaborators, or any third party, are unable to successfully develop companion diagnostics for our product candidates, or experience delays in doing so:

- the development of our product candidates may be adversely affected if we are unable to appropriately select patients for enrollment in our planned clinical trials;

- our product candidates may not receive marketing approval if their safe and effective use depends on a companion diagnostic; and

- we may not realize the full commercial potential of any product candidates that receive marketing approval if, among other reasons, we are unable to appropriately identify patients with the specific genetic alterations targeted by our product candidates.

In addition, although we believe genetic testing is becoming more prevalent in the diagnosis and treatment of various diseases and conditions, our product candidates may be perceived negatively compared to alternative treatments that do not require the use of companion diagnostics, either due to the additional cost of the companion diagnostic or the need to complete additional procedures to identify genetic markers prior to administering our product candidates. If any of these events were to occur, our business would be harmed, possibly materially.

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

The development and commercialization of drugs and therapeutic biologics is highly competitive. Our product candidates, if approved, will face significant competition and our failure to effectively compete may prevent us from achieving significant market penetration. Most of our competitors have significantly greater resources than we do and we may not be able to successfully compete. We compete with a variety of multinational biopharmaceutical companies, specialized biotechnology companies and emerging biotechnology companies, as well as with technologies and product candidates being developed at universities and other research institutions. Our competitors have developed, are developing or will develop product candidates and processes competitive with our product candidates and processes. Competitive therapeutic treatments include those that have already been approved and accepted by the medical community and any new treatments, including those based on novel technology platforms, that enter the market. We believe that a significant number of products are currently under development, and may become commercially available in the future, for the treatment of conditions for which we are trying, or may try, to develop product candidates. There is intense and rapidly evolving competition in the biotechnology, biopharmaceutical and antibody and immunoregulatory therapeutics fields. While we believe that our XpressCF® and XpressCF+® platforms, associated intellectual property and our scientific and technical know-how give us a competitive advantage in this space, competition from many sources exists or may arise in the future. Our competitors include larger and better funded biopharmaceutical, biotechnological and therapeutics companies, including companies focused on cancer immunotherapies, such as AstraZeneca PLC, BMS, GlaxoSmithKline PLC, Johnson & Johnson, Merck Sharp & Dohme LLC, Novartis AG, Pfizer Inc., or Pfizer, Roche Holding Ltd, Sanofi S.A., and companies focused on ADCs, such as BMS, Pfizer, GlaxoSmithKline PLC, Daiichi Sankyo Company, Limited, Eisai, Co., Ltd., ImmunoGen, Inc., Eli Lilly & Company, Pfizer, Exelixis, Inc., Seagen, Inc., Astellas Pharma Inc., Genentech, Inc., or Genentech, Gilead Sciences Inc., Mersana Therapeutics, Inc., and ADC Therapeutics

SA, as well as numerous small companies. Moreover, we also compete with current and future therapeutics developed at universities and other research institutions.

We are aware of several companies that are developing ADCs, cytokine derivatives, bispecific antibodies and cancer immunotherapies, including companies developing ADCs directed to the same target as luvelta. For example, Immunogen recently received approval for a folate receptor α targeted ADC, ELAHERE™. BMS and Eisai are also collaborating on development of a similarly targeted ADC, known as MORAb-202. Many of these companies are well-capitalized and, in contrast to us, have significant clinical experience, and may include our existing or future collaborators. In addition, these companies compete with us in recruiting scientific and managerial talent.

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

If our most advanced product candidates are approved, they will compete with a range of therapeutic treatments that are either in development or currently marketed. Currently marketed oncology therapeutics include a range of biologic modalities with the top selling products by class spanning tumor targeting monoclonal antibodies, such as Johnson & Johnson's Darzalex; to ADCs, such as Genentech's Kadcyla; to immune checkpoint inhibitors, such as Merck's Keytruda; to T cell-engager immunotherapies, such as Amgen, Inc.'s Blincyto; and to CAR-T cell therapies, such as Gilead's Yescarta. In addition, numerous compounds are in clinical development for cancer treatment. The clinical development pipeline for cancer includes small molecules, antibodies, vaccines, cell therapies and immunotherapies from a variety of companies and institutions.

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

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

We are highly dependent on the research and development, clinical development, manufacturing, and business development expertise of our management team, advisors and other specialized personnel. The loss of one or more members of our management team or other key employees or advisors could delay our research and development programs and have a material and adverse effect on our business, financial condition, results of operations and prospects. The relationships that our key managers have cultivated within our industry make us particularly dependent upon their continued employment with us. We are dependent on the continued service of our technical personnel because of the highly technical nature of our product candidates and XpressCF® and XpressCF+® platform technologies and the specialized nature of the regulatory approval process. Because our management team and key employees are not obligated to provide us with continued service, they could terminate their employment with us at any time without penalty. Our future success will depend in large part on our continued ability to attract and retain other highly qualified scientific, technical and management personnel, as well as personnel with expertise in clinical testing, manufacturing, governmental regulation and commercialization. We face competition for personnel from other companies, universities, public and private research institutions, government entities and other organizations. If we are unable to continue to attract and retain high-quality personnel, the rate and success at which we can discover and develop product candidates will be limited, which could have a material and adverse effect on our business, financial condition, results of operations and prospects.

We will need to grow our organization, and we may experience difficulties in managing our growth and expanding our operations.

As of June 30, 2023, we had 297 full-time employees. As our development and commercialization plans and strategies develop, we expect to expand our employee base for managerial, operational, financial and other resources. In addition, we have limited experience in product development and began our first clinical trials for our first two product candidates in 2018 and 2019. As our product candidates enter and advance through preclinical studies and clinical trials, we will need to expand our development, regulatory and manufacturing capabilities or contract with other organizations to provide these capabilities for us. In the future, we expect to have to manage additional relationships with collaborators or

partners, suppliers and other organizations. Our ability to manage our operations and future growth will require us to continue to improve our operational, financial and management controls, reporting systems and procedures. We may not be able to implement improvements to our management information and control systems in an efficient or timely manner and may discover deficiencies in existing systems and controls. Our inability to successfully manage our growth and expand our operations could have a material and adverse effect on our business, financial condition, results of operations and prospects.

If any of our product candidates are approved for marketing and commercialization and we are unable to develop sales, marketing and distribution capabilities on our own or enter into agreements with third parties to perform these functions on acceptable terms, we will be unable to commercialize successfully any such future products.

We currently have limited sales, marketing and distribution capabilities or experience. If any of our product candidates are approved, we will need to develop additional internal sales, marketing and distribution capabilities to commercialize such products, which would be expensive and time consuming, or enter into collaborations with third parties to perform these services. If we decide to market our products directly, we will need to commit significant financial and managerial resources to develop a marketing and sales force with technical expertise and supporting distribution, administration and compliance capabilities. If we rely on third parties with such capabilities to market our products or decide to co-promote products with collaborators, we will need to establish and maintain marketing and distribution arrangements with third parties, and there can be no assurance that we will be able to enter into such arrangements on acceptable terms or at all. In entering into third-party marketing or distribution arrangements, any revenue we receive will depend upon the efforts of the third parties and there can be no assurance that such third parties will establish adequate sales and distribution capabilities or be successful in gaining market acceptance of any approved product. If we are not successful in commercializing any product approved in the future, either on our own or through third parties, our business, financial condition, results of operations and prospects could be materially and adversely affected.

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

Our future growth may depend, in part, on our ability to develop and commercialize our product candidates in foreign markets, for which we may rely on collaboration with third parties. We are not permitted to market or promote any of our product candidates before we receive regulatory approval from the applicable regulatory authority in that foreign market, and may never receive such regulatory approval for any of our product candidates. To obtain separate regulatory approval in many other countries, we must comply with numerous and varying regulatory requirements of such countries regarding safety and efficacy and governing, among other things, clinical trials and commercial sales, pricing and distribution of our product candidates, and we cannot predict success in these jurisdictions. If we fail to comply with the regulatory requirements in international markets and do not receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of our product candidates will be harmed and our business will be adversely affected. We may not obtain foreign regulatory approvals on a timely basis, if at all. Our failure to obtain approval of any of our product candidates by regulatory authorities in another country may significantly diminish the commercial prospects of that product candidate and our business, financial condition, results of operations and prospects could be materially and adversely affected. Moreover, even if we obtain approval of our product candidates and ultimately commercialize our product candidates in foreign markets, we would be subject to the risks and uncertainties, including the burden of complying with complex and changing foreign regulatory, tax, accounting and legal requirements and reduced protection of intellectual property rights in some foreign countries.

Price controls imposed in foreign markets may adversely affect our future profitability.

In some countries, particularly member states of the EU, the pricing of prescription drugs is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after receipt of marketing approval for a product. In addition, there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various EU member states and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices. In some countries, we or current or future collaborators may be required to conduct a clinical trial or other studies that compare the cost-effectiveness of our therapeutic candidates to other available therapies in order to obtain or maintain reimbursement or pricing approval. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels within the country of publication and other countries. If reimbursement of any product candidate approved for marketing is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business, financial condition, results of operations and prospects could be materially and adversely affected.

Price controls imposed in the U.S. may affect our future profitability.

Recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in recent Executive Orders, several Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drug products. Current and future presidential budget proposals and future legislation may contain further drug price control measures that could be enacted. Congress and current and future U.S. presidential administrations may continue to seek new legislative and/or administrative measures to control drug costs. At the state level, legislatures are increasingly passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. If such pricing controls are enacted and are set at unsatisfactory levels, our business, financial condition, results of operations and prospects could be materially and adversely affected.

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

As we are conducting clinical trials of our product candidates, we may be exposed to significant product liability risks inherent in the development, testing, manufacturing and marketing of therapeutic treatments. Product liability claims could delay or prevent completion of our development programs. If we succeed in marketing products, such claims could result in an FDA investigation of the safety and effectiveness of our products, our manufacturing processes and facilities or our marketing programs and potentially a recall of our products or more serious enforcement action, limitations on the approved indications for which they may be used or suspension or withdrawal of approvals. Regardless of the merits or eventual outcome, liability claims may also result in decreased demand for our products, injury to our reputation, costs to defend the related litigation, a diversion of management's time and our resources, substantial monetary awards to trial participants or patients and a decline in our stock price. While we currently have product liability insurance that we believe is appropriate for our stage of development, we may need to obtain higher levels prior to later stages of clinical development or marketing any of our product candidates. Any insurance we have or may obtain may not provide sufficient coverage against potential liabilities. Furthermore, clinical trial and product liability insurance is becoming increasingly expensive. As a result, we may be unable to obtain sufficient insurance at a reasonable cost to protect us against losses caused by product liability claims that could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

As with all companies, we are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with FDA regulations, provide accurate information to the FDA, comply with manufacturing standards we may establish, comply with federal and state healthcare fraud and abuse laws and regulations, inappropriately share confidential and proprietary information externally, report financial information or data accurately or disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a material and adverse effect on our business, financial condition, results of operations and prospects, including the imposition of significant civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, the curtailment or restructuring of our operations, loss of eligibility to obtain approvals from the FDA, exclusion from participation in government contracting, healthcare reimbursement or other government programs, including Medicare and Medicaid, integrity oversight and reporting obligations, or reputational harm.

Moreover, our employees are increasingly utilizing social media tools and our website as a means of communication. Despite our efforts to monitor social media communications, there is risk that the unauthorized use of social media by our employees to communicate about our products or business, or any inadvertent disclosure of material, nonpublic information through these means, may result in violations of applicable laws and regulations, which may give rise to liability and result in harm to our business. In addition, there is also risk of inappropriate disclosure of sensitive information, which could result in significant legal and financial exposure and reputational damages that could potentially have a material adverse impact on our business, financial condition, results of operations and prospects.

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

We collect and maintain information in digital form that is necessary to conduct our business, and we are increasingly dependent on information technology systems and infrastructure to operate our business. In the ordinary course of our business, we collect, store and transmit large amounts of confidential information, including intellectual property, proprietary business information health information, and personal information. We have established physical, electronic and organizational measures designed to safeguard and secure our systems to prevent a data security incident (which may include, for example: data breaches, viruses or other malicious code, coordinated attacks, data loss, phishing attacks, ransomware, denial of service attacks, or other security or information technology incidents caused by threat actors, technological vulnerabilities or human error), and rely on commercially available systems, software, tools, and monitoring to provide security for our information technology systems and the processing, transmission and storage of digital information. We have also outsourced elements of our information technology infrastructure, and as a result, a number of third-party vendors may or could have access to our confidential information. Our internal information technology systems and infrastructure, and those of our current and any future collaborators, CROs, third-party vendors, contractors and consultants and other third parties on which we rely, are vulnerable to damage from computer viruses, malware, natural disasters, terrorism, war, telecommunication and electrical failures, cyber-attacks or cyber-intrusions over the internet, attachments to emails, persons inside our organization, or persons with access to systems inside our organization.

The risk of a security breach or disruption or data loss, particularly through cyber-attacks or cyber intrusion, including by computer hackers, foreign governments and cyber terrorists, has generally increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. In addition, the prevalent use of mobile devices that access confidential information increases the risk of data security breaches, which could lead to the loss of confidential information or other intellectual property. The costs to us or our CROs or other contractors or consultants we may utilize to mitigate a data security incident and security vulnerabilities could be significant, and while we have implemented security measures designed to protect our data security and information technology systems, our efforts to address these problems may not be successful, and these problems could result in unexpected interruptions, delays, cessation of service and other harm to our business and our competitive position. We have incurred successful phishing attempts in the past, although we believe that these attempts were detected and neutralized without any compromise to our data and prior to any significant impact to our business. We have also implemented measures to prevent such attacks, but we may still be subject to similar attacks in the future. We are also aware of publicly disclosed security breaches at certain third parties on which we rely. If such an event were to occur, whether to us or a third party on which we rely, and cause interruptions in our operations, it could result in a material disruption of our product development programs. For example, the loss of clinical trial data from completed or ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Further, if we are unable to generate or maintain access to essential patient samples or data for our research and development and manufacturing activities for our programs, our business could be materially adversely affected.

Moreover, if a computer security breach affects our systems or results in the unauthorized release of personally identifiable information, our reputation could be materially damaged. Such a breach may require notification to governmental agencies, the media or individuals pursuant to various federal and state privacy and security laws, such as the Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and its implementing rules and regulations, regulations promulgated by the Federal Trade Commission and state breach notification laws. We also may be subject to European privacy laws, such as the General Data Protection Regulation, or GDPR. We would also be exposed to a risk of loss or litigation and potential liability under laws, regulations and contracts that protect the privacy and security of personal information that may result in regulatory scrutiny, fines, private right of action settlements, and other consequences. Compliance with these and any other applicable privacy and data security laws and regulations is a rigorous and time-intensive process, and we may be required to put in place additional mechanisms ensuring compliance with the new data protection rules and possible government oversight. Our failure to comply with such laws or to

adequately secure the information we hold could result in significant liability or reputational harm and, in turn, a material adverse effect on our client base, member base and revenue.

Our information technology systems could face serious disruptions that could adversely affect our business.

Our information technology and other internal infrastructure systems, including corporate firewalls, servers, leased lines, and connection to the Internet, face the risk of systemic failure that could disrupt our operations. A significant disruption in the availability of our information technology and other internal infrastructure systems could cause interruptions and delays in our research and development and manufacturing work.

In addition, a significant percentage of our employees work remotely from time to time, which presents certain risks to our business. For example, remote work presents significant demands on our information technology resources and systems and can be at risk for phishing and other malicious activity, which can result in an increase to the number of points of potential exposure, such as laptops and mobile devices, that need to be secured. Any failure to effectively manage these risks, including to timely identify and appropriately respond to any security incidents, may adversely affect our business.

The terms of our Loan and Security Agreement require us to meet certain covenants and place restrictions on our operating and financial flexibility. If we raise additional capital through debt financing, the terms of any new debt could further restrict our ability to operate our business.

The Loan and Security Agreement is secured by a lien covering all of our assets, excluding our intellectual property. Subject to the terms of the Loan and Security Agreement, we have the option to prepay all, but not less than all, of the amounts borrowed under the Loan and Security Agreement, subject to certain penalty payments, prior to the March 1, 2024, maturity date, at which time all amounts borrowed will be due and payable.

The Loan and Security Agreement contains customary affirmative and negative covenants, indemnification provisions and events of default. The affirmative covenants include, among others, covenants requiring us to maintain our legal existence and governmental approvals, deliver certain financial reports and maintain certain intellectual property rights. The negative covenants include, among others, restrictions on transferring or licensing our assets, changing our business, incurring additional indebtedness, engaging in mergers or acquisitions, paying dividends or making other distributions, and creating other liens on our assets, in each case subject to customary exceptions. If we default under the Loan and Security Agreement, the lenders will be able to declare all obligations immediately due and payable and take control of our collateral, potentially requiring us to renegotiate our agreement on terms less favorable to us or to immediately cease operations. The Loan and Security Agreement previously included a covenant requiring us to keep substantially all of our cash and investments with SVB, the substantial majority of which was held in a custodial account with another institution, for which SVB Asset Management was the advisor. In March and April 2023, we amended our Loan and Security Agreement to allow us to hold cash and investments at multiple financial institutions. Further, if we are liquidated, the rights of Oxford and SVB to repayment would be senior to the rights of the holders of our common stock to receive any proceeds from the liquidation. Oxford, acting as collateral agent for the lenders, could declare a default under the Loan and Security Agreement upon the occurrence of any event that Oxford and SVB interpret as a material adverse change as defined under the Loan and Security Agreement, thereby requiring us to repay the loan immediately or to attempt to reverse the declaration of default through negotiation or litigation. Any declaration by the collateral agent of an event of default could significantly harm our business, financial condition, results of operations and prospects and could cause the price of our common stock to decline. If we raise any additional debt financing, the terms of such additional debt could further restrict our operating and financial flexibility.

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

Our research, development and manufacturing involve the use of hazardous chemicals and materials, including radioactive materials. We maintain quantities of various flammable and toxic chemicals in our facilities in South San Francisco and San Carlos, California that are required for our research, development and manufacturing activities. We are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of these hazardous chemicals and materials. We believe our procedures for storing, handling and disposing these materials in our South San Francisco and San Carlos facilities comply with the relevant guidelines of the two municipalities, the county of San Mateo, the state of California and the Occupational Safety and Health Administration of the U.S. Department of Labor. Although we believe that our safety procedures for handling and disposing of these materials comply with the standards mandated by applicable regulations, including employee and contractor training and procedures regarding safe handling and disposal, the risk of accidental or mistaken contamination or injury from these materials cannot be eliminated. If an accident occurs, we could be held liable for resulting damages, which could be substantial. We are also subject to numerous environmental, health and workplace safety laws and regulations, including those governing laboratory procedures, exposure to blood-borne pathogens and the handling of animals and

biohazardous materials. Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of these materials or from other hazards potentially present in our workplaces, such as high voltage electricity, process steam or other hot material, liquid nitrogen or other cold material, materials stored under pressure, laboratory instruments that incorporate powerful lasers or magnets, sonic resonance, heavy machinery, and the like, this insurance may not provide adequate coverage against potential liabilities. While we maintain pollution legal liability insurance for our manufacturing facility in San Carlos, California, we do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological or hazardous materials in our other locations. Additional federal, state and local laws and regulations affecting our operations may be adopted in the future. We may incur substantial costs to comply with, and substantial fines or penalties if we violate, any of these laws or regulations.

Our current operations are in two cities in the San Francisco Bay Area, and we, or the third parties upon whom we depend, may be adversely affected by earthquakes, other natural disasters, pandemics, including any significant resurgence of the COVID-19 pandemic, or other catastrophic events and our business continuity and disaster recovery plans may not adequately protect us from a serious disaster.

Our current operations are located in our facilities in South San Francisco and San Carlos, California. Any unplanned event, such as earthquake, flood, fire, explosion, extreme weather condition, epidemic, pandemic or contagious disease, power shortage, telecommunication failure or other natural or man-made accidents or incidents that result in us being unable to fully utilize our facilities, or the manufacturing facilities of our third-party contract manufacturers, may have a material and adverse effect on our ability to operate our business, particularly on a daily basis, and have significant negative consequences on our financial and operating conditions. Loss of access to these facilities may result in increased costs, delays in the development of our product candidates or interruption of our business operations. Earthquakes, epidemics, pandemics or contagious diseases, or other natural disasters could further disrupt our operations, and have a material and adverse effect on our business, financial condition, results of operations and prospects. If a natural disaster, power outage, epidemics, pandemics or contagious disease, or other events occurred that prevented us from using all or a significant portion of our headquarters, that damaged critical infrastructure, such as our research or manufacturing facilities or the manufacturing facilities of our third-party contract manufacturers, or that otherwise disrupted operations, it may be difficult or, in certain cases, impossible, for us to continue our business for a substantial period of time. The disaster recovery and business continuity plans we have in place may prove inadequate in the event of a serious disaster or similar event. We may incur substantial expenses as a result of the limited nature of our disaster recovery and business continuity plans, which could have a material adverse effect on our business. As part of our risk management policy, we maintain insurance coverage at levels that we believe are appropriate for our business. However, in the event of an accident or incident at these facilities, we cannot assure you that the amounts of insurance will be sufficient to satisfy any damages and losses. In addition, the long-term effects of climate change on general economic conditions and the pharmaceutical industry in particular are unclear, and may heighten or intensify existing risk of natural disasters. If our facilities, or the manufacturing facilities of our third-party contract manufacturers, are unable to operate because of an accident or incident or for any other reason, even for a short period of time, any or all of our research and development programs may be harmed. Any business interruption could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Changes in tax laws or regulations that are applied adversely to us or our customers may have a material adverse effect on our business, cash flows, financial condition or results of operations.

New income, sales, use or other tax laws, statutes, rules, regulations or ordinances could be enacted at any time, which could adversely affect our business and financial condition. Further, existing tax laws, statutes, rules, regulations or ordinances could be interpreted, changed, modified or applied adversely to us. For example, legislation enacted in 2017, informally titled the Tax Cuts and Jobs Act, or the 2017 Tax Act, enacted many significant changes to the U.S. tax laws. Future guidance from the Internal Revenue Service and other tax authorities with respect to the 2017 Tax Act may affect us, and certain aspects of the 2017 Tax Act may be repealed or modified in future legislation. For example, the Coronavirus Aid, Relief, and Economic Security Act, or the CARES Act, modified certain provisions of the 2017 Tax Act. Beginning in 2022, the 2017 Tax Act eliminates the option to currently deduct research and development expenditures and requires taxpayers to capitalize and amortize U.S. based and non-U.S. based research and development expenditures over five and fifteen years, respectively, pursuant to IRC Section 174. We cannot predict whether, when, in what form, or with what effective dates, tax laws, regulations and rulings may be enacted, promulgated or issued, which could result in an increase in our or our stockholders' tax liability or require changes in the manner in which we operate in order to minimize or mitigate any adverse effects of changes in tax law. Changes in corporate tax rates, the realization of net deferred tax assets relating to our operations, and the deductibility of expenses under the 2017 Tax Act or future reform legislation could have a material impact on the value of our deferred tax assets, could result in significant one-time charges, and could increase our future U.S. tax expense.

Our ability to use net operating loss carryforwards to offset taxable income could be limited.

Our net operating loss carryforwards generated in tax years ending on or prior to December 31, 2017, are only permitted to be carried forward for 20 years under applicable U.S. tax law. Under the 2017 Tax Act, as modified by the CARES Act, our federal net operating losses generated in tax years beginning after December 31, 2017, may be carried forward indefinitely, but the deductibility of such federal net operating losses, is limited to 80% of taxable income.

In addition, under Section 382 of the U.S. Internal Revenue Code of 1986, as amended, and corresponding provisions of state law, if we experience an "ownership change" which is generally defined as a greater than 50% change, by value, in its equity ownership over a three-year period, our ability to use our pre-change net operating loss carryforwards to offset our post-change income may be limited. Based on Section 382 studies performed for certain prior periods, it is more likely than not that we experienced an ownership change on November 20, 2019 and December 31, 2022, which imposed limitations on the use of our net operating losses arising before that date. In addition, we may have experienced other ownership changes in the past and may also experience ownership changes in the future as a result of equity offerings or other shifts in our stock ownership, some of which are outside our control. As a result, our use of federal NOL carryforwards could be limited. State net operating loss carryforwards may be similarly limited. In addition, at the state level, there may be periods during which the use of net operating losses is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed. Any such limitations may result in greater tax liabilities than we would incur in the absence of such limitations and any increased liabilities could adversely affect our business, results of operations, financial position and cash flows.

Our investment in Vaxcyte is subject to risk

As of June 30, 2023, we held Vaxcyte common stock with a fair value of $33.3 million. Vaxcyte common stock is publicly traded and therefore subject to the various risk factors associated with any publicly traded company, including risks associated with Vaxcyte's business, its business outlook, cash flow requirements and financial performance, the state of the market and the general economic climate, including the impact of health pandemics, geopolitical conflicts, rising interest rates, and inflation. Vaxcyte common stock has been subject to substantial volatility, and the change in fair value of our interests in Vaxcyte will materially impact our reported net income or net loss in our financial statements.

Our cash and investments could be adversely affected if the financial institutions in which we hold our cash and investments fail.

We regularly maintain cash balances at third-party financial institutions in excess of the FDIC insurance limit and similar regulatory insurance limits outside the United States and governments may not guarantee all depositors if such financial institutions were to fail, as the U.S. government did with SVB depositors, in the event of further bank closures and continued instability in the global banking system. Any future adverse developments in the global banking system could directly or indirectly negatively impact our business, financial condition, results of operations and prospects. Further, if we enter into a credit, loan or other similar facility with a financial institution, certain covenants included in such facility may require as security that we keep a significant portion of our cash with the institution providing such facility. If a depository institution where we maintain deposits fails or is subject to adverse conditions in the financial or credit markets, we may not be able to recover all, if any, of our deposits, which could adversely impact our operating liquidity and financial performance.

Our financial results may be adversely affected by changes in accounting principles generally accepted in the United States.

Generally accepted accounting principles in the United States, or U.S. GAAP, are subject to interpretation by the Financial Accounting Standards Board, or the FASB, the American Institute of Certified Public Accountants, the SEC and various bodies formed to promulgate and interpret appropriate accounting principles. For example, in May 2014, the FASB issued accounting standards update No. 2014-09 (Topic 606), Revenue from Contracts with Customers, which supersedes nearly all existing revenue recognition guidance under U.S. GAAP. We adopted this new accounting standard as of January 1, 2019. Any difficulties in implementing this guidance could cause us to fail to meet our financial reporting obligations, which could result in regulatory discipline and harm investors' confidence in us. Additionally, the implementation of this guidance or a change in other principles or interpretations could have a significant effect on our financial results, and could affect the reporting of transactions completed before the announcement of a change. Furthermore, we have adopted Topic 606 through the modified retrospective method. This will impact the comparability of our financial results, which might lead investors to draw incorrect conclusions that could harm investor interest in holding or purchasing our equity.

Risks Related to Intellectual Property

If we are not able to obtain, maintain and enforce sufficient patent and other intellectual property protection for our technologies or product candidates, development and commercialization of our product candidates may be adversely affected.

Our success depends in part on our, our licensor's and our collaborators' ability to obtain and maintain patents and other forms of intellectual property rights, including in-licenses of intellectual property rights of others, for our product candidates, methods used to manufacture our product candidates and methods for treating patients using our product candidates, as well as our ability to preserve our trade secrets, to prevent third parties from infringing upon our proprietary rights and to operate without infringing upon the proprietary rights of others. We, our licensors and collaborators may not be able to apply for patents on certain aspects of our product candidates in a timely fashion or at all. Further, we, our licensors and collaborators may not be able to prosecute all necessary or desirable patent applications, or maintain, enforce and license any patents that may issue from such patent applications, at a reasonable cost or in a timely manner. It is also possible that we, our licensors and collaborators will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. It is also possible that we, our licensors, and our collaborators will fail to file patent applications covering inventions made in the course of development and commercialization activities before a competitor or another third party files a patent application covering, or publishes information disclosing, a similar, independently-developed invention. Such competitor's patent application may pose obstacles to our ability to obtain or limit the scope of patent protection we may obtain. We may not have the right to control the preparation, filing and prosecution of all patent applications that we license from third parties, or to maintain the rights to patents licensed to third parties. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. If our licensors or collaborators fail to establish, maintain or protect such patents and other intellectual property rights, such rights may be reduced or eliminated. If our licensors, licensees or collaborators are not fully cooperative or disagree with us as to the prosecution, maintenance or enforcement of any patent rights, such patent rights could be compromised. Also, although we enter into non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development output, such as our employees, collaborators, CROs, contract manufacturers, consultants, advisors and other third parties, any of these parties may breach the agreements and disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection. In addition, publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot be certain that we, our licensors or collaborators were the first to make the inventions claimed in our patents or pending patent applications, or were the first to file for patent protection of such inventions, or if such patents rights may otherwise become invalid. Composition of matter patents for biological and pharmaceutical therapeutic candidates often provide a strong form of intellectual property protection for those types of products, as such patents provide protection without regard to any method of use. We cannot be certain that the claims in our pending patent applications directed to composition of matter of our therapeutic candidates will be considered patentable by the United States Patent and Trademark Office (USPTO) or by patent offices in foreign countries, or that the claims in any of our issued patents will be considered valid and enforceable by courts in the United States or foreign countries. Method of use patents protect the use of a product for the specified method. This type of patent does not prevent a competitor from making and marketing a product that is identical to our therapeutics for an indication that is outside the scope of the patented method. Moreover, even if competitors do not actively promote their product for our targeted indications, clinicians may prescribe these products "off-label." Although off-label prescriptions may infringe or contribute to the infringement of method of use patents, the practice is common and such infringement is difficult to prevent or prosecute. Our existing issued and granted patents and any future patents we obtain may not be sufficiently broad to prevent others from using our technology or from developing competing products and technology. There is no guarantee that any of our pending patent applications will result in issued or granted patents, that any of our issued or granted patents will not later be found to be invalid or unenforceable or that any issued or granted patents will include claims that are sufficiently broad to cover our product candidates or to provide meaningful protection from our competitors. Moreover, the patent position of biotechnology and biopharmaceutical companies can be highly uncertain because it involves complex legal and factual questions. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our current and future proprietary technology and product candidates are covered by valid and enforceable patents or are effectively maintained as trade secrets. If third parties disclose or misappropriate our proprietary rights, it may materially and adversely affect our position in the market.

The U.S. Patent and Trademark Office, or USPTO, and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process. There are situations in which noncompliance can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors might be able to enter the market earlier than would otherwise have been the case. The standards applied by the USPTO and foreign patent offices in granting patents are not always applied uniformly or predictably. For example, there is no uniform worldwide policy regarding patentable subject matter or the scope of claims allowable in biotechnology and biopharmaceutical patents. As such, we do not know the degree of future protection that we will have on our proprietary products and technology. While we will endeavor to try to protect our product candidates with intellectual property rights such as patents, as appropriate, the process of obtaining patents is time consuming, expensive and sometimes unpredictable.

Once granted, patents may remain open to opposition, interference, re-examination, post-grant review, *inter partes* review, nullification or derivation action in court or before patent offices or similar proceedings for a given period after allowance or grant, during which time third parties can raise objections against such initial grant. In the course of such proceedings, which may continue for a protracted period of time, the patent owner may be compelled to limit the scope of the allowed or granted claims thus attacked, or may lose the allowed or granted claims altogether. In addition, there can be no assurance that:

- others will not or may not be able to make, use or sell compounds that are the same as or similar to our product candidates but that are not covered by the claims of the patents that we own or license;
- we or our licensors, or our existing or future collaborators are the first to make the inventions covered by each of our issued patents and pending patent applications that we own or license;
- we or our licensors, or our existing or future collaborators are the first to file patent applications covering certain aspects of our inventions;
- others will not independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- a third party may not challenge our patents and, if challenged, a court would hold that our patents are valid, enforceable and infringed;
- any issued patents that we own or have licensed will provide us with any competitive advantages, or will not be challenged by third parties;
- we may develop additional proprietary technologies that are patentable;
- the patents of others will not have a material or adverse effect on our business, financial condition, results of operations and prospects; and
- our competitors may conduct research and development activities in countries where we do not have enforceable patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets.

If we or our licensors or collaborators fail to maintain the patents and patent applications covering our product candidates, our competitors might be able to enter the market, which could have a material and adverse effect on our business, financial condition, results of operations and prospects.

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

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

In addition to seeking patent protection for certain aspects of our product candidates, we also consider trade secrets, including confidential and unpatented know-how important to the maintenance of our competitive position. We protect trade secrets and confidential and unpatented know-how, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to such knowledge, such as our employees, corporate collaborators, outside scientific collaborators, CROs, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants that obligate them to maintain confidentiality and assign their inventions to us. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts in the United States and certain foreign jurisdictions are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, our competitive position would be harmed which could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Other companies or organizations may challenge our or our licensors' patent rights or may assert patent rights that prevent us from developing and commercializing our products.

Therapeutics in oncology or other disease areas developed in cell-free-based synthesis systems are a relatively new scientific field. We have obtained grants and issuances of, and have obtained a license from a third party on an exclusive basis to, patents related to our proprietary XpressCF® and XpressCF+® platforms. The issued patents and pending patent applications in the United States and in key markets around the world that we own or license claim many different methods, compositions and processes relating to the discovery, development, manufacture and commercialization of antibody-based and other therapeutics.

As the field of antibody-based therapeutics continues to mature, patent applications are being processed by national patent offices around the world. There is uncertainty about which patents will issue and, if they do, as to when, to whom, and with what claims. In addition, third parties may attempt to invalidate our intellectual property rights. Even if our rights are not directly challenged, disputes could lead to the weakening of our intellectual property rights. Our defense against any attempt by third parties to circumvent or invalidate our intellectual property rights could be costly to us, could require significant time and attention of our management and could have a material and adverse effect on our business, financial condition, results of operations and prospects or our ability to successfully compete.

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

Obtaining a valid and enforceable issued or granted patent covering our technology in the United States and worldwide can be extremely costly, and our or our licensors' or collaborators' intellectual property rights may not exist in some countries outside the United States or may be less extensive in some countries than in the United States. In jurisdictions where we or our licensors or collaborators have not obtained patent protection, competitors may seek to use our or their technology to develop their own products and further, may export otherwise infringing products to territories where we or they have patent protection, but where it is more difficult to enforce a patent as compared to the United States. Competitor products may compete with our future products in jurisdictions where we do not have issued or granted patents or where our or our licensors' or collaborators' issued or granted patent claims or other intellectual property rights are not sufficient to prevent competitor activities in these jurisdictions. The legal systems of certain countries, particularly certain developing countries, make it difficult to enforce patents and such countries may not recognize other types of intellectual property protection, particularly relating to biopharmaceuticals. This could make it difficult for us or our licensors or collaborators to prevent the infringement of our or their patents or marketing of competing products in violation of our or their proprietary rights generally in certain jurisdictions. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our and our licensors' or collaborators' efforts and attention from other aspects of our business, could put our and our licensors' or collaborators' patents at risk of being invalidated or interpreted narrowly and our and our licensors' or collaborators' patent applications at risk of not issuing and could provoke third parties to assert claims against us or our licensors or collaborators. We or our licensors or collaborators may not prevail in any lawsuits that we or our licensors or collaborators initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful.

We generally file a provisional patent application first (a priority filing) at the USPTO. An international application under the Patent Cooperation Treaty, PCT, is usually filed within twelve months after the priority filing. Based on the PCT filing, national and regional patent applications may be filed in the United States, EU, Japan, Australia and Canada and, depending on the individual case, also in any or all of, inter alia, Brazil, China, Hong Kong, India, Israel, Mexico, New

Zealand, South Africa, South Korea and other jurisdictions. We have so far not filed for patent protection in all national and regional jurisdictions where such protection may be available. In addition, we may decide to abandon national and regional patent applications before grant. Finally, the grant proceeding of each national or regional patent is an independent proceeding which may lead to situations in which applications might in some jurisdictions be refused by the relevant registration authorities, while granted by others. It is also quite common that depending on the country, various scopes of patent protection may be granted on the same product candidate or technology.

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

The laws of some jurisdictions do not protect intellectual property rights to the same extent as the laws in the United States, and many companies have encountered significant difficulties in protecting and defending such rights in such jurisdictions. If we or our licensors or collaborators encounter difficulties in protecting, or are otherwise precluded from effectively protecting, the intellectual property rights important for our business in such jurisdictions, the value of these rights may be diminished and we may face additional competition from others in those jurisdictions. Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we or any of our licensors or collaborators are forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position in the relevant jurisdiction may be impaired and our business, financial condition, results of operations and prospects may be adversely affected.

No earlier than June 1, 2023, European applications will soon have the option, upon grant of a patent, of becoming a Unitary Patent which will be subject to the jurisdiction of the Unitary Patent Court ("UPC). This will be a significant change in European patent practice. As the UPC is a new court system, there is no precedent for the court, increasing the uncertainty of any litigation.

We, our licensors or collaborators, or any future strategic partners may need to resort to litigation to protect or enforce our patents or other proprietary rights, all of which could be costly, time consuming, delay or prevent the development and commercialization of our product candidates, or put our patents and other proprietary rights at risk.

Competitors may infringe our patents or other intellectual property. If we were to initiate legal proceedings against a third party to enforce a patent covering one of our products or our technology, the defendant could counterclaim that our patent is invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, for example, lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that an individual connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. The outcome following legal assertions of invalidity and unenforceability during patent litigation is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on one or more of our products or certain aspects of our platform technology. Such a loss of patent protection could have a material and adverse effect on our business, financial condition, results of operations and prospects. Interference or derivation proceedings provoked by third parties or brought by us or declared by the USPTO may be necessary to determine the priority of inventions with respect to our patents or patent applications. An unfavorable outcome could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms or at all, or if a non-exclusive license is offered and our competitors gain access to the same technology. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions, or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of our common stock. Patents and other intellectual property rights also will not protect our technology if competitors design around our protected technology without legally infringing our patents or other intellectual property rights.

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

As the biopharmaceutical industry expands and more patents are issued, the risk increases that our product candidates may be subject to claims of infringement of the patent rights of third parties. There can be no assurance that our operations do not, or will not in the future, infringe existing or future third-party patents. Identification of third-party patent rights that may be relevant to our operations is difficult because patent searching is imperfect due to differences in terminology among patents, incomplete databases and the difficulty in assessing the meaning of patent claims. We cannot guarantee that any of our patent searches or analyses, including the identification of relevant patents, the scope of patent claims or the expiration of relevant patents, are complete or thorough, nor can we be certain that we have identified each and every third-party patent and pending application in the United States and abroad that is relevant to or necessary for the commercialization of our therapeutic candidates in any jurisdiction.

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

The scope of a patent claim is determined by an interpretation of the law, the written disclosure in a patent and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending application may be incorrect. For example, we may incorrectly determine that our therapeutics are not covered by a third-party patent or may incorrectly predict whether a third-party's pending application will issue with claims of relevant scope. Our determination of the expiration date of any patent in the United States or abroad that we consider relevant may be incorrect. Our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our product candidates.

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

Intellectual property rights of third parties could adversely affect our ability to commercialize our product candidates, and we, our licensors or collaborators, or any future strategic partners may become subject to third party claims or litigation alleging infringement of patents or other proprietary rights or seeking to invalidate patents or other proprietary rights. We might be required to litigate or obtain licenses from third parties in order to develop or market our product candidates. Such litigation or licenses could be costly or not available on commercially reasonable terms.

We, our licensors or collaborators, or any future strategic partners may be subject to third-party claims for infringement or misappropriation of patent or other proprietary rights. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions and *inter partes* review proceedings before the USPTO, and corresponding foreign patent offices. For example, one of our European patents related to technology auxiliary to our XpressCF® platform is involved in an opposition proceeding at the European Patent Office, or EPO, and was revoked by the EPO in 2021. In April 2022, an appeal was filed; the process for this appeal is ongoing. This may prevent us from asserting this patent against our competitors practicing otherwise infringing methods in relevant European countries where this patent has been granted. There are many issued and pending patents that might claim aspects of our product candidates and modifications that we may need to apply to our product candidates. There are also many issued patents that claim antibodies, portions of antibodies, cytokines, half-life extending polymers, linkers, cytotoxins, or other warheads that may be relevant for the products we wish to develop. Thus, it is possible that one or more organizations will hold patent rights to which we will need a license. If those organizations refuse to grant us a license to such patent rights on reasonable terms, we may be delayed or may not be able to market products or perform research and development or other activities covered by these patents which could have a material and adverse effect on our business, financial condition, results of operations and prospects. We are obligated under certain of our license and collaboration agreements to indemnify and hold harmless our licensors or collaborators for damages arising from intellectual property infringement by use. For example, we are obligated under the Stanford Agreement to indemnify and hold harmless Stanford for damages arising from intellectual property infringement by us resulting from exercise of the license from Stanford. If we, our licensors or collaborators, or any future strategic partners are found to infringe a third-party patent or other intellectual property rights, we could be required to pay damages, potentially including treble damages, if we are found to have infringed willfully. In addition, we, our licensors or collaborators, or any future strategic partners may choose to seek, or be required to seek, a license from a third party, which may not be available on acceptable terms, if at all. Even if a license can be obtained on acceptable terms, the rights may be non-exclusive, which could give our competitors access to the same technology or intellectual property rights licensed to us. If we fail to obtain a required license, we or our existing or future collaborators may be unable to effectively market product candidates based on our technology, which could limit our ability to generate revenue or achieve profitability and possibly prevent us from generating revenue sufficient to sustain our operations. In addition, we may find it necessary to pursue claims or initiate lawsuits to protect or enforce our patent or other intellectual property rights. The cost to us in defending or initiating any litigation or other proceeding relating to patent or other proprietary rights, even if resolved in our favor, could be substantial, and litigation could divert our management's attention. Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could delay our research and development efforts and limit our ability to continue our operations.

Because the antibody-based therapeutics landscape is still evolving, it is difficult to conclusively assess our freedom to operate without infringing on third-party rights. There are numerous companies that have pending patent applications and issued patents broadly covering antibodies generally, covering antibodies directed against the same targets as, or targets similar to, those we are pursuing, or covering linkers and cytotoxic warheads similar to those that we are using in our product candidates. For example, we are aware of an issued patent, expected to expire in 2031, that relates to strained alkyne reagents that can be used as synthetic precursors for certain of our linker-warheads. We are also aware of an issued patent expected to expire in 2028, relating to methods for targeting maytansinoids to a selected population of cells with a cell-binding agent conjugated to a maytansinoid with a non-cleavable linker. We are further aware of an issued patent, expected to expire in 2034, relating to certain conjugates comprising a genus of hemiasterlin derivatives that may be potentially relevant to products incorporating our hemiasterlin-derived linker-warhead. If any of these patents are valid and not yet expired when, and if, we receive marketing approval for luvelta or STRO-001, as applicable, we may need to seek a license to one or more of these patents, each of which may not be available on commercially reasonable terms or at all. Failure to receive a license to any of these patents, or other potentially relevant patents currently unknown to us, could delay commercialization of luvelta or STRO-001. Our competitive position may suffer if patents issued to third parties or other third-party intellectual property rights cover our products or product candidates or elements thereof, or our manufacture or uses relevant to our development plans. In such cases, we may not be in a position to develop or

commercialize products or product candidates until such patents expire or unless we successfully pursue litigation to nullify or invalidate the third-party intellectual property right concerned, or enter into a license agreement with the intellectual property right holder, if available on commercially reasonable terms. There may be issued patents of which we are not aware, held by third parties that, if found to be valid and enforceable, could be alleged to be infringed by our XpressCF® and XpressCF+® platforms and related technologies and product candidates. There also may be pending patent applications of which we are not aware that may result in issued patents, which could be alleged to be infringed by our XpressCF® and XpressCF+® platforms and related technologies and product candidates. If such an infringement claim should be brought and be successful, we may be required to pay substantial damages, including potentially treble damages and attorneys' fees for willful infringement, and we may be forced to abandon our product candidates or seek a license from any patent holders. No assurances can be given that a license will be available on commercially reasonable terms, if at all.

It is also possible that we have failed to identify relevant third-party patents or applications. For example, U.S. applications filed before November 29, 2000, and certain U.S. applications filed after that date that will not be filed outside the United States remain confidential until patents issue. Patent applications in the United States and elsewhere are published approximately 18 months after the earliest filing for which priority is claimed, with such earliest filing date being commonly referred to as the priority date. Therefore, patent applications covering our products or platform technologies could have been filed by others without our knowledge. Additionally, pending patent applications that have been published can, subject to certain limitations, be later amended in a manner that could cover our platform technologies, our products or the use of our products. Third-party intellectual property right holders may also actively bring infringement claims against us. We cannot guarantee that we will be able to successfully settle or otherwise resolve such infringement claims. If we are unable to successfully settle future claims on terms acceptable to us, we may be required to engage in or continue costly, unpredictable and time-consuming litigation and may be prevented from or experience substantial delays in marketing our products. Parties making claims against us may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation or administrative proceedings, there is a risk that some of our confidential information could be compromised by disclosure. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have material adverse effect on our ability to raise additional funds or otherwise have a material adverse effect on our business, results of operations, financial condition and prospects. If we fail in any such dispute, in addition to being forced to pay damages, we may be temporarily or permanently prohibited from commercializing any of our product candidates that are held to be infringing. We might, if possible, also be forced to redesign product candidates so that we no longer infringe the third-party intellectual property rights. Any of these events, even if we were ultimately to prevail, could require us to divert substantial financial and management resources that we would otherwise be able to devote to our business and could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Litigation or other legal proceedings relating to intellectual property claims, with or without merit, is unpredictable and generally expensive and time consuming and is likely to divert significant resources from our core business, including distracting our technical and management personnel from their normal responsibilities. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Moreover, such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities.

We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon or misappropriating or from successfully challenging our intellectual property rights. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

If we fail to comply with our obligations under any license, collaboration or other agreements, we may be required to pay damages and could lose intellectual property rights that are necessary for developing and protecting our product candidates or we could lose certain rights to grant sublicenses.

Our current licenses impose, and any future licenses we enter into are likely to impose, various development, commercialization, funding, milestone, royalty, diligence, sublicensing, insurance, patent prosecution and enforcement and/or other obligations on us. If we breach any of these obligations, or use the intellectual property licensed to us in an

unauthorized manner, we may be required to pay damages and the licensor may have the right to terminate the license, which could result in us being unable to develop, manufacture and sell any future products that are covered by the licensed technology or enable a competitor to gain access to the licensed technology. Moreover, our licensors may own or control intellectual property that has not been licensed to us and, as a result, we may be subject to claims, regardless of their merit, that we are infringing or otherwise violating the licensor's rights. In addition, while we cannot determine currently the amount of the royalty obligations we would be required to pay on sales of future products, if any, the amounts may be significant. The amount of our future royalty obligations will depend on the technology and intellectual property we use in products that we successfully develop and commercialize, if any. Therefore, even if we successfully develop and commercialize products, we may be unable to achieve or maintain profitability.

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

•the scope of rights granted under the license agreement and other interpretation-related issues;

•the extent to which our product candidates, technologies and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;

•the sublicensing of patent and other rights under our collaborative development relationships;

•our diligence obligations under the license agreement and what activities satisfy those diligence obligations;

•the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners; and

•the priority of invention of patented technology.

In addition, the agreements under which we currently license intellectual property or technology from third parties are complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations, and prospects. Moreover, if disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates, which could have a material adverse effect on our business, financial conditions, results of operations, and prospects.

We may be subject to claims that we or our employees or consultants have wrongfully used or disclosed alleged trade secrets of our employees' or consultants' former employers or their clients. These claims may be costly to defend and if we do not successfully do so, we may be required to pay monetary damages and may lose valuable intellectual property rights or personnel.

Many of our employees were previously employed at universities or biotechnology or biopharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key research personnel or their work product could hamper our ability to commercialize, or prevent us from commercializing, our product candidates, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

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

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our product candidates are obtained, once the patent life has expired, we may be open to competition from competitive products, including generics or biosimilars. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

Depending upon the timing, duration and conditions of any FDA marketing approval of our product candidates, one or more of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments, and similar legislation in the European Union. The Hatch-Waxman Amendments permit a patent term extension of up to five years for a patent covering an approved product as compensation for effective patent term lost during product development and the FDA regulatory review process. However, we may not receive an extension if we fail to exercise due diligence during the testing phase or regulatory review process, fail to apply within applicable deadlines, fail to apply prior to expiration of relevant patents or otherwise fail to satisfy applicable requirements. Moreover, the length of the extension could be less than we request. Only one patent per approved product can be extended, the extension cannot extend the total patent term beyond 14 years from approval and only those claims covering the approved drug, a method for using it or a method for manufacturing it may be extended. If we are unable to obtain patent term extension or the term of any such extension is less than we request, the period during which we can enforce our patent rights for the applicable product candidate will be shortened and our competitors may obtain approval to market competing products sooner. As a result, our revenue from applicable products could be reduced. Further, if this occurs, our competitors may take advantage of our investment in development and trials by referencing our clinical and preclinical data and launch their product earlier than might otherwise be the case, and our competitive position, business, financial condition, results of operations and prospects could be materially harmed.

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

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to be paid to the USPTO and various governmental patent agencies outside of the United States in several stages over the lifetime of the patents and/or applications. We have systems in place to remind us to pay these fees, and we employ an outside firm and/or rely on our outside counsel to pay these fees due to non-U.S. patent agencies. The USPTO and various non-U.S. governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. We employ reputable law firms and other professionals to help us comply, and in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, our competitors might be able to enter the market and this circumstance would have a material adverse effect on our business.

Changes in U.S. patent and ex-U.S. patent laws could diminish the value of patents in general, thereby impairing our ability to protect our products.

Changes in either the patent laws or interpretation of the patent laws in the United States or in other ex-U.S. jurisdictions could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. In the United States, numerous recent changes to the patent laws and proposed changes to the rules of the USPTO that may have a significant impact on our ability to protect our technology and enforce our intellectual property rights. For example, the America Invents Act, enacted within the last several years involves significant changes in patent legislation. The U.S. Supreme Court has ruled on several patent cases in recent years, some of which cases either narrow the scope of patent protection available in certain circumstances or weaken the rights of patent owners in certain situations. For example, the decision by the U.S. Supreme Court in Association for Molecular Pathology v. Myriad Genetics, Inc. precludes a claim to a nucleic acid having a stated nucleotide sequence that is identical to a sequence found in nature and unmodified. We currently are not aware of an immediate impact of this decision on our patents or patent applications because we are developing product candidates that contain modifications that we believe are not found in nature. However, this decision has yet to be clearly interpreted by courts and by the USPTO. We cannot assure you that the interpretations of this decision or subsequent rulings will not adversely impact our patents or patent applications. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts and the USPTO, and similar legislative and regulatory bodies in other countries in which we may pursue patent protection, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future.

We may become subject to claims challenging the inventorship or ownership of our patents and other intellectual property.

We may be subject to claims that former employees, collaborators or other third parties have an interest in our patents or other intellectual property as an inventor or co-inventor. The failure to name the proper inventors on a patent application can result in the patents issuing thereon being unenforceable. Inventorship disputes may arise from conflicting views regarding the contributions of different individuals named as inventors, the effects of foreign laws where foreign nationals are involved in the development of the subject matter of the patent, conflicting obligations of third parties involved in developing our product candidates or as a result of questions regarding co-ownership of potential joint inventions. Litigation may be necessary to resolve these and other claims challenging inventorship or ownership. Alternatively, or additionally, we may enter into agreements to clarify the scope of our rights in such intellectual property. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

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

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

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

Our trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks. We may not be able to protect our rights to these trademarks and trade names or may be forced to stop using these names, which we need for name recognition by potential partners or customers in our markets of interest. If we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively, which could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Risks Related to Government Regulation

Clinical development involves a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results. If we are unable to develop, obtain regulatory approval for and commercialize our product candidates, or experience significant delays in doing so, our business will be materially harmed. Changes in regulatory policy may render our strategies for obtaining regulatory approval less effective or completely ineffective, preventing us from obtaining regulatory approval for our product candidates on time or at all.

All of our product candidates are in preclinical or early clinical development and their risk of failure is high. It is impossible to predict when or if any of our product candidates will receive regulatory approval. Before obtaining marketing approval from regulatory authorities for the sale of any product candidate, we must complete preclinical studies and then conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the development process. The results of preclinical studies and early clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits, despite having progressed through preclinical studies and initial clinical trials. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or safety profiles, notwithstanding promising results in earlier trials.

We commenced a Phase 1 clinical trial of STRO-001, an ADC directed against CD74, for certain cancers in April 2018 and commenced a luvelta Phase 1 trial focused on ovarian and endometrial cancers in March 2019. Additionally, in the fourth quarter of 2021, we initiated a new cohort of the Phase 1 study of luvelta for endometrial cancer and an additional Phase 1 study for the treatment of ovarian cancer with luvelta in combination with bevacizumab. We expect to announce data from both the study of the combination of luvelta with bevacizumab for the treatment of ovarian cancer and the study of luvelta for the treatment of endometrial cancer in the second half of 2023. In addition, we announced in June 2023 the initiation of a Phase 2/3 pivotal study of luvelta for the treatment of platinum-resistant ovarian cancer. Commencing our future clinical trials is subject to finalizing the trial design and submitting an IND or similar submission with the FDA or similar foreign regulatory authority. Even after we submit our IND or comparable submissions in other jurisdictions, the FDA or other regulatory authorities could disagree that we have satisfied their requirements to commence our clinical trials or disagree with our study design, which may require us to complete additional preclinical studies or amend our protocols or impose stricter conditions on the commencement of clinical trials.

We or our collaborators may experience delays in completing our preclinical studies and initiating or completing clinical trials of our product candidates. We do not know whether planned preclinical studies and clinical trials will be completed on schedule or at all, or whether planned clinical trials will begin on time, need to be redesigned, have patients enrolled on time or be completed on schedule, if at all. We or our collaborators may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive marketing approval to commercialize our product candidates. Our development programs may be delayed for a variety of reasons, including delays related to:

- the FDA, EMA or other regulatory authorities requiring us or our collaborators to submit additional data or imposing other requirements before permitting us to initiate a clinical trial;
- obtaining regulatory approval to commence a clinical trial;
- the FDA or other regulatory authorities placing a clinical trial on clinical hold;
- a temporary U.S. federal government shutdown;
- reaching agreement on acceptable terms with prospective CROs and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and clinical trial sites;
- clinical trials of our product candidates producing negative or inconclusive results, and we or our collaborators deciding, or regulators requiring us, to conduct additional clinical trials, including testing in more subjects, or abandoning product development programs;
- third-party contractors used by us or our collaborators failing to comply with regulatory requirements or meeting their contractual obligations in a timely manner, or at all;
- obtaining institutional review board, or IRB, approval at each clinical trial site;

•recruiting suitable patients to participate in a clinical trial;

•developing and validating any companion diagnostic that would be used in a clinical trial;

•developing and validating an appropriate scoring algorithm to support a biomarker enrichment strategy for certain of our product candidates;

•cost of clinical trials being greater than anticipated;

•the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates being insufficient or inadequate;

•having patients complete a clinical trial or return for post-treatment follow-up;

•clinical trial sites deviating from trial protocol or dropping out of a trial;

•adding new clinical trial sites;

•epidemics, pandemics or contagious diseases, such as COVID-19; or

•manufacturing sufficient quantities of our product candidates for use in clinical trials.

Patient enrollment, a significant factor in the timing of clinical trials, is affected by many factors including the size and nature of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, the design of the clinical trial, competing clinical trials and clinicians' and patients' perceptions as to the potential advantages of the product candidate being studied in relation to other available therapies, including any new drugs or therapeutic biologics that may be approved for the indications being investigated by us. Furthermore, we expect to rely on our collaborators, CROs and clinical trial sites to ensure the proper and timely conduct of our clinical trials and, while we expect to enter into agreements governing their committed activities, we have limited influence over their actual performance.

We could encounter delays if prescribing physicians encounter unresolved ethical issues associated with enrolling patients in clinical trials of our product candidates in lieu of prescribing existing treatments that have established safety and efficacy profiles.

Further, a clinical trial may be suspended or terminated by us, our collaborators, the IRBs of the institutions in which such trials are being conducted, the Data Safety Monitoring Board for such trial, or placed on clinical hold by the FDA or other regulatory authorities due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a drug or therapeutic biologic, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. If we experience delays in the completion of, or termination of, any clinical trial of our product candidates, the commercial prospects of our product candidates will be harmed, and our ability to generate product revenues from any of these product candidates will be delayed. In addition, any delays in completing our clinical trials will increase our costs, slow down our product development and approval process and jeopardize our ability to commence product sales and generate revenues. Any of these occurrences could materially and adversely affect our business, financial condition, results of operations and prospects. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

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

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

Although our employees have experience in conducting and managing clinical trials from prior employment at other companies, we, as a company, have no prior experience in conducting and managing the clinical trials necessary to obtain regulatory approvals, including approval by the FDA. The time required to obtain FDA and other approvals is unpredictable but typically takes many years following the commencement of clinical trials, depending upon the type, complexity and novelty of the product candidate, and may be further delayed due to one or more temporary federal government shutdowns. The standards that the FDA and its foreign counterparts use when regulating us require judgment and can change, which makes it difficult to predict with certainty their application. Any analysis we perform of data from preclinical and clinical activities is subject to confirmation and interpretation by regulatory authorities, which could delay, limit or prevent regulatory approval. We or our collaborators may also encounter unexpected delays or increased costs due to new government regulations, for example, from future legislation or administrative action, or from changes in FDA policy during the period of product development, clinical trials and FDA regulatory review. It is impossible to predict whether legislative changes will be enacted, or whether FDA or foreign regulations, guidance or interpretations will be changed, or the impact of such changes, if any. For example, the Oncology Center of Excellence within the FDA has recently advanced Project Optimus, which is an initiative to reform the dose optimization and dose selection paradigm in oncology drug development to emphasize selection of an optimal dose, which is a dose or doses that maximizes not only the efficacy of a drug but the safety and tolerability as well. This shift from the prior approach, which generally determined the maximum tolerated dose, may require sponsors to spend additional time and resources to further explore a product candidate's dose-response relationship to facilitate optimum dose selection in a target population. Other recent Oncology Center of Excellence initiatives have included Project FrontRunner, a new initiative with a goal of developing a framework for identifying candidate drugs for initial clinical development in the earlier advanced setting rather than for treatment of patients who have received numerous prior lines of therapies or have exhausted available treatment options. We are considering these policy changes as they relate to our programs.

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

Any delay or failure in obtaining required approvals could have a material and adverse effect on our ability to generate revenues from the particular product candidate for which we are seeking approval. Furthermore, any regulatory approval to market a product may be subject to limitations on the approved uses for which we may market the product or on the labeling or other restrictions. In addition, the FDA has the authority to require a risk evaluation and mitigation strategy, or REMS, as part of a BLA or after approval, which may impose further requirements or restrictions on the distribution or use of an approved biologic, such as limiting prescribing to certain physicians or medical centers that have undergone specialized training, limiting treatment to patients who meet certain safe-use criteria and requiring treated patients to enroll in a registry. These limitations and restrictions may limit the size of the market for the product and affect reimbursement by third-party payors.

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

Delays in obtaining regulatory approval of our manufacturing process may delay or disrupt our commercialization efforts. To date, no product using a cell-free manufacturing process in the United States has received approval from the FDA.

Before we can begin to commercially manufacture our product candidates in third-party or our own facilities, we must obtain regulatory approval from the FDA for a BLA that describes in detail the chemistry, manufacturing, and controls for the product. A manufacturing authorization must also be obtained from the appropriate EU regulatory authorities. The timeframe required to obtain such approval or authorization is uncertain. In addition, we must pass a pre-approval inspection of our manufacturing facility by the FDA before any of our product candidates can obtain marketing approval, if ever. In order to obtain approval, we will need to ensure that all of our processes, methods and equipment are compliant with cGMP, and perform extensive audits of vendors, contract laboratories and suppliers. If any of our vendors, contract laboratories or suppliers is found to be out of compliance with cGMP, we may experience delays or disruptions in manufacturing while we work with these third parties to remedy the violation or while we work to identify suitable replacement vendors. The cGMP requirements govern quality control of the manufacturing process and documentation policies and procedures. In complying with cGMP, we will be obligated to expend time, money and effort in production, record keeping and quality control to assure that the product meets applicable specifications and other requirements. If we fail to comply with these requirements, we would be subject to possible regulatory action and may not be permitted to sell any products that we may develop.

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

Any regulatory approvals that we or our existing or future collaborators obtain for our product candidates may also be subject to limitations on the approved indicated uses for which a product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of the product candidate.

In addition, if the FDA or a comparable foreign regulatory authority approves any of our product candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, import, export, advertising, promotion and recordkeeping for the product will be subject to extensive and ongoing regulatory requirements. The FDA has significant post-market authority, including the authority to require labeling changes based on new safety information and to require post-market studies or clinical trials to evaluate safety risks related to the use of a product or to require withdrawal of the product from the market. The FDA also has the authority to require a REMS plan after approval, which may impose further requirements or restrictions on the distribution or use of an approved drug or therapeutic biologic. The manufacturing facilities we use to make a future product, if any, will also be subject to periodic review and inspection by the FDA and other regulatory agencies, including for continued compliance with cGMP requirements. The discovery of any new or previously unknown problems with our third-party manufacturers, manufacturing processes or facilities may result in restrictions on the product, manufacturer or facility, including withdrawal of the product from the market. If we rely on third-party manufacturers, we will not have control over compliance with applicable rules and regulations by such manufacturers. Any product promotion and advertising will also be subject to regulatory requirements and continuing regulatory review. If we or our existing or future collaborators, manufacturers or service providers fail to comply with applicable continuing regulatory requirements in the United States or foreign jurisdictions in which we seek to market our products, we or they may be subject to, among other things, fines, warning letters, holds on clinical trials, delay of approval or refusal by the FDA or similar foreign regulatory bodies to approve pending applications or supplements to approved applications, suspension or withdrawal of regulatory approval, product recalls and seizures, administrative detention of products, refusal to permit the import or export of products, operating restrictions, injunction, civil penalties and criminal prosecution.

Subsequent discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

•restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market or voluntary or mandatory product recalls;

•fines, warning or untitled letters or holds on clinical trials;

•refusal by the FDA to approve pending applications or supplements to approved applications filed by us or our strategic partners;

•suspension or revocation of product license approvals;

•product seizure or detention or refusal to permit the import or export of products; and

•injunctions or the imposition of civil or criminal penalties.

The FDA policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability, which would adversely affect our business.

We also cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, statutory, regulatory and policy changes, the FDA's ability to hire and retain key personnel and accept the payment of user fees, and other events that may otherwise affect the FDA's ability to perform routine functions. In addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable. Disruptions at the FDA and other agencies may also slow the time necessary for new drugs to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, including for 35 days beginning on December 22, 2018, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA, have had to furlough critical employees and stop critical activities.

The ability of the FDA and other government agencies to properly administer their functions is highly dependent on the levels of government funding and the ability to fill key leadership appointments, among various factors. Delays in filling or replacing key positions could significantly impact the ability of the FDA and other agencies to fulfill their functions, and could greatly impact healthcare and the pharmaceutical industry.

Separately, in response to the COVID-19 pandemic, for a period of time, the FDA temporarily postponed most inspections of foreign manufacturing facilities along with routine surveillance inspections of domestic manufacturing facilities. The FDA has since developed a rating system to determine what categories of regulatory activity can take place in a given geographic region. As of May 2021, the FDA was either continuing, on a case-by-case basis, to conduct "mission-critical" inspections (foreign and domestic) or, where possible to do so safely, resuming prioritized domestic inspections, which generally include preapproval, pre-license, surveillance, and for-cause inspections. Regulatory authorities outside the United States may adopt similar restrictions or other policy measures in response to future health pandemics. If a prolonged government shutdown occurs, or if global health concerns continue to prevent the FDA or other regulatory authorities from conducting their regular inspections, reviews, or other regulatory activities, it could significantly impact the ability of the FDA or other regulatory authorities to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

We may face difficulties from healthcare legislative reform measures.

Existing regulatory policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

In the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs. For example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Healthcare and Education Reconciliation Act, or together, the ACA, was enacted, which substantially changed the way healthcare is financed by both governmental and private insurers, and significantly impacts the U.S. pharmaceutical industry.

There have been legislative and judicial efforts to modify, repeal or otherwise invalidate all or certain aspects of the ACA, including measures taken during the former presidential administration. By way of example, the Tax Cuts and Jobs Act, or the TCJA, was enacted, effective January 1, 2019, and included, among other things, a provision repealing the tax-based shared responsibility payment imposed by the ACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate." On June 17, 2021, the U.S. Supreme Court dismissed a challenge on procedural grounds that argued the ACA is unconstitutional in its entirety because the "individual mandate" was repealed by Congress. Thus, the ACA will remain in effect in its current form. It is possible that the ACA will be subject to judicial or Congressional challenges in the future.

The 2020 federal spending package permanently eliminated, effective January 1, 2020, the ACA-mandated "Cadillac" tax on certain high-cost employer-sponsored insurance plans and the medical device excise tax on non-exempt medical devices, and effective January 1, 2021, also eliminated the health insurer tax. Further, the Bipartisan Budget Act of 2018, or the BBA, among other things, amended the ACA, effective January 1, 2019, to increase from 50% to 70% the point-of-sale discount that is owed by pharmaceutical manufacturers who participate in Medicare Part D and to close the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole." In addition, CMS published a final rule that would give states greater marketplaces, which may have the effect of relaxing essential health benefits required under the ACA for plans sold through such marketplaces.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted to reduce healthcare expenditures. U.S. federal government agencies also currently face potentially significant spending reductions, which may further impact healthcare expenditures. On August 2, 2011, the Budget Control Act of 2011 among other things, created measures for spending reductions by Congress. A joint select committee on deficit reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of 2% per fiscal year. These reductions went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute will remain in effect through 2032, unless additional Congressional action is taken. Moreover, on January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. If federal spending is further reduced, anticipated budgetary shortfalls may also impact the ability of relevant agencies, such as the FDA or the National Institutes of Health to continue to function at current levels. Amounts allocated to federal grants and contracts may be reduced or eliminated. These reductions may also impact the ability of relevant agencies to timely review and approve research and development, manufacturing, and marketing activities, which may delay our ability to develop, market and sell any products we may develop.

Moreover, payment methodologies, including payment for companion diagnostics, may be subject to changes in healthcare legislation and regulatory initiatives. For example, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or MMA, changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for drug purchases by the elderly and introduced a new reimbursement methodology based on average sales prices for physician-administered drugs. In addition, this legislation provided authority for limiting the number of drugs that will be covered in any therapeutic class. While the MMA only applies to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates. Therefore, any reduction in reimbursement that results from the MMA may result in a similar reduction in payments from private payors. In addition, CMS has begun bundling the Medicare payments for certain laboratory tests ordered while a patient received services in a hospital outpatient setting and, beginning in 2018, CMS will pay for clinical laboratory services based on a weighted average of reported prices that private payors, Medicare Advantage plans, and Medicaid Managed Care plans pay for laboratory services. Further, on March 16, 2018, CMS finalized its National Coverage Determination, or NCD, for certain diagnostic laboratory tests using next generation sequencing that are approved by the FDA as a companion *in vitro* diagnostic and used in a cancer with an FDA-approved companion diagnostic indication. Under the NCD, diagnostic tests that gain FDA approval or clearance as an *in vitro* companion diagnostic will automatically receive full coverage and be available for patients with recurrent, metastatic relapsed, refractory or stages III and IV cancer. Additionally, the NCD extended coverage to repeat testing when the patient has a new primary diagnosis of cancer.

Recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several presidential executive orders, Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program

reimbursement methodologies for drug products. The FDA released a final rule in September 2020 providing guidance for states to build and submit importation plans for drugs from Canada.

Further, in November 2020, HHS finalized a regulation removing safe harbor protection for price reductions from pharmaceutical manufacturers to plan sponsors under Part D, either directly or through pharmacy benefit managers, unless the price reduction is required by law. The rule also creates a new safe harbor for price reductions reflected at the point-of-sale, as well as a safe harbor for certain fixed fee arrangements between pharmacy benefit managers and manufacturers. The rule also created a new safe harbor for price reductions reflected at the point-of-sale, as well as a safe harbor for certain fixed fee arrangements between pharmacy benefit managers and manufacturers. The implementation of this final rule was delayed by the Biden administration until January 1, 2023 and subsequently delayed by the Inflation Reduction Act, or IRA, until January 1, 2032. In December 2020, CMS issued a final rule implementing significant manufacturer price reporting changes under the Medicaid Drug Rebate Program, including regulations that affect manufacturer-sponsored patient assistance programs subject to pharmacy benefit manager accumulator programs and Best Price reporting related to certain value-based purchasing arrangements. Under the American Rescue Plan Act of 2021, effective January 1, 2024, the statutory cap on Medicaid Drug Rebate Program rebates that manufacturers pay to state Medicaid programs will be eliminated. Elimination of this cap may require pharmaceutical manufacturers to pay more in rebates than they receive on the sale of products. It is unclear to what extent these new requirements will be implemented and to what extent these regulations or any future legislation or regulations by the Biden administration will have on our business, including our ability to generate revenue and achieve profitability.

On September 9, 2021, the Biden Administration published a wide-ranging list of policy proposals, most of which would need to be carried out by Congress, to reduce drug prices and drug payment. These initiatives recently culminated in the enactment of the IRA in August 2022, which will, among other things, allow HHS to negotiate the selling price of certain drugs and biologics that CMS reimburses under Medicare Part B and Part D, although this will only apply to high-expenditure single-source biologics that have been approved for at least 11 years (7 years for drugs). The negotiated prices, which will first become effective in 2026, will be capped at a statutory ceiling price. Beginning in October 2022 for Medicare Part D and January 2023 for Medicare Part B, the IRA also penalizes drug manufacturers that increase prices of Medicare Part D and Part B drugs at a rate greater than the rate of inflation. In addition, the law eliminates the “donut hole” under Medicare Part D beginning in 2025 by significantly lowering the enrollee maximum out-of-pocket cost and requiring manufacturers to subsidize, through a newly established manufacturer discount program, 10% of Part D enrollees’ prescription costs for brand drugs below the out-of-pocket maximum, and 20% once the out-of-pocket maximum has been reached. The IRA permits the Secretary of HHS to implement many of these provisions through guidance, as opposed to regulation, for the initial years. Manufacturers that fail to comply with the IRA may be subject to various penalties, including civil monetary penalties. The IRA also extends enhanced subsidies for individuals purchasing health insurance coverage in ACA marketplaces through plan year 2025. These provisions will take effect progressively starting in 2023, although they may be subject to legal challenges. At the state level, legislatures are increasingly passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

Additionally, on May 30, 2018, the Trickett Wendler, Frank Mongiello, Jordan McLinn, and Matthew Bellina Right to Try Act of 2017 was signed into law. The law, among other things, provides a federal framework for certain patients to access certain investigational new drug products that have completed a Phase 1 clinical trial and that are undergoing investigation for FDA approval. Under certain circumstances, eligible patients can seek treatment without enrolling in clinical trials and without obtaining FDA authorization under an FDA expanded access program; however, manufacturers are not obligated to provide investigational new drug products under the current federal right to try law. We may choose to seek an expanded access program for our product candidates, or to utilize comparable rules in other countries that allow the use of a drug, on a named patient basis or under a compassionate use program.

We expect that the ACA, the IRA and other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our products.

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

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

•the federal Anti-Kickback Statute, which prohibits, among other things, individuals and entities from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under a federal and state healthcare program such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;

•the federal criminal and civil false claims and civil monetary penalties laws, including the federal False Claims Act, which can be imposed through civil whistleblower or qui tam actions against individuals or entities, prohibits, among other things, knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent, knowingly making, using or causing to be made or used, a false record or statement material to a false or fraudulent claim, or from knowingly making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government. In addition, certain marketing practices, including off-label promotion, may also violate false claims laws. Moreover, the government may assert that a claim including items and services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act;

•HIPAA, which imposes criminal and civil liability, prohibits, among other things, knowingly and willfully executing, or attempting to execute a scheme to defraud any healthcare benefit program, or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services; similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;

•HIPAA, as amended by HITECH, which impose obligations on certain healthcare providers, health plans, and healthcare clearinghouses, known as covered entities, as well as their business associates that perform certain services involving the storage, use or disclosure of individually identifiable health information, including mandatory contractual terms, with respect to safeguarding the privacy, security, and transmission of individually identifiable health information, and require notification to affected individuals and regulatory authorities of certain breaches of security of individually identifiable health information;

•the federal legislation commonly referred to as Physician Payments Sunshine Act, enacted as part of the ACA, and its implementing regulations, which requires certain manufacturers of covered drugs, devices, biologics and medical supplies that are reimbursable under Medicare, Medicaid, or the Children's Health Insurance Program, with certain exceptions, to report annually to CMS information related to certain payments and other transfers of value to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), physician assistants, certain types of advanced practice nurses, and teaching hospitals, as well as ownership and investment interests held by the physicians described above and their immediate family members, with the information made publicly available on a searchable website;

•the U.S. Foreign Corrupt Practices Act of 1977, as amended, which prohibits, among other things, U.S. companies and their employees and agents from authorizing, promising, offering, or providing, directly or indirectly, corrupt or improper payments or anything else of value to foreign government officials, employees of public international organizations and foreign government owned or affiliated entities, candidates for foreign political office, and foreign political parties or officials thereof;

•analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, that may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; and

•certain state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring drug and therapeutic biologics manufacturers to report information related to payments to physicians and other healthcare providers or marketing expenditures and pricing information, state and local laws that require the registration of pharmaceutical sales representatives, and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

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

•exclusion from participation in government-funded healthcare programs;

•exclusion of company products from coverage under federal health care programs; and

•exclusion from eligibility for the award of government contracts for our products.

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

Our failure to comply with privacy and data security laws, regulations and standards may cause our business to be materially adversely affected.

We maintain a quantity of sensitive information, including confidential business and patient health information in connection with our clinical trials, and are subject to US and international laws and regulations governing the privacy and security of such information. Each of these laws is subject to varying interpretations and constantly evolving. In the United States, there are numerous federal and state privacy and data security laws and regulations governing the collection, use, disclosure and protection of personal information, including federal and state health information privacy laws, federal and state security breach notification laws, and federal and state consumer protection laws. In contrast, the EU and United Kingdom ("UK") GDPR, which applies extraterritorially, imposes several strict requirements for controllers and processors of personal information. These include higher standards for obtaining consent from individuals to process their personal information, increased requirements pertaining to the processing of special categories of personal information (such as health information) and pseudonymized (i.e., key-coded) data, and heightened transfer requirements of personal information from the European Economic Area/UK/Switzerland to countries not deemed to have adequate data protections laws (e.g., the U.S. is one such country as of January 1, 2023, although active treaty negotiations between the U.S. and the EU may change that status in 2023). The GDPR also provides that countries in the European Economic Area may establish their own laws and regulations further restricting the processing of certain personal information, including genetic data, biometric data, and health data. Companies that must comply with the GDPR face increased compliance obligations and risk, including more robust regulatory enforcement of data protection requirements and potential fines for noncompliance of up to €20 million (approximately $22.6 million) or 4 percent of the annual global revenues of the noncompliant company, whichever is greater.

In the United States, in addition to HIPAA, various federal (for example, the Federal Trade Commission) and state regulators have adopted, or are considering adopting, laws and regulations concerning personal information and data security. Certain state laws may be more stringent or broader in scope, or offer greater individual rights, with respect to personal information than federal, international, or other state laws, and such laws may differ from each other, all of which may complicate compliance efforts. For example, California, which continues to be a critical state with respect to evolving consumer privacy laws after enacting the California Consumer Privacy Act (the "CCPA"), later amended by ballot measure through the California Privacy Rights Act (the "CPRA"). The CPRA took effect in January 2023 and enforcement will begin

on July 1, 2023, subject to regulations promulgated through a newly created enforcement agency called the California Privacy Protection Agency ("CPPA"). Failure to comply with the CCPA and the CPRA may result in significant civil penalties, injunctive relief, or statutory or actual damages as determined by the CPPA and California Attorney General through its investigative authority. Notably, comparable consumer privacy laws are set to take effect in 2023 in other states including the Virginia Consumer Data Protection Act (effective January 1, 2023), the Colorado Privacy Act and the Connecticut Data Privacy Act (both effective July 1, 2023), and the Utah Consumer Privacy Act (effective December 31, 2023). Compliance with this new privacy legislation may result in additional costs and expense of resources to maintain compliance. There is also discussion in the U.S. of a new comprehensive federal data privacy law to which we would become subject if it is enacted.

We cannot provide assurance that (i) current or future legislation will not prevent us from generating or maintaining personal information, or (ii) that patients will consent to the use of their personal information (as necessary). Either of these circumstances may prevent us from undertaking or publishing essential research and development, manufacturing, and commercialization, which could have a material adverse effect on our business, results of operations, financial condition, and prospects.

Federal, state, and foreign government requirements include obligations of companies to notify regulators and/or individuals of security breaches or other similar reportable incidents experienced by us, or our vendors, contractors, or organizations with whom we had specific contractual obligations to protect our data. Further, the improper access to, use of, or disclosure of our data or a third-party's personal information could subject us to individual or consumer class action litigation and governmental investigations and proceedings by federal, state, and local regulatory entities in the United States and by international regulatory entities. Compliance with these and any other applicable privacy and data security laws and regulations is a rigorous and time-intensive process, and we may be required to put in place additional mechanisms ensuring compliance with the new data protection rules and possible government oversight.

In addition to government regulation, privacy advocates and industry groups have and may in the future propose self-regulatory standards from time to time. These and other industry standards may legally or contractually apply to us, or we may elect to comply with such standards. It is possible that if our practices are not consistent or viewed as not consistent with legal and regulatory requirements, including changes in laws, regulations and standards or new interpretations or applications of existing laws, regulations and standards, we may become subject to audits, inquiries, whistleblower complaints, adverse media coverage, investigations, loss of export privileges, or severe criminal or civil sanctions, all of which may have a material adverse effect on our business, operating results, reputation, and financial condition. All of these evolving compliance and operational requirements impose significant costs, such as costs related to organizational changes, implementing additional protection technologies, training employees and engaging consultants, which are likely to increase over time. In addition, such requirements may require us to modify our data processing practices and policies, distract management or divert resources from other initiatives and projects, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects. Any failure or perceived failure by us to comply with any applicable federal, state, or similar foreign laws and regulations relating to data privacy and security could result in damage to our reputation, as well as proceedings or litigation by governmental agencies or other third parties, including class action privacy litigation in certain jurisdictions, which would subject us to significant fines, sanctions, awards, injunctions, penalties, or judgments. Any of the foregoing could have a material adverse effect on our business, results of operations, financial condition, and prospects.

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

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

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

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

Interim reimbursement levels for new drugs or therapeutic biologics, if applicable, may also be insufficient to cover our costs and may not be made permanent. Reimbursement rates may be based on payments allowed for lower cost drugs or therapeutic biologics that are already reimbursed, may be incorporated into existing payments for other services and may reflect budgetary constraints or imperfections in Medicare data. Net prices for drugs or therapeutic biologics may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs or therapeutic biologics from countries where they may be sold at lower prices than in the United States. Further, no uniform policy for coverage and reimbursement exists in the United States, and coverage and reimbursement can differ significantly from payor to payor. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement rates, but also have their own methods and approval processes apart from Medicare determinations. Our inability to promptly obtain coverage and adequate reimbursement rates from both government-funded and private payors for new drugs or therapeutic biologics that we develop and for which we obtain regulatory approval could have a material and adverse effect on our business, financial condition, results of operations and prospects.

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

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

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

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

With the enactment of the Biologics Price Competition and Innovation Act of 2009, or BPCIA, an abbreviated pathway for the approval of biosimilar biological products (both highly similar and interchangeable biological products) was created. The abbreviated regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as interchangeable based on its similarity to an existing reference

product. The BPCIA provides a period of exclusivity for products granted “reference product exclusivity,” under which an application for a biosimilar product referencing such products cannot be approved by the FDA until 12 years after the first licensure date of the reference product licensed under a BLA. On March 6, 2015, the FDA approved the first biosimilar product under the BPCIA. FDA has accelerated licensure of biosimilar products since the first biosimilar was approved in 2015. However, FDA has yet to deem a biosimilar product interchangeable with the reference product. While FDA has implemented certain procedures intended to implement the BPCIA, other processes remain in development and may be adopted by the FDA; any such processes could have a material adverse effect on the future commercial prospects for our biological products.

A biological product submitted for licensure under a BLA is eligible for a period of exclusivity that commences on the date of its licensure, unless its date of licensure is not considered a date of first licensure because it falls within an exclusion under the BPCIA. There is a risk that this exclusivity could be shortened due to congressional action or otherwise, potentially creating the opportunity for biosimilar competition sooner than anticipated. Additionally, this period of regulatory exclusivity does not apply to companies pursuing regulatory approval via their own traditional BLA, rather than via the abbreviated pathway. Most states have enacted substitution laws that permit substitution of only interchangeable biosimilars. The extent to which a highly similar biosimilar, once approved, will be substituted for any one of our reference products that may be approved in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing.

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

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

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

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

•regulatory authorities may withdraw their approval of the product or seize the product;

•we may be required to recall the product or change the way the product is administered to patients;

•additional restrictions may be imposed on the marketing of the particular product or the manufacturing processes for the product or any component thereof;

•we may be subject to fines, injunctions or the imposition of civil or criminal penalties;

•regulatory authorities may require the addition of labeling statements, such as a black box warning or a contraindication;

•we may be required to create a medication guide outlining the risks of such side effects for distribution to patients;

•we could be sued and held liable for harm caused to patients;

•the product may become less competitive; and

•our reputation may suffer.

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

While we have been granted a Fast Track Designation by the FDA for luvelta, it may not lead to a faster development or regulatory review or approval process.

We have been granted a Fast Track Designation for luvelta for the treatment of patients with platinum-resistant epithelial ovarian, fallopian tube, or primary peritoneal cancer who have received one to three prior lines of systemic therapy. As part of our business strategy, we may also seek Fast Track Designation for other of our product candidates. If a drug or biologic is intended for the treatment of a serious or life-threatening condition and the drug or biologic demonstrates the potential to address unmet medical needs for this condition, the product sponsor may apply for FDA Fast Track Designation. The FDA has broad discretion whether or not to grant this designation, so even if we believe a particular product candidate is eligible for this designation, we cannot assure you that the FDA would decide to grant it. Even if we do receive Fast Track Designation, as we have for luvelta, we may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may withdraw Fast Track Designation if it believes that the designation is no longer supported by data from our clinical development program, which may happen in connection with luvelta or other of our product candidates if granted Fast Track Designation.

While we have been granted Orphan Drug Designation by the FDA for STRO-001 for the treatment of multiple myeloma and for STRO-002 for the treatment of Pediatric (CBF/GLIS) AML, if we decide to seek Orphan Drug Designation for some of our other product candidates, we may be unsuccessful or may be unable to maintain the benefits associated with Orphan Drug Designation, including the potential for orphan drug exclusivity.

We have been granted Orphan Drug Designation by the FDA for STRO-001 for the treatment of multiple myeloma and for luvelta for the treatment of Pediatric CBF/GLIS AML and our former collaborator BMS was granted Orphan Drug Designation by the FDA for CC-99712. As part of our business strategy, we may seek Orphan Drug Designation for our other product candidates, and we may be unsuccessful. Regulatory authorities in some jurisdictions, including the United States and Europe, may designate drugs and therapeutic biologics for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a drug or therapeutic biologic as an orphan drug if it is a drug or therapeutic biologic intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals in the United States, or a patient population greater than 200,000 in the United States where there is no reasonable expectation that the cost of developing the drug or therapeutic biologic will be recovered from sales in the United States. In the United States, Orphan Drug Designation entitles a party to financial incentives such as tax advantages and user fee waivers. In addition, if a product that has Orphan Drug Designation subsequently receives the first FDA approval for the disease for which it has such designation, the product is entitled to orphan drug exclusivity, which means that the FDA may not approve any other applications, including a full BLA, to market the same product for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity or where the manufacturer is unable to assure sufficient product quantity.

Even if we obtain Orphan Drug Designation for our product candidates in specific indications, we may not be the first to obtain marketing approval of these product candidates for the orphan-designated indication due to the uncertainties associated with developing pharmaceutical products. In addition, exclusive marketing rights in the United States may be limited if we seek approval for an indication broader than the orphan-designated indication or may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition. Further, even if we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different drugs or therapeutic biologics with different principal molecular structural features can be approved for the same condition. Even after an orphan product is approved, the FDA can subsequently approve the same drug or therapeutic biologic with the same principal molecular structural features for the same condition if the FDA concludes that the later drug or therapeutic biologic is safer, more effective or makes a major contribution to patient care. Orphan Drug Designation neither shortens the development time or regulatory review time of a drug or therapeutic biologic nor gives the drug or therapeutic biologic any advantage in the regulatory review or approval process. In addition, while we may seek Orphan Drug Designation for our product candidates, we may never receive such designations.

The tax reform legislation signed into law on December 22, 2017 reduced the amount of the qualified clinical research costs for a designated orphan product that a sponsor may claim as a credit from 50% to 25%. This may further limit the advantage and may impact our future business strategy of seeking the Orphan Drug Designation.

If we decide to pursue accelerated approval for any of our product candidates, it may not lead to a faster development or regulatory review or approval process and does not increase the likelihood that our product candidates will receive marketing approval.

In the future, we may decide to pursue accelerated approval for one or more of our product candidates. Under the FDA's accelerated approval program, the FDA may approve a drug or biologic for a serious or life-threatening disease or condition that provides a meaningful advantage over available therapies based upon a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit. For drugs or biologics granted accelerated approval, post-marketing confirmatory trials are required to verify and describe the anticipated effect on irreversible morbidity or mortality or other clinical benefit. These confirmatory trials must be completed with due diligence, and the FDA may require that the trial be designed, initiated, and/or fully enrolled prior to approval. If we were to pursue accelerated approval for a product candidate for a disease or condition, we would do so on the basis that there is no available therapy for that disease or condition or that our product candidate provides a benefit over available therapy. If standard of care were to evolve or if any of our competitors were to receive full approval on the basis of a confirmatory trial for a drug or biologic for a disease or condition for which we are seeking accelerated approval before we receive accelerated approval, the disease or condition would no longer qualify as one for which there is no available therapy, and accelerated approval of our product candidate would not occur without a showing of benefit over available therapy. Many cancer therapies rely on accelerated approval, and the treatment landscape can change quickly as the FDA converts accelerated approvals to full approvals on the basis of successful confirmatory trials. We have initiated discussions with the FDA regarding an appropriate trial design for a registration-directed trial of luvelta to potentially support an accelerated approval; however, whether any trial is sufficient to receive FDA approval under the accelerated approval pathway will depend on the safety and efficacy results of such trial and will only be determined by the FDA upon review of a submitted BLA.

Moreover, the FDA may withdraw approval of any product candidate approved under the accelerated approval pathway if, for example:

- the trial or trials required to verify the predicted clinical benefit of our product candidate fail to verify such benefit or do not demonstrate sufficient clinical benefit to justify the risks associated with such product;
- other evidence demonstrates that our product candidate is not shown to be safe or effective under the conditions of use;
- we fail to conduct any required post-approval trial of our product candidate with due diligence; or
  we disseminate false or misleading promotional materials relating to the relevant product candidate.

In addition, the FDA may terminate the accelerated approval program or change the standards under which accelerated approvals are considered and granted in response to public pressure or other concerns regarding the accelerated approval program. Changes to or termination of the accelerated approval program could prevent or limit our ability to obtain accelerated approval of any of our clinical development programs. Recently, the accelerated approval pathway has come under scrutiny within the FDA and by Congress. The FDA has put increased focus on ensuring that confirmatory studies are conducted with diligence and, ultimately, that such studies confirm the benefit. For example, the FDA has convened its Oncologic Drugs Advisory Committee to review what the FDA has called "dangling" or delinquent accelerated approvals, where confirmatory studies have not been completed or where results did not confirm benefit, but for which marketing approval continues in effect, and some companies have subsequently voluntarily requested

withdrawal of approval of their products. In addition, the Oncology Center of Excellence has recently announced Project Confirm, which is an initiative to promote the transparency of outcomes related to accelerated approvals for oncology indications and provide a framework to foster discussion, research and innovation in approval and post-marketing processes, with the goal to enhance the balance of access and verification of benefit for therapies available to patients with cancer and hematologic malignancies. In addition, the recent enactment of The Food and Drug Omnibus Reform Act, or FDORA, included provisions related to the accelerated approval pathway. Pursuant to FDORA, the FDA is authorized to require a post-approval study to be underway prior to approval or within a specified time period following approval. FDORA also requires the FDA to specify conditions of any required post-approval study and requires sponsors to submit progress reports for required post-approval studies and any conditions required by the FDA. FDORA enables the FDA to initiate enforcement action for the failure to conduct with due diligence a required post-approval study, including a failure to meet any required conditions specified by the FDA or to submit timely reports.

Risks Related to Our Common Stock

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

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

- variations in the level of expense related to the ongoing development of our XpressCF® and XpressCF+® platforms, our product candidates or future development programs;
- the fair value of our holding of common stock of Vaxcyte;
- results of preclinical and clinical trials, or the addition or termination of clinical trials or funding support by us, or existing or future collaborators or licensing partners;
- our execution of any additional collaboration, licensing or similar arrangements, and the timing of payments we may make or receive under existing or future arrangements or the termination or modification of any such existing or future arrangements;
- any intellectual property infringement lawsuit or opposition, interference or cancellation proceeding in which we may become involved;
- additions and departures of key personnel;
- strategic decisions by us or our competitors, such as acquisitions, divestitures, spin-offs, joint ventures, strategic investments or changes in business strategy;
- if any of our product candidates receives regulatory approval, the terms of such approval and market acceptance and demand for such product candidates;
- regulatory developments affecting our product candidates or those of our competitors;
- the impact of accounting principles and tax laws, including as a result of recent tax law changes;
- epidemics, pandemics or contagious diseases, such as COVID-19; and
- changes in general market and economic conditions.

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

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

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

•establish a classified board of directors so that not all members of our board are elected at one time;

•permit only the board of directors to establish the number of directors and fill vacancies on the board;

•provide that directors may only be removed "for cause" and only with the approval of two-thirds of our stockholders;

•require super-majority voting to amend some provisions in our restated certificate of incorporation and restated bylaws;

•authorize the issuance of "blank check" preferred stock that our board could use to implement a stockholder rights plan;

•eliminate the ability of our stockholders to call special meetings of stockholders;

•prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;

•prohibit cumulative voting; and

•establish advance notice requirements for nominations for election to our board or for proposing matters that can be acted upon by stockholders at annual stockholder meetings.

In addition, our restated certificate of incorporation, to the fullest extent permitted by law, provides that the Court of Chancery of the State of Delaware is the exclusive forum for: any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, or the DGCL, our restated certificate of incorporation, or our restated bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. Furthermore, our amended and restated bylaws also provide that unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act (a Federal Forum Provision). While the Supreme Court of the State of Delaware has held that such provisions are facially valid under Delaware law, there can be no assurance that federal or state courts will follow the holding of the Delaware Supreme Court or determine that the Federal Forum Provision should be enforced in a particular case; application of the Federal Forum Provision means that suits brought by our stockholders to enforce any duty or liability created by the Securities Act must be brought in federal court and cannot be brought in state court.

These choice of forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, or other employees, which may discourage lawsuits against us and our directors, officers, employees and agents even though an action, if successful, might benefit our stockholders. Stockholders who do bring a claim in the specified courts could face additional litigation costs in pursuing any such claim. The specified courts may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments or results may be more favorable to us than to our stockholders. Alternatively, if a court were to find these provisions of our governance documents inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

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

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

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

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

The trading price of our common stock may be highly volatile and subject to wide fluctuations in response to various factors, some of which we cannot control. As a result of this volatility, investors may not be able to sell their common stock at or above the purchase price. The market price for our common stock may be influenced by many factors, including the other risks described in this section and the following:

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

•regulatory or legal developments in the United States and other countries, especially changes in laws or regulations applicable to our product candidates;

•the success of competitive products or technologies;

•introductions and announcements of new products by us, our future commercialization partners, or our competitors, and the timing of these introductions or announcements;

•actions taken by regulatory agencies with respect to our products, clinical studies, manufacturing process or sales and marketing terms;

•actual or anticipated variations in our financial results or those of companies that are perceived to be similar to us;

•the success of our efforts to acquire or in-license additional technologies, products or product candidates;

•developments concerning current or future collaborations, including but not limited to those with our sources of manufacturing supply and our commercialization partners;

•market conditions in the pharmaceutical and biotechnology sectors;

•general economic uncertainty and capital markets disruptions, including rising interest rates and inflation, which have been substantially impacted by geopolitical instability due to the ongoing military conflict in Ukraine;

•any adverse impact of health pandemics, including on our clinical trials and clinical trial operations;

•announcements by us or our competitors of significant acquisitions, strategic collaborations, joint ventures or capital commitments;

•developments or disputes concerning patents or other proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our product candidates and products;

•our ability or inability to raise additional capital and the terms on which we raise it;

•the recruitment or departure of key personnel;

•changes in the structure of healthcare payment systems;

•actual or anticipated changes in earnings estimates or changes in stock market analyst recommendations regarding our common stock, other comparable companies or our industry generally;

•our failure or the failure of our competitors to meet analysts' projections or guidance that we or our competitors may give to the market;

•fluctuations in the valuation of companies perceived by investors to be comparable to us;

•announcement and expectation of additional financing efforts;

•speculation in the press or investment community;

•trading volume of our common stock;

•sales of our common stock by us or our stockholders;

•the concentrated ownership of our common stock;

•changes in accounting principles or tax laws;

•terrorist acts, acts of war or periods of widespread civil unrest, including the ongoing armed conflict in Ukraine;

•natural disasters, epidemics, pandemics or contagious diseases, and other calamities;

•political instability, including the occurrence of a temporary federal government shutdown; and

•general economic, industry and market conditions.

In addition, the stock market in general, and the markets for pharmaceutical, biopharmaceutical and biotechnology stocks in particular, have experienced extreme price and volume fluctuations that have been often unrelated or disproportionate to the operating performance of the issuer. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our actual operating performance. The realization of any of the above risks or any of a broad range of other risks, including those described in this "Risk Factors" section, could have a dramatic and adverse impact on the market price of our common stock.

The future sale and issuance of equity or of debt securities that are convertible into equity will dilute our share capital.

We may choose to raise additional capital in the future, depending on market conditions, strategic considerations and operational requirements. To the extent that additional capital is raised through the sale and issuance of shares or other securities convertible into shares, our stockholders will be diluted. Future issuances of our common stock or other equity securities, or the perception that such sales may occur, could adversely affect the trading price of our common stock and impair our ability to raise capital through future offerings of shares or equity securities. No prediction can be made as to the effect, if any, that future sales of common stock or the availability of common stock for future sales will have on the trading price of our common stock.

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

Sales of a substantial number of shares of our common stock in the public market could occur at any time. If our stockholders sell, or the market perceives that our stockholders intend to sell, substantial amounts of our common stock in the public market, the market price of our common stock could decline significantly.

We cannot predict what effect, if any, sales of our shares in the public market or the availability of shares for sale will have on the market price of our common stock. However, future sales of substantial amounts of our common stock in the public market, including shares issued upon exercise of outstanding options or warrants, or the perception that such sales may occur, could adversely affect the market price of our common stock. For example, in April 2021, we entered into the Sales Agreement with Jefferies, pursuant to which, from time to time, we may offer and sell through Jefferies up to $100.0 million of our common stock pursuant to one or more "at the market" offerings. Sales of our common stock under the Sales Agreement with Jefferies could be subject to business, economic or competitive uncertainties and contingencies, many of which may be beyond our control, and which could cause actual results from the sale of our common stock to differ materially from expectations. Any future sales of common stock through our "at the market" offering program will result in dilution and may have a negative impact on the price of our common stock.

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

General Risk Factors

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

Our business, financial condition or results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. For example, the global financial crisis caused extreme volatility and disruptions in the capital and credit markets, and, the global economy has continued to be impacted by increasing interest rates and inflation. Likewise, the capital and credit markets may be adversely affected by the ongoing conflict between Russia and Ukraine, and the possibility of a wider European or global conflict, and global sanctions imposed in response thereto. A severe or prolonged economic downturn, such as the global financial crisis, could result in a variety of risks to our business, including, weakened demand for our product candidates and our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy could also strain our suppliers, possibly resulting in supply disruption, or cause our customers to delay making payments for our services. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business.

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

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not have any control over the analysts or the content and opinions included in their reports. If any of the analysts who cover us issue an adverse or misleading opinion regarding us, our business model, financial condition and results of operations, our intellectual property or our stock performance, or if our preclinical studies and clinical trials and operating results fail to meet the expectations of analysts, our stock price would likely decline. If one or more of such analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause a decline in our stock price or trading volume.

The requirements of being a public company may strain our resources, divert management's attention and affect our ability to attract and retain additional executive management and qualified board members. The additional requirements we must comply with may strain our resources and divert management's attention from other business concerns.

As a public company, we are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the listing requirements of The Nasdaq Global Select Market, and other applicable securities rules and regulations. Compliance with these rules and regulations will increase our legal and financial compliance costs, make some activities more difficult, time-consuming, or costly, and increase demand on our systems and resources. The Exchange Act requires, among other things, that we file annual, quarterly, and current reports with respect to our business and operating results. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. In order to maintain and, if required, improve our disclosure controls and procedures and internal control over financial reporting to meet this standard, significant resources and management oversight may be required. As a result, management's attention may be diverted from other business concerns, which could adversely affect our business and operating results. In order to comply with these requirements, we may need to hire more employees in the future or engage outside consultants, or may have difficulty attracting and retaining sufficient employees, which would increase our costs and expenses.

As a result of no longer being an emerging growth company, we have incurred, and will continue to incur, significant additional expenses that we did not previously incur in complying with the Sarbanes-Oxley Act and rules implemented by the SEC. The cost of compliance with Section 404 of the Sarbanes-Oxley Act has required us to incur substantial accounting expense and expend significant management time on compliance-related issues as we implement additional corporate governance practices and comply with reporting requirements.

We became a "smaller reporting company" as of December 31, 2022. We will continue to be a smaller reporting company if either (i) the market value of our stock held by non-affiliates is less than $250.0 million or (ii) our annual revenue is less than $100.0 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700.0 million. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and are eligible to take

advantage of certain of the reduced disclosure obligations regarding compensation disclosures in 2023. As a smaller reporting company and a “non-accelerated filer”, we still need to comply with Section 404(a) of the Sarbanes-Oxley Act, which will continue to require substantial management time and expense.

In addition, changing laws, regulations, and standards relating to corporate governance, stockholder litigation, and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs, making some activities more time consuming, and increasing the likelihood and expense of litigation. These laws, regulations, and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve or otherwise change over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters, higher costs necessitated by ongoing revisions to disclosure and governance practices, and increased expenses and management attention due to actual or threatened litigation. We intend to invest resources to comply with evolving laws, regulations and standards (or changing interpretations of them), and this investment may result in increased general and administrative expenses and a diversion of management’s time and attention from revenue-generating activities to compliance activities. If our efforts to comply with these laws, regulations, and standards differ from the activities intended by regulatory or governing bodies, regulatory authorities may initiate legal proceedings against us, and our business may be adversely affected. Being a public company and complying with the associated rules and regulations, and being subject to heightened likelihood of litigation, makes it more expensive for us to obtain director and officer liability insurance, the costs of which can fluctuate significantly from year-to-year due to general market conditions in obtaining such insurance, but in recent years have risen significantly, consistent with the increase in market rates. As a result, we may be required to accept reduced coverage, incur substantially higher costs to obtain coverage or may be unable to obtain coverage on economically reasonable terms, or at all. These factors could also make it more difficult for us to attract and retain qualified executives and qualified members of our board of directors, particularly to serve on our audit committee, our compensation committee, and our nominating and corporate governance committee.

As a result of disclosure of information in filings required of a public company, our business and financial condition has become more visible, which may result in threatened or actual litigation, including by competitors. If such claims are successful, our business and operating results could be adversely affected, and even if the claims do not result in litigation or are resolved in our favor, these claims, and the time and resources necessary to resolve them, could divert the resources of our management and adversely affect our business and operating results.

In addition, as a result of our disclosure obligations as a public company, we could face pressure to focus on short-term results, which may adversely affect our ability to achieve long-term profitability.

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

The market price of our common stock may be volatile and, in the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management’s attention from other business concerns, which could seriously harm our business.

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

Unregistered Sales of Equity Securities

None

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

The exhibits filed or furnished as part of this Quarterly Report on Form 10-Q are set forth on the Exhibit Index, below.

Exhibit Number	Description	Form	File No.	Exhibit Filing Date	Exhibit No.	Filed/Furnished Herewith
10.1†^	Purchase Agreement, dated June 21, 2023, between the Registrant and an affiliate of Blackstone Life Sciences.					X
10.2	Consent and Fifth Amendment to Loan and Security Agreement among Oxford Finance LLC, the Lenders (as defined in the certain Loan and Security Agreement, dated as of February 28, 2020) and the Registrant.					X
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1*	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2*	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
101.INS	Inline XBRL Instance Document - The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document					X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document					X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document					X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document					X
104	The cover page from this Quarterly Report on Form 10-Q for the quarter ended June 30, 2023, formatted in Inline XBRL and contained in Exhibit 101.					X

* This certification is deemed not filed for purposes of section 18 of the Exchange Act or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act.
† Registrant has omitted portions of the exhibit as permitted under Item 601(b)(10) of Regulations S-K.
^Registrant has omitted schedules and exhibits pursuant to Item 601(a)(5) of Regulation S-K. The Registrant agrees to furnish supplementally a copy of the omitted schedules and exhibits to the SEC upon request.

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.

SUTRO BIOPHARMA, INC.

Date: August 10, 2023

By: /s/ William J. Newell
William J. Newell
Chief Executive Officer

Date: August 10, 2023

By: /s/ Edward C. Albini
Edward C. Albini
Chief Financial Officer

Confidential

Execution Version

Exhibit 10.1

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [*], HAS BEEN OMITTED BECAUSE IT IS NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO SUTRO BIOPHARMA, INC. IF PUBLICLY DISCLOSED.

PURCHASE AND SALE AGREEMENT

dated as of June 21, 2023

between

SUTRO BIOPHARMA, INC.

and

BXLS V – VAULT L.P.

Table of Contents

PURCHASE AND SALE AGREEMENT

This PURCHASE AND SALE AGREEMENT (this "Agreement") dated as of June 21, 2023 is between Sutro Biopharma, Inc., a Delaware corporation ("Seller"), and BXLS V – Vault L.P., a Delaware limited partnership ("Purchaser"). Purchaser and Seller are sometimes individually referred to herein as a "Party" and are sometimes collectively referred to herein as the "Parties."

W I T N E S E T H :

WHEREAS, Seller has the right to receive royalties based on Net Sales of the Royalty Products (as defined below) under the Vaxcyte License Agreement (as defined below); and

WHEREAS, Seller desires to sell, assign, transfer, convey and grant to Purchaser, and Purchaser desires to purchase, acquire and accept from Seller, the Purchased Assets (as defined below), upon and subject to the terms and conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the premises and the mutual agreements, representations and warranties set forth herein and of other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties covenant and agree as follows:

ARTICLE I
DEFINED TERMS AND RULES OF CONSTRUCTION

Section 1.1 Defined Terms. The following terms, as used herein, shall have the following respective meanings:

"Action" means any claim, action, cause of action, suit, litigation, demand, charge, summons, arbitration, mediation, investigation, opposition, interference, examination, hearing, complaint, or other legal proceeding (whether sounding in statute, contract, tort or otherwise, whether administrative, civil or criminal, and whether brought at law or in equity).

"Affiliate" means, with respect to any designated Person, any other Person that, directly or indirectly, controls, is controlled by or is under common control with such designated Person. For purposes of this definition, "control" of a Person means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise, and the terms "controlled" and "controlling" have meanings correlative to the foregoing.

"Agreement" has the meaning set forth in the preamble.

"Bankruptcy Code" means Title 11 of the United States Code.

"Bill of Sale" means that certain bill of sale, dated as of the Closing Date, executed by Seller and Purchaser, in the form attached hereto as Exhibit A.

"Business Day" means any day that is not a Saturday, Sunday or other day on which commercial banks in New York City are authorized or required by applicable Law to remain closed. For the avoidance of doubt, solely with respect to any notice or other communication required to be given or delivered hereunder, limitations on the operations of commercial banks due to the outbreak of a contagious disease, epidemic or pandemic (including COVID-19), or any quarantine, shelter-in-place or similar or related directive, shall not prevent a day that would otherwise be a Business Day hereunder from so being a Business Day.

"Calendar Quarter" has the meaning set forth in Section 1.2 of the Vaxcyte License Agreement.

"[*]" means [*] a wholly-owned subsidiary of [*]

"[*] Letter Agreement" means that certain [*] letter agreement, by and between Seller and Licensee, dated December 19, 2022.

"Closing" has the meaning set forth in Section 6.1.

"Closing Date" has the meaning set forth in Section 6.1.

"Code" means the U.S. Internal Revenue Code of 1986, as amended, and the regulations thereunder.

"Competitive Infringement" means the infringement or violation of any Sutro Patents by any Person that is exploiting a product that is competitive with a Royalty Product.

"Confidential Information" has the meaning set forth in Section 8.1.

"[*]" means [*].

"Data Room" means, collectively, the virtual data room established by Seller as of [*]on [*] and made available to Purchaser via [*].

"Disclosing Party" has the meaning set forth in Section 8.1.

"Disputes" has the meaning set forth in Section 3.9(c).

"End Date" has the meaning set forth in Section 9.1(a)(i).

"Escrow Account" has the meaning set forth in Section 5.5(b).

"Escrow Agent" has the meaning set forth in Section 5.5(b).

"Escrow Agreement" has the meaning set forth in Section 5.5(b).

"Excluded Assets" has the meaning set forth in Section 2.4.

"Excluded Liabilities and Obligations" has the meaning set forth in Section 2.3.

"Excluded Payments" means (a) the Retained Revenue Interest in respect of the [*], (b) any upfront, milestone and other similar payments under any New Arrangement, and (c) any of the foregoing payments payable by Licensee pursuant to Section 365(n) of the Bankruptcy Code in the event of rejection of the Vaxcyte License Agreement or any other license in connection with a New Arrangement.

"Existing Confidentiality Agreement" has the meaning set forth in Section 8.3.

"FDA" means the U.S. Food and Drug Administration and any successor agency thereto.

"First Commercial Sale" means, with respect to a Pneumococcal Royalty Product, the first sale in any Major Market for end use or consumption to a third party of such Royalty Product by or on behalf of Licensee or its Affiliates, after the receipt of Regulatory Approval for such Royalty Product in such Major Market. First Commercial Sale excludes any sale or other distribution for (i) use in a clinical trial or other development activity or for compassionate or named-patient use or (ii) non-commercial evaluation, marketing or manufacturing purposes.

"GAAP" means generally accepted accounting principles in effect in the United States from time to time.

"Governmental Authority" means the government of the United States, any other nation or any political subdivision thereof, whether state or local, and any agency, authority (including supranational authority), commission, instrumentality, regulatory body, court, central bank or other Person exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government, including each Patent Office, the FDA and any other government authority in any jurisdiction.

"Indemnified Party" has the meaning set forth in Section 7.4(a).

"Indemnifying Party" has the meaning set forth in Section 7.4(a).

"Initial [*] Date" means any date on or prior to [*].

"Judgment" means any judgment, order, writ, assessment, ruling, verdict, injunction, stipulation, citation, award or decree of any nature.

"Knowledge of Purchaser" means, (a) for purposes of Article IV, the actual knowledge, after due inquiry (internal to Purchaser), as of the date of this Agreement, of any of the officers of Purchaser identified on Schedule 1.1(a), and (b) for all other purposes of this Agreement, the actual knowledge, after due inquiry, as of the applicable time, of any of the officers of Purchaser identified on Schedule 1.1(a) or any successor to any such officer holding the same or substantially similar officer position at such time.

"Knowledge of Seller" means, (a) for purposes of Article III, the actual knowledge, after due inquiry (internal to Seller), as of the date of this Agreement, of any of the officers of Seller identified on Schedule 1.1(b), and (b) for all other purposes of this Agreement, the actual knowledge, after due inquiry, as of the applicable time, of any of the officers of Seller identified

on Schedule 1.1(b) or any successor to any such officer holding the same or substantially similar officer position at such time.

"Law" means, with respect to any Person, all laws (including common law), statutes, rules, regulations and orders of Governmental Authorities applicable to such Person or any of its properties or assets.

"License Agreements" means the Stanford License Agreement and the Vaxcyte License Agreement.

"Licensed Sutro Patents" means those Sutro Patents set forth on Exhibit C hereto that are controlled, but not owned, by Seller or its Affiliates pursuant to a license agreement with a third party.

"Licensee" means Vaxcyte, Inc., a Delaware corporation, and its successors and permitted assigns.

"Licensee Instruction" means the instruction letter to Licensee, in the form attached hereto as Exhibit D.

"Licensee Letter Agreement" means the letter agreement by and among Seller and Licensee in the form attached hereto as Exhibit E.

"Lien" means any security interest, mortgage, pledge, hypothecation, assignment, deposit arrangement, encumbrance, lien (statutory or otherwise), option, right of first offer or first refusal, charge against or interest in property or other priority or preferential arrangement of any kind or nature whatsoever, in each case to secure payment of a debt or performance of an obligation, including any conditional sale or any sale with recourse.

"Loss" means any loss, assessment, Tax, cause of action, claim, charge, cost, expense, fine, Judgment, liability, obligation, penalty, or amounts paid in settlement (in each case, including expenses of investigation and attorneys' fees).

"Major Market" means each of the [*].

"Maintenance Market" means each of [*].

"Manufacturing Agreement" means, as applicable, either or both (i) the Manufacturing Option Letter Agreement or (ii) the Manufacturing Rights Agreement.

"Manufacturing Option Letter Agreement" means that certain Option on Extract Rights, dated December 19, 2022, between Seller and Licensee, as amended, and the [*] Letter Agreement.

"Manufacturing Rights Agreement" means that certain Manufacturing Rights Agreement, between Seller and Licensee, contemplated to be entered into pursuant to the Manufacturing Option Letter Agreement, as amended. For the avoidance of doubt, the Manufacturing Rights Agreement must be as Mutually Agreed.

"Material Adverse Effect" means (a) any material adverse change, or material adverse effect considered individually or in the aggregate on: (i) the legality, validity or enforceability of any of the Transaction Documents or the Vaxcyte License Agreement, (ii) the rights of Seller under, or the right or ability of Seller to perform its obligations under, (A) any of the Transaction Documents, (B) the Vaxcyte License Agreement, or (C) any of the Related Agreements, but only to the extent affecting the right of Seller to perform its obligations under the Vaxcyte License Agreement or otherwise pertaining to the Purchased Assets, (iii) the right or ability of Licensee to perform its obligations under the Vaxcyte License Agreement, (iv) the rights or remedies of Purchaser under any of the Transaction Documents, including the right of Purchaser to receive any of the Purchased Assets, or (v) the Sutro Patents or (b) an adverse effect in any material respect on the timing, amount, value or duration of the payments to be made to Purchaser in respect of any portion of the Royalty, or the Purchased Assets, or the right of Purchaser to receive such payments.

"Milestone Payment" has the meaning set forth in Section 2.2(b).

"Milestone Payment Event" has the meaning set forth in Section 2.2(b).

"Mutually Agreed" means:

i. for matters that (A) relate to the Royalty in any material respect, or (B) would reasonably be expected to result in a Material Adverse Effect, Seller shall take, or refrain from taking, such reasonable actions (in each case, unless prohibited under the License Agreements) in respect of each such matter as are reasonably instructed by Purchaser;

ii. for matters that (A) do not relate to the Royalty, and (B) would not reasonably be expected to result in a Material Adverse Effect, Seller shall have the right to take, or refrain from taking, such actions (in each case, unless prohibited under the License Agreements) in respect of each such matter as Seller, acting reasonably, deems appropriate; and

iii. for all other matters under the License Agreement that do not meet the criteria set forth in clauses (i) or (ii) above, the Seller shall take, or refrain from taking, actions (in each case, unless prohibited under the License Agreements) in respect of each such matter as Seller and Purchaser, each acting reasonably, mutually agree.

"Net Sales" has the meaning set forth in Section 1.9 of the Vaxcyte License Agreement.

"New Arrangement" has the meaning set forth in Section 5.7(e)(ii).

"Non-Warranting Parties" has the meaning set forth in Section 10.5(a).

"[*] Date" means any date on or following [*].

"Patent Office" means the applicable patent office, including the United States Patent and Trademark Office and any comparable foreign patent office, for any Sutro Patents.

"Patents" has the meaning set forth in Section 1.11 of the Vaxcyte License Agreement.

"Permitted Liens" means any (a) mechanic's, materialmen's, and similar Liens for amounts not yet due and payable, (b) statutory Liens for taxes, assessments or governmental charges or levies not yet due and payable or that the taxpayer is contesting in good faith, (c) any Liens created, permitted or required by this Agreement in favor of Purchaser or its Affiliates, (d) pledges or deposits in the ordinary course of business in connection with workers' compensation, unemployment insurance and other social security legislation, (e) deposits to secure the performance of bids, trade contracts and leases (other than indebtedness), statutory obligations, surety and appeal bonds, indemnity and performance bonds and other obligations of a like nature incurred in the ordinary course of business, (f) normal and customary banker's Liens and rights of setoff upon deposits of cash in favor of banks or other depository institutions with respect to the deposit accounts for which such cash is maintained with such banks or other depository institutions, (g) Liens created in favor of Purchaser by the Transaction Documents, (h) any licenses granted to Licensee pursuant to the Vaxcyte License Agreement, and (i) non-exclusive sublicenses granted by Licensee to third party contractors pursuant to the Vaxcyte License Agreement, for the sole purpose of performing any activity on such Licensee's behalf in connection with Licensee's exercise of any of its rights granted under the Vaxcyte License Agreement, where such activity is to be performed at the direction and control and for the sole benefit of Licensee, its Affiliates, or its sublicensees.

"Permitted Tax Withholding" has the meaning set forth in Section 5.13(c).

"Person" means any natural person, firm, corporation, limited liability company, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, Governmental Authority or any other legal entity, including public bodies, whether acting in an individual, fiduciary or other capacity.

"Pneumococcal Royalty Products" means any (and all) Vaccine Composition [*].

"Proceeds" means any amounts actually recovered or received by Seller (including, for the avoidance of doubt, damages of any kind including punitive damages) as a result of any settlement or resolution of any Actions or disputes related to the Royalty or Royalty Products (it being understood that damages of any kind, including punitive damages, awarded in a dispute involving any Royalty Product shall be considered as related to the Royalty Products), except for any amounts that are permitted to be used by this Agreement or the Vaxcyte License Agreement and that are actually used to reimburse or indemnify Licensee or Seller for costs, expenses, legal fees or other fees relating to such Actions or dispute. For clarity, Proceeds shall include any amounts actually recovered or received by Seller as an equitable remedy or quasi-contractual remedy pursuant to any Action related to the Purchased Revenue Interest.

"Purchase Price" has the meaning set forth in Section 2.2(b).

"Purchased Assets" means (a) the Purchased Revenue Interest, (b) (i) the Proceeds payable to Purchaser in accordance with this Agreement in respect of the Pneumococcal Royalty Products or any Royalty related thereto and (ii) the Purchaser Applicable Percentage of the Proceeds payable to Purchaser in accordance with this Agreement in respect of the [*] or any Royalty related thereto, (c) all proceeds (as defined under UCC) of any of the foregoing, (d) any interest on any amounts referred to in the immediately preceding clauses payable by Licensee under Section 6.9 of the

Vaxcyte License Agreement, (e) to the extent payable by Seller in lieu of any portion of the Purchased Revenue Interest and to the extent Seller commercializes any Royalty Product in accordance with Section 5.7(e) following termination of the Vaxcyte License Agreement, the Sutro Commercialization Royalty, (f) any payment made in lieu of any amounts referred to in the immediately preceding clauses, whether under the Vaxcyte License Agreement or otherwise (and whether at law or in equity), and (g) any of the foregoing payments payable by Licensee pursuant to Section 365(n) of the Bankruptcy Code in the event of rejection of the Vaxcyte License Agreement or any other license in connection with a New Arrangement.

"Purchased Revenue Interest" means (a) with respect to the Pneumococcal Royalty Products, the Royalty multiplied by [*] ([*]%) and (b) [*], the Royalty multiplied by the [*].

"Purchaser" has the meaning set forth in the preamble.

"Purchaser Account" means the account set forth on Exhibit F or such other account as may be designated by Purchaser in writing from time to time.

"Purchaser Applicable Percentage" means, with respect to the [*] and Purchaser's interest in the Royalty in respect thereto: [*]

"Purchaser Fundamental Representations" means the representations and warranties contained in Section 4.1 (Organization), Section 4.2 (No Conflicts), Section 4.3 (Authorization), and Section 4.8 (No Brokers' Fees).

"Purchaser Indemnified Party" has the meaning set forth in Section 7.1.

"Receiving Party" has the meaning set forth in Section 8.1.

"Regulatory Approval" shall mean all approvals necessary for the manufacture, marketing, importation and sale of a Royalty Product in a Major Market, including satisfaction of all applicable regulatory and notification requirements.

"Related Agreements" has the meaning set forth in the definition of "Relevant Obligations."

"Relevant Obligations" means all obligations of Seller or any of its Affiliates under any of (a) the License Agreements and (b) the Manufacturing Agreement ((a) – (b), each a "Related Agreement" and collectively, the "Related Agreements").

"Representatives" means, collectively, with respect to any Person, the trustees, directors, board members, members, partners, managers, officers, employees, agents, advisors or other representatives (including attorneys, accountants, consultants, scientists and financial advisors) of such Person.

"Retained Revenue Interest" means, [*].

"[*]" means [*]

"Rights Transfer Event" means, with respect to any Excluded Payments, (i) any sale, assignment or other transfer of all or a portion of the Seller's and/or its Affiliates' right, title and interest in, to and under such Excluded Payments, (ii) any royalty or other monetization transaction, in each case secured by a Lien on, or providing for payments from and based on the cash flows generated by, the Seller's and/or its Affiliates' right, title and interest in such Excluded Payments, or (iii) any debt financing where the Excluded Payments, the Sutro Patents, or any "proceeds" (as defined in the UCC) of any of the foregoing constitute a material portion of the collateral, including if such collateral is combined with similar collateral for other products, product candidates, intellectual property and proceeds; *provided* that the following shall not be a Rights Transfer Event: a sale or transfer contemplated in clause (i) to an Affiliate in accordance with Section 10.3 so long as such Affiliate does not engage in a Rights Transfer Event.

"Royalty" means, on a country-by-country and Royalty Product-by-Royalty Product basis, all amounts due, paid or payable to the Seller (i) in respect of Net Sales of any and all Royalty Products under Article 6 of the Vaxcyte License Agreement, after giving effect to all Royalty Reductions applicable thereto, and (ii) following any termination of the Vaxcyte License Agreement, for all royalties in respect of Net Sales of Royalty Products (after giving effect to all Royalty Reductions applicable thereto) pursuant to a New Arrangement, as if the Vaxcyte License Agreement were still in effect, and (iii) any of the foregoing payments payable by Licensee pursuant to Section 365(n) of the Bankruptcy Code in the event of rejection of the Vaxcyte License Agreement or any other license in connection with a New Arrangement. For the avoidance of doubt, the Royalty shall exclude any and all Excluded Payments.

"Royalty Product" means each Pneumococcal Royalty Product and, [*].

"Royalty Reduction" means any adjustments, modifications, credits, offsets, reductions or deductions to Royalty payments made under the Vaxcyte License Agreement pursuant to and expressly permitted by Section 6.2, Section 6.3 and Section 6.4 of the Vaxcyte License Agreement, solely with respect to the applicable Royalty Product or under any New Arrangement.

"Royalty Reports" means, with respect to each Calendar Quarter, the reports required to be prepared and delivered to Seller pursuant to Section 6.7 of the Vaxcyte License Agreement.

"[*]" means [*].

"Royalty Reporting Trigger Date" means [*].

"SEC" means the U.S. Securities and Exchange Commission.

"Seller" has the meaning set forth in the preamble.

"Seller Account" means the account set forth on Exhibit G hereto or such other account as may be designated by Seller in writing from time to time.

"Seller Applicable Percentage" means, [*]

"Seller Fundamental Representations" means the representations and warranties contained in Section 3.1 (Existence; Organization), Section 3.2 (No Conflicts), Section 3.3 (Authorization;

Enforceability), Section 3.4 (Ownership), Section 3.7 (No Brokers' Fees), Section 3.9(a), Section 3.9(f), Section 3.9(g), Section 3.9(h), the first sentence of Section 3.9(i), Section 3.10(a), Section 3.10(b), Section 3.10(d), Section 3.10(e), Section 3.10(f), Section 3.10(i), Section 3.10(j), Section 3.10(n), Section 3.11(a), Section 3.11(c), Section 3.11(e), Section 3.11(f), Section 3.11(g), Section 3.13 (UCC Matters), Section 3.18 (Solvency) and Section 3.19 (Tax Matters).

"Seller Indemnified Party" has the meaning set forth in Section 7.2.

"Seller SEC Documents" has the meaning set forth in Section 3.15.

"Seller Tax Action" has the meaning set forth in Section 5.13(d).

"Set-Off" means any right of set-off, counterclaim, credit, reduction or deduction by contract or otherwise, other than a Royalty Reduction.

"Solvent" means, with respect to any Person on any date of determination, that on such date (a) the fair value of the assets of such Person is greater than the total amount of liabilities, including contingent liabilities, of such Person, (b) the present fair saleable value of the assets of such Person is not less than the amount that will be required to pay the probable liability of such Person on its debts as they become absolute and matured, (c) such Person does not intend to, and does not believe that it will, incur debts or liabilities beyond such Person's ability to pay such debts and liabilities as they mature, and (d) such Person is able to pay its debts and liabilities, contingent obligations and other commitments as they mature in the ordinary course of business. The amount of contingent obligations or contingent liabilities, as applicable, at any time shall be computed as the amount that, in light of all the facts and circumstances existing at such time, represents the amount that can reasonably be expected to become an actual or matured liability or obligation, as applicable.

"Stanford License Agreement" means that certain Amended and Restated Exclusive Agreement, by and between Seller and The Board of Trustees of the Leland Stanford Junior University ("Stanford"), dated October 3, 2007, as amended prior to, on or after the Closing Date.

"Supply Agreements" means the Vaxcyte Supply Agreement and the Manufacturing Option Letter Agreement.

"Supply Product" means any "Product", as such term is defined in Section 1.14 of the Vaxcyte Supply Agreement.

"Sutro Commercialization Royalty" means, for each calendar year following termination of the Vaxcyte License Agreement (in its entirety or with respect to one or more Royalty Products) and an election by Seller, pursuant to Section 5.7(e), to commercialize a Royalty Product itself in all or some portion of the Territory or under a New Arrangement that consists of a profit share for Seller with respect to a Royalty Product in all or some portion of the Territory, on a country-by-country and Royalty Product-by-Royalty Product basis, an amount equal to (a) [*] ([*]%) of Net Sales of Royalty Products intended for use in humans made by or on behalf of Seller or any of its Affiliates or sublicensees or profit share partners in the Territory or such portion of the Territory, and (b) [*] ([*]%) of Net Sales of Royalty Products intended for use in animals made by or on behalf of Seller or any of its Affiliates or sublicensees or profit share partners in the Territory or

such portion of the Territory. For purposes of this definition, the definition of "Net Sales" is deemed to be amended to replace "SutroVax" with "Seller" in each place that it appears.

"Sutro Know-How" has the meaning set forth in Section 1.22 of the Vaxcyte License Agreement.

"Sutro Patents" has the meaning set forth in Section 1.23 of the Vaxcyte License Agreement.

"Sutro Technology" means the Sutro Patents and the Sutro Know-How.

"SVB Loan Agreement" means that certain Loan and Security Agreement, dated February 28, 2020, by and among Seller, Oxford Finance LLC, Silicon Valley Bank and such other parties listed on Schedule 1.1 thereto, as amended prior to, on or after the Closing Date, including by the SVB Loan Consent.

"SVB Loan Consent" means that certain Consent and Fifth Amendment to Loan and Security Agreement, dated on or about the Effective Date, by and among Seller, Oxford Finance LLC, Silicon Valley Bank and such other parties listed on Schedule 1.1 thereto.

"Tax" or "Taxes" means all taxes, charges, fees, levies or other assessments (whether U.S. federal, state, local or foreign) based upon or measured by income and any other tax whatsoever, including gross receipts, profits, premium, sales, use, occupation, value added, ad valorem, transfer, franchise, withholding, payroll, employment, unemployment, excise, windfall profits, transfer, license, occupation or property taxes, together with any interest, penalties or additions to tax resulting from, attributable to, or incurred in connection with any such taxes or any contest or dispute thereof.

"Territory" has the meaning set forth in Section 1.28 of the Vaxcyte License Agreement.

"Third Party Claim" has the meaning set forth in Section 7.4(a).

"[*] Date" means [*]Business Days following the date [*].

"Transaction Documents" means this Agreement, the Bill of Sale, the SVB Loan Consent, the Licensee Letter Agreement, the Escrow Agreement and the Licensee Instruction.

"U.S." or "United States" means the United States of America, each territory thereof and the District of Columbia.

"UCC" means the Uniform Commercial Code as in effect from time to time in the State of New York; *provided*, that, if, with respect to any financing statement or by reason of any provisions of applicable Law, the perfection or the effect of perfection or non-perfection of the back-up security interest or any portion thereof granted pursuant to Section 2.1(b) is governed by the Uniform Commercial Code as in effect in a jurisdiction of the United States other than the State of New York, then "UCC" means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions of this Agreement and any financing statement relating to such perfection or effect of perfection or non-perfection.

"Upfront Purchase Price" means $140,000,000.

"Vaccine Composition" has the meaning set forth in Section 1.32 of the Vaxcyte License Agreement.

"Valid Claim" has the meaning set forth in Section 1.33 of the Vaxcyte License Agreement.

"VAX-24" means that certain 24-valent pneumococcal conjugate vaccine candidate known by the name *VAX-24*, which, as of the date hereof, is being developed by Licensee.

"VAX-31" means that certain 31-valent pneumococcal conjugate vaccine candidate known by the name *VAX-31*, which, as of the date hereof, is being developed by Licensee.

"Vaxcyte License Agreement" means that certain Amended and Restated SutroVax Agreement, dated October 12, 2015, by and between Seller and Licensee [*].

"Vaxcyte Supply Agreement" means that certain Supply Agreement, dated May 29, 2018, by and between Seller and Licensee [*].

Section 1.2 Rules of Construction.

(a) Unless the context otherwise requires, in this Agreement:

(i) a term has the meaning assigned to it and an accounting term not otherwise defined has the meaning assigned to it in accordance with GAAP;

(ii) unless otherwise defined, all terms that are defined in the UCC shall have the meanings stated in the UCC;

(iii) words of the masculine, feminine or neuter gender shall mean and include the correlative words of other genders;

(iv) the definitions of terms shall apply equally to the singular and plural forms of the terms defined;

(v) references to the term "or" will be interpreted in the inclusive sense commonly associated with the term "and/or";

(vi) the terms "include", "including" and similar terms shall be construed as if followed by the phrase "without limitation";

(vii) unless otherwise specified, references to an agreement or other document include references to such agreement or document as from time to time amended, restated, reformed, supplemented or otherwise modified in accordance with the terms thereof (subject to any restrictions on such amendments, restatements, reformations, supplements or modifications set forth herein) and include any annexes, exhibits and schedules attached thereto;

(viii) references to any Law shall include such Law as from time to time in effect, including any amendment, modification, codification, replacement or reenactment thereof or any substitution therefor; *provided* that, for purposes of Article III and Article IV, reference to a Law shall mean such Law as in effect as of the date hereof;

(ix) references to any Person shall be construed to include such Person's successors and permitted assigns (subject to any restrictions on assignment, transfer or delegation set forth herein or in any of the other Transaction Documents), and any reference to a Person in a particular capacity excludes such Person in other capacities;

(x) the word "will" shall be construed to have the same meaning and effect as the word "shall";

(xi) the words "hereof", "herein", "hereunder" and similar terms when used in this Agreement shall refer to this Agreement as a whole and not to any particular provision hereof, and Article, Section and Exhibit references herein are references to Articles and Sections of, and Exhibits to, this Agreement unless otherwise specified;

(xii) in the computation of a period of time from a specified date to a later specified date, the word "from" means "from and including" and each of the words "to" and "until" means "to but excluding"; and

(xiii) where any payment is to be made, any funds are to be applied or any calculation is to be made under this Agreement on a day that is not a Business Day, unless this Agreement otherwise provides, such payment shall be made, such funds shall be applied and such calculation shall be made on the succeeding Business Day, and payments shall be adjusted accordingly.

(b) The Parties have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the parties and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any of the provisions of this Agreement.

ARTICLE II
PURCHASE AND SALE OF THE PURCHASED ASSETS

Section 2.1 Purchase and Sale.

(a) Upon the terms and subject to the conditions of this Agreement, upon the payment of the Upfront Purchase Price at the Closing, Seller shall sell, assign, transfer and convey to Purchaser, and Purchaser shall purchase, acquire and accept from Seller, all of Seller's right, title and interest in, to and under the Purchased Assets, free and clear of any and all Liens, other than any Liens under clause (g) of the definition of Permitted Liens. Without limiting the foregoing, it is understood and agreed that Purchaser shall not, by purchase of the Purchased Assets, acquire any assets, rights or obligations of Seller under, or relating to, the Vaxcyte License Agreement, the Stanford License Agreement, the Related Agreements, or any New Arrangement other than the Purchased Assets and any rights expressly specified in this Agreement.

(b) It is the intention of the Parties that the sale, transfer, assignment and conveyance contemplated by this Agreement be, and is, a true, complete, absolute and irrevocable sale, transfer, assignment and conveyance by Seller to Purchaser of all of Seller's right, title and interest in, to and under the Purchased Assets free and clear of all Liens, other than any Liens under clause (g) of the definition of Permitted Liens. Seller hereby disclaims any ownership interests (beneficial or otherwise) in the Purchased Assets. Neither Seller nor Purchaser intends the transactions contemplated by this Agreement to be, or for any purpose characterized as, a loan from Purchaser to Seller or a pledge, a security interest, a financing transaction or a borrowing. Each of Seller and Purchaser hereby waives, to the maximum extent permitted by applicable Law, any right to contest or otherwise assert that this Agreement does not constitute a true, complete, absolute and irrevocable sale, transfer, assignment and conveyance by Seller to Purchaser of all of Seller's right, title and interest in, to and under the Purchased Assets under applicable Law, which waiver shall, to the maximum extent permitted by applicable Law, be enforceable against Seller in any bankruptcy or insolvency proceeding relating to Seller. Not in derogation of the foregoing statement of the intent of the Parties in this regard, and for the purposes of providing additional assurance to Purchaser in the event that, despite the intent of the Parties, the sale, transfer, assignment and conveyance contemplated hereby is hereafter held not to be a sale or such sale is for any reason deemed ineffective or unenforceable, Seller does hereby grant to Purchaser, as security for the payment of amounts to Purchaser equal to the Purchased Assets as it becomes due and payable and as may be necessary to perfect the sale of the Purchased Assets to Purchaser, a security interest in, to and under all right, title and interest of Seller, in, to and under the Purchased Assets and any "proceeds" (as such term is defined in the UCC) thereof, and Seller does hereby authorize Purchaser, from and after the Closing, to file such financing statements (and continuation statements with respect to such financing statements when applicable) in such manner and such jurisdictions as are necessary or appropriate to perfect such security interest and such sale.

(c) The Parties agree that, notwithstanding anything herein to the contrary, except as may be limited by applicable Law or by general principles of equity (whether considered in a proceeding in equity or at law), Seller shall not enter into any contracts or arrangement or otherwise take any action or fail to act in a manner that would, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect or materially and adversely affect the Purchaser's ownership of the Purchased Assets.

Section 2.2 Purchase Price. Upon the terms and subject to the conditions of this Agreement, the purchase price to be paid by Purchaser in full consideration for the sale, assignment, transfer and conveyance of the Purchased Assets consists of the following amounts:

(a) the Upfront Purchase Price, payable in accordance with Section 6.2(a);

(b) one-time milestone payments in the event that the [*] (each, a "Milestone Payment Event"), in the amount of the milestone payment set forth in Table 2.2(b) corresponding to such aggregate threshold (each, a "Milestone Payment" and to the extent each Milestone Payment or any Milestone Payment is actually paid to Seller, together with the Upfront Purchase Price, the "Purchase Price"), in cash, payable in accordance with Section 6.2(b) and subject to Section 2.2(c). With respect to each of the Milestone Payment Events set forth in Table 2.2(b), the Purchaser shall notify the Seller in writing promptly after the Purchaser is aware of the

achievement of any such Milestone Payment Events. Each Milestone Payment is payable only once.

Table 2.2(b) – Milestone Payments

Milestone Payment Event	*Milestone Payment*
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]

(c) [*] .

Section 2.3 No Assumed Obligations. Notwithstanding any provision in this Agreement or any other writing to the contrary, Purchaser is purchasing, acquiring and accepting only the Purchased Assets and is not assuming any liability or obligation of Seller or any of Seller's Affiliates of whatever nature, whether presently in existence or arising or asserted hereafter (including any liability or obligation of Seller under the Vaxcyte License Agreement, the Stanford License Agreement, any Related Agreement, any New Arrangement or otherwise). All such liabilities and obligations shall be retained by and remain liabilities and obligations of Seller or Seller's Affiliates, as the case may be (the "Excluded Liabilities and Obligations").

Section 2.4 Excluded Assets. Other than the Purchased Assets, Purchaser does not, by purchase, acquisition or acceptance of the right, title or interest granted hereunder or otherwise pursuant to any of the Transaction Documents, purchase, acquire or accept any assets or contract rights of Seller, including under the Related Agreements (collectively, the "Excluded Assets").

ARTICLE III
REPRESENTATIONS AND WARRANTIES OF SELLER

Except as set forth on, or disclosed in, Exhibit H (the "Disclosure Schedules"), Seller hereby represents and warrants to Purchaser as of the date hereof and as of the Closing Date as follows:

Section 3.1 Existence; Organization. Seller is a corporation duly organized, validly existing and in good standing under the Laws of Delaware. Seller is duly licensed or qualified to do business in each jurisdiction in which the nature of the business conducted by it or the character or location of the properties and assets owned, leased or operated by it makes such licensing or qualification necessary, except where the failure to be so licensed or qualified has not and would not reasonably be expected to have, either individually or in the aggregate, a Material Adverse Effect. Seller has no Affiliates as of the Closing Date.

Section 3.2 No Conflicts. The execution, delivery and performance by Seller of the Transaction Documents and the consummation of the transactions contemplated thereby do not

and will not (a) give rise to any right of termination, cancellation or acceleration of any right or obligation of Seller, Licensee or any sublicensee under the Vaxcyte License Agreement, (b) constitute a breach or violation of or default under (i) the organizational documents of Seller, (ii) any Law or Judgment applicable to Seller, (iii) the Vaxcyte License Agreement, or (iv) any contract (other than the Vaxcyte License Agreement), including any of the Related Agreements, to which Seller is a party or by which Seller is bound, except, in the case of clauses (b)(ii) and (b)(iv), for such breaches, violations and defaults that, individually or in the aggregate, would not reasonably be expected to result in a Material Adverse Effect, or (c) result in the creation or imposition of any Lien on any Royalty Products, any Sutro Patents, any Related Agreements or the Purchased Assets.

Section 3.3 Authorization; Enforceability. Seller has all necessary corporate power and authority to (a) conduct its affairs as currently conducted, including to exercise its rights and perform its obligations under the Vaxcyte License Agreement and Stanford License Agreement and (b) execute, deliver and perform the Transaction Documents and to consummate the transactions contemplated thereby. The execution, delivery and performance of the Transaction Documents, and the consummation of the transactions contemplated thereby, have been duly authorized by Seller. Each of the Transaction Documents has been duly executed and delivered by Seller and constitutes the legal, valid and binding obligation of Seller, enforceable against Seller in accordance with its terms, except as may be limited by general principles of equity (regardless of whether considered in a proceeding at law or in equity) and by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally, general equitable principles and principles of public policy.

Section 3.4 Ownership. Seller has good and valid title to the Purchased Assets, free and clear of all Liens (other than any Liens under clause (g) of the definition of Permitted Liens), and is the exclusive owner of the entire right, title (legal and equitable) and interest in the Purchased Assets. At the Closing, Purchaser will have acquired, subject to the terms and conditions set forth in this Agreement, good and valid title to the Purchased Assets, free and clear of all Liens (other than any Liens under clause (g) of the definition of Permitted Liens). Prior to giving effect to the transactions contemplated by the Transaction Documents, Seller is the sole Person with rights to receive the Purchased Assets.

Section 3.5 Governmental and Third Party Authorizations. The execution, delivery and performance by Seller of the Transaction Documents and the consummation of any of the transactions contemplated thereby do not require any consent, approval, license, order, authorization or declaration from, notice to, action or registration by or filing with any Governmental Authority or any other Person, except for (a) a Current Report on Form 8-K by Seller with the U.S. Securities and Exchange Commission, (b) the UCC financing statements contemplated by Section 2.1(b), (c) those previously obtained and (d) such consents, the failure of which to be obtained or made, would not reasonably be expected to have a Material Adverse Effect.

Section 3.6 No Litigation. There is no Action pending or, to the Knowledge of Seller, threatened, by or against Seller (a) that, individually or in the aggregate, (i) challenges or seeks to prevent or delay the consummation of any of the transactions contemplated by any of the Transaction Documents to which Seller is a party or (ii) would reasonably be expected to result in a Material Adverse Effect, (b) in respect of any Related Agreement or the Purchased Assets.

Section 3.7 No Brokers' Fees. Seller has not taken any action that would entitle any Person or entity other than Cowen and Company, LLC to any commission or broker's fee in connection with the transactions contemplated by this Agreement. There is no Person or entity retained by Seller entitled to any commission or broker's fee from Purchaser in connection with the transactions contemplated by this Agreement.

Section 3.8 Compliance with Laws. Seller (a) has not violated, nor is it in violation of, has not been given written notice of any violation of, and, to the Knowledge of Seller, is not under investigation with respect to nor has it been threatened to be charged with, any violation of, any applicable Law or any Judgment, permit or license granted, issued or entered by any Governmental Authority, and (b) is not subject to any Judgment issued or entered by any Governmental Authority; in each case, that would reasonably be expected to have a Material Adverse Effect.

Section 3.9 Intellectual Property Matters.

(a) Exhibit C sets forth an accurate and complete list of the Sutro Patents. For each of such Sutro Patents, Seller has indicated (i) the jurisdictions in which such Patent is pending, allowed, granted or issued, (ii) the patent number or patent serial number, and (iii) the owner of such Patent (which shall be to the Knowledge of Seller, in the case of owners of the Licensed Sutro Patents), and, (iv) to the Knowledge of Seller, the expiration date of such Patent.

(b) Seller, and to the Knowledge of Seller, Licensee and Stanford, has not committed any act, or failed to commit any required act, that would reasonably be expected to cause any Sutro Patents to expire prematurely, lapse or be declared invalid or unenforceable, or that estops the enforcement of such Sutro Patent against any third party. With respect to (i) any Sutro Patents for which the Seller controls the prosecution and maintenance in accordance with Section 9.1 of the Vaxcyte License Agreement, and, (ii) to the Knowledge of Seller, any other Sutro Patents, there are no unpaid maintenance or renewal fees or annuities payable to any third party that currently are overdue. No Sutro Patents have lapsed or been abandoned, cancelled, disclaimed or expired, and to the Knowledge of Seller, there is no fact, circumstance or event that would constitute a basis for any such lapse, abandonment, cancellation or expiration. To the Knowledge of Seller, each individual associated with the filing and prosecution of the Sutro Patents owned in whole or in part by Seller, including the named inventors of such Sutro Patents, has complied in all material respects with all applicable duties of candor and good faith in dealing with any Patent Office, including any duty to disclose to any Patent Office all information known by such inventors to be material to the patentability of each such Sutro Patents (including any relevant prior art), in each case, in those jurisdictions in the Territory where such duties exist.

(c) Seller has not received any written notice from Licensee, Stanford or any other Person, and to the Knowledge of Seller, there is no pending or threatened Action, opposition, interference, reexamination, reissue, inter parties review, post grant review, cancellation, notification, injunction, claim, suit, action, citation, summon, subpoena, hearing, inquiry, investigation (by the International Trade Commission or otherwise), complaint, arbitration, mediation, demand, Judgment, decree or other dispute, disagreement, proceeding or claim (collectively, "Disputes") challenging the validity, enforceability, scope, inventorship or ownership of any of the Sutro Patents or that would reasonably be expected to give rise to any Set-Off against the payments due to Seller under the Vaxcyte License Agreement. The Sutro

Patents owned by Seller, and to the Knowledge of Seller the Licensed Sutro Patents, are not subject to any outstanding injunction, Judgment, order, decree, ruling, settlement or other final disposition of a Dispute.

(d) To the Knowledge of Seller, the Sutro Patents that have been issued or granted by the applicable Patent Office are valid and enforceable. Seller has not received any written claim or written legal opinion, whether preliminary in nature or qualified in any manner, which concludes that a challenge to the validity or enforceability of any of the issued Sutro Patents may succeed. Seller has not received any claim or written notice challenging, or threatening to challenge, the ownership of, or rights of Stanford and Licensee in, to, and under or the validity or enforceability of the Sutro Patents.

(e) Seller has not received any written notice under the Vaxcyte License Agreement or Stanford License Agreement or otherwise of infringement, misappropriation, or violation of any Sutro Patent.

(f) Each of the Sutro Patents owned by Seller correctly names all of the inventors thereof, in accordance with applicable Law. Seller has not received any written notice from Licensee or any other Person, and to the Knowledge of Seller, there is no Person who is or claims to be an inventor under any of the Sutro Patents who is not a named inventor thereof, or that any Person named as an inventor of any of the Sutro Patents is not an inventor thereof. To the Knowledge of Seller, there is no reasonable basis for such a claim with respect to any of the Sutro Patents owned by Seller.

(g) To the Knowledge of Seller, there is no pending or threatened Action that claims that the development, manufacture, use, marketing, sale, offer for sale, importation or distribution of any Royalty Product or of Supply Product does or will infringe, misappropriate or violate any patent or other intellectual property rights of any other Person. Seller has not received any written notice asserting or claiming any such infringement, misappropriation, or violation in respect of any Royalty Product or Supply Product. To the Knowledge of Seller, the development, manufacture, use, marketing, sale, offer for sale, importation or distribution of any Royalty Product by Licensee, or of Supply Product by or on behalf of Seller or Licensee, does not and will not constitute an infringement, misappropriation, or violation of any patent or other intellectual property rights of any other Person.

(h) The Sutro Technology licensed (or sublicensed or optioned, as the case may be) by Seller to Licensee under the Vaxcyte License Agreement constitute all of the patents, information and materials owned by or licensed to Seller or any of Seller's Affiliates that cover the Vaccine Compositions, or the manufacture, use, or development thereof, in the Territory.

(i) Except as set forth on Exhibit C with respect to the Licensed Sutro Patents, Seller owns the entire right, title and interest, free and clear of any Liens, other than Permitted Liens, in, to and under the Sutro Patents. To the Knowledge of Seller, there are no facts that would preclude Seller from having clear title in, to and under such Sutro Patents. Other than the Licensed Sutro Patents, Seller has not in-licensed any patents or other intellectual property rights covering the manufacture, use, marketing, sale, offer for sale, importation or distribution of any Royalty Products.

(j) There are no compulsory licenses granted or, to the Knowledge of Seller, threatened to be granted under the Sutro Patents with respect to any Royalty Product or any other product that, if sold without a license, would constitute a Competitive Infringement of the Sutro Patents. To the Knowledge of Seller, no event or condition exists that would permit or require Licensee to grant any such compulsory license to any Person. Seller has not received any written notice from or on behalf of Licensee expressing an intention by Licensee to grant any such compulsory license or otherwise Set-Off any amount from the Purchased Assets because of any amount owed or claimed to be owed from Seller to Licensee.

(k) The Sutro Patents owned by Seller are not subject to the requirements of the Bayh-Dole Act, 35 USC 200-212 and 37 CFR 401.

(l) Absent the Vaxcyte License Agreement and Stanford License Agreement, the manufacture, marketing, use, sale or distribution of VAX-24 and VAX-31 in the applicable jurisdiction would infringe a Valid Claim of one or more of the Sutro Patents.

Section 3.10 Vaxcyte License Agreement.

(a) Attached hereto as Exhibit I is a true, correct and complete copy of the Vaxcyte License Agreement. Seller has provided to Purchaser in the Data Room the following: (i) the semi-annual pre-clinical, clinical and regulatory developments reports provided by Licensee to Seller pursuant to Section 7.3 of the Vaxcyte License Agreement (or, to the extent not provided, the material agendas and meeting minutes that have served to satisfy this requirement); (ii) the annual commercialization reports provided by Licensee to Seller pursuant to Section 7.3 of the Vaxcyte License Agreement, to the extent such reports have been received; and (iii) all material written notices and other material written correspondence delivered to Licensee by Seller, or by Licensee to Seller, pursuant to the Vaxcyte License Agreement, relating to, affecting or involving the Purchased Assets or the Vaxcyte License Agreement (excluding correspondence related to patents licensed under the Vaxcyte License Agreement), or that could reasonably be expected to have an adverse effect on the value of the Purchased Assets in any material respect, or that would reasonably be expected to result in a Material Adverse Effect, in each case since January 1, 2021.

(b) The Vaxcyte License Agreement is in full force and effect and is the legal, valid and binding obligation of Seller and, to the Knowledge of Seller, Licensee, enforceable against Seller and, to the Knowledge of Seller, Licensee in accordance with its terms, except as may be limited by general principles of equity (regardless of whether considered in a proceeding at law or in equity) and by applicable bankruptcy, insolvency, moratorium and other similar Laws of general application relating to or affecting creditors' rights generally. Seller has not received any written notice or, to the Knowledge of Seller, any other communication, from or on behalf of Licensee challenging or threatening to challenge the validity or enforceability of the Vaxcyte License Agreement or any obligation of Licensee thereunder, including any obligation to pay the Royalty or any other payment thereunder.

(c) Except as would not reasonably be expected to have a Material Adverse Effect, (i) Seller is not in breach or violation of or in default under the Vaxcyte License Agreement, and (ii) to the Knowledge of Seller, Licensee has not breached, and is not in violation or default under, any provision of the Vaxcyte License Agreement. Seller has not received any written

notification from Licensee alleging a breach or violation of or in default under the Vaxcyte License Agreement. To the Knowledge of Seller, no event has occurred that, upon notice or the passage of time or both, would reasonably be expected to give rise to a breach of the Vaxcyte License Agreement by Seller or Licensee in any material respect, or that would otherwise give Licensee the right to cease paying the Royalty thereunder.

(d) Seller has not granted or been granted any written waiver under the Vaxcyte License Agreement or released Licensee, in whole or in part, from any of its obligations under the Vaxcyte License Agreement. To the Knowledge of Seller, there are no waivers or modifications (or pending requests therefor) in respect of the Vaxcyte License Agreement. Since May 29, 2018 (the date of the Second Amendment), Seller has not received from Licensee any written proposal, and has not made any written proposal to Licensee, to amend or waive any provision of the Vaxcyte License Agreement [*] .

(e) To the Knowledge of Seller, no event has occurred that, upon notice or the passage of time or both, would reasonably be expected to give Seller or Licensee the right to terminate the Vaxcyte License Agreement. Seller has not received any written notice of an intention by Licensee to terminate or breach the Vaxcyte License Agreement, in whole or in part. Seller has no intention of terminating the Vaxcyte License Agreement and has not given Licensee any notice of termination of the Vaxcyte License Agreement, in whole or in part.

(f) Neither Seller nor, to the Knowledge of Seller, Licensee has assigned, sold or transferred the Vaxcyte License Agreement or any of its rights, interests or obligations thereunder (including with respect to the Royalty) to any Person, and Seller has not consented to any such assignment by Licensee. Except as contemplated by the Transaction Documents, Seller has not assigned, sold or transferred, in whole or in part, any of Seller's right, title or interest in or to the Royalty or Purchased Assets.

(g) Seller has not received any written notice from Licensee under Section 4.3 of the Vaxcyte License Agreement, and, except for any Liens under clause (i) of the definition of Permitted Liens, to Knowledge of Seller, no sublicense has been granted by Licensee under the Vaxcyte License Agreement.

(h) Neither Seller, Stanford (acting through Seller) or Licensee has exercised its rights to conduct an audit under Section 6.8 of the Vaxcyte License Agreement.

(i) To the Knowledge of Seller, Seller has received all amounts owed to it under the Vaxcyte License Agreement, to the extent such amounts have come due.

(j) VAX-24 and VAX-31 are Pneumococcal Royalty Products.

(k) Licensee has completed all diligence milestones set forth in Exhibit C of the Vaxcyte License Agreement in accordance with Section 7.2 of the Vaxcyte License Agreement.

(l) Seller has not sent or received any written notice or, to the Knowledge of Seller, any other communication of any dispute from Licensee for resolution pursuant to Article 14 of the Vaxcyte License Agreement.

(m) To the Knowledge of Seller, there is no fact or circumstance that is existing that is expected to cause a delay in the availability of any of the supply components of VAX-24 or a delay in the timing or progression of any ongoing clinical trial of VAX-24, including the data readout with respect to any such ongoing clinical trial.

(n) There are no agreements between Seller or, to the Knowledge of Seller, Licensee with any third party or Person, and, to the Knowledge of Seller, no event has occurred that would give rise to a right of Licensee to reduce the payment of any Royalty owed to Seller pursuant to Sections 6.2, 6.3 or 6.4 of the Vaxcyte License Agreement, and to the Knowledge of Seller, there are no ongoing discussions related to any such agreements or events.

(o) Neither Seller nor Licensee has made any claim of indemnification under the Vaxcyte License Agreement.

(p) A Rights Transfer Event has not occurred.

Section 3.11 Stanford License Agreement.

(a) Attached hereto as Exhibit J is a true, correct and complete copy of the Stanford License Agreement. Seller has provided to Purchaser in the Data Room the following: (i) the annual progress report provided by Seller to Stanford pursuant to Section 6.2 of the Stanford License Agreement, (ii) the quarterly earned royalty report provided by Seller to Stanford pursuant to Section 8.1 of the Stanford License Agreement, if applicable, and (iii) all material written notices and other material written correspondence delivered to Stanford by Seller, or by Stanford to Seller, pursuant to the Stanford License Agreement, relating to, affecting or involving the Purchased Assets or the Stanford License Agreement (excluding correspondence related to patents licensed under the Stanford License Agreement), or that could reasonably be expected to have an adverse effect on the value of the Purchased Assets in any material respect, or that would reasonably be expected to result in a Material Adverse Effect, in each case since January 1, 2021.

(b) Seller has not granted any other party a sublicense pursuant to Section 4.1 of the Stanford License Agreement that conflicts with the license granted to Vaxcyte under the Vaxcyte License Agreement. Seller has not received any written notice from Stanford, and to the Knowledge of Seller, no circumstances exist, that would permit Stanford to require Seller to sublicense the rights granted to Seller under the Stanford License Agreement pursuant to Section 4.2 of the Stanford License Agreement.

(c) The Stanford License Agreement is in full force and effect and is the legal, valid and binding obligation of Seller and, to the Knowledge of Seller, Stanford, enforceable against Seller and, to the Knowledge of Seller, Stanford in accordance with its terms, except as may be limited by general principles of equity (regardless of whether considered in a proceeding at law or in equity) and by applicable bankruptcy, insolvency, moratorium and other similar Laws of general application relating to or affecting creditors' rights generally. Seller has not received any written notice or, to the Knowledge of Seller, any other communication from or on behalf of Stanford challenging or threatening to challenge the validity or enforceability of the Stanford License Agreement or any obligation of Stanford thereunder, including any obligation to pay the royalties or any other payment thereunder.

(d) Except as would not reasonably be expected to have a Material Adverse Effect, (i) Seller is not in breach or violation of or in default under the Stanford License Agreement, and (ii) to the Knowledge of Seller, Stanford has not breached, and is not in violation or default under, any provision of the Stanford License Agreement. Seller has not received any written notification from Stanford alleging a breach or violation of or in default under the Stanford License Agreement. To the Knowledge of Seller, no event has occurred that, upon notice or the passage of time or both, would reasonably be expected to give rise to a breach of the Stanford License Agreement by Seller or Stanford, which breach would reasonably be expected to result in a Material Adverse Effect, in any material respect, or that would otherwise give Seller the right to cease paying the royalty thereunder.

(e) Seller has not granted or been granted any written waiver under the Stanford License Agreement or released Stanford, in whole or in part, from any of its obligations under the Stanford License Agreement. To the Knowledge of Seller, there are no waivers or modifications (or pending requests therefor) in respect of the Stanford License Agreement. Seller has not received from Stanford any written proposal, and has not made any written proposal to Stanford, to amend or waive any provision of the Stanford License Agreement.

(f) To the Knowledge of Seller, no event has occurred that, upon notice or the passage of time or both, would reasonably be expected to give Seller or Stanford the right to terminate the Stanford License Agreement. Seller has not received any written notice of an intention by Stanford to terminate or breach the Stanford License Agreement, in whole or in part. Seller has no intention of terminating the Stanford License Agreement and has not given Stanford any notice of termination of the Stanford License Agreement, in whole or in part.

(g) Neither Seller nor, to the Knowledge of Seller, Stanford has assigned, sold or transferred the Stanford License Agreement or any of its rights, interests or obligations thereunder (including with respect to the royalty) to any Person, and Seller has not consented to any such assignment by Stanford.

(h) Neither Seller nor Stanford has exercised its rights (or obligations) to conduct an audit under Section 8.5 or 8.7 of the Stanford License Agreement.

(i) Seller has completed all diligence milestones set forth in Appendix A of the Stanford License Agreement and has paid all corresponding amounts owed to Stanford pursuant to Section 7.4 of the Stanford License Agreement. Appendix A of the Stanford License Agreement has not been amended, updated, supplemented or otherwise modified.

(j) Seller has delivered all amounts owed to Stanford under the Stanford License Agreement, to the extent such amounts have come due, including all annual license maintenance fees and royalty payments pursuant to Article 7 of the Stanford License Agreement, and Seller has not received any written notice from Stanford alleging that any amounts payable to Stanford thereunder are past due or have otherwise not been paid in full.

(k) Seller has not exercised the buy-out option pursuant to Section 7.9 of the Stanford License Agreement.

(l) Seller has not sent or received any written notice or, to the Knowledge of Seller, any other communication of any dispute from Stanford for resolution pursuant to Article 17 of the Stanford License Agreement or otherwise.

(m) Neither Seller nor Stanford has made any claim of indemnification under the Stanford License Agreement.

Section 3.12 No Other Agreements. Seller has provided to Purchaser in the Data Room true, correct and complete copies of each Related Agreement. Seller has not entered into any agreement relating to the present or future assignment, transfer, or sale of any rights in or to any portion of the Royalty. Other than the Transaction Documents, the SVB Loan Agreement or the Related Agreements, there is no contract, agreement or other arrangement (whether written or oral) to which Seller is a party or by which any of their respective assets or properties is bound or committed (i) that creates a Lien on the Purchased Assets, the Royalty, the Vaxcyte License Agreement (except for any Liens under clause (i) of the definition of Permitted Liens) or the Sutro Patents (other than a Permitted Lien on the Sutro Patents); (ii) that relates to, affects or involves the Purchased Revenue Interest, any Royalty Products or the Sutro Patents, or (iii) for which breach thereof, nonperformance thereof, cancellation thereof or failure to renew would reasonably be expected to have a Material Adverse Effect.

Section 3.13 UCC Matters. Seller's exact legal name is, and for the preceding ten (10) years has been, "Sutro Biopharma, Inc.". Seller's principal place of business is, and for the preceding ten (10) years has been, located in the State of California. Seller's jurisdiction of organization is, and for the preceding ten (10) years has been, the State of Delaware.

Section 3.14 Set-Off Against Royalty. To the Knowledge of Seller, Licensee has no right of Set-Off under the Vaxcyte License Agreement against the Purchased Assets or any other amounts payable to Seller under the Vaxcyte License Agreement or Manufacturing Agreement. Licensee has not exercised, and, to the Knowledge of Seller, has not had and does not have the right to exercise, and, to the Knowledge of Seller, no event or condition exists that, upon notice or passage of time or both, would reasonably be expected to permit Licensee to exercise, any Set-Off against the Purchased Assets or any other amounts payable to Seller under the Vaxcyte License Agreement.

Section 3.15 SEC Filings. In the three (3) years prior to the Closing Date, all reports, schedules, forms, statements and other documents (including exhibits and all other information incorporated therein) required to be filed by Seller with the SEC (the "Seller SEC Documents") have been filed with the SEC on a timely basis. As of the time it was filed with the SEC (or, if amended or superseded by a filing prior to the date hereof, then on the date of such amended or superseding filing): (a) each of Seller SEC Documents complied in all material respects with the applicable requirements of the Securities Act, the Exchange Act and the Sarbanes-Oxley Act (as the case may be); and (b) none of Seller SEC Documents contained when filed (and, in the case of registration statements and proxy statements, on the dates of effectiveness and the dates of mailing, respectively) any untrue statement of a material fact or omitted, as the case may be, to state a material fact required to be stated or incorporated by reference therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading.

Section 3.16 Supply Agreements.

(a) The Manufacturing Option Letter Agreement is in full force and effect, and is the legal and valid binding obligation of Seller and, to the Knowledge of Seller, Licensee, enforceable against Seller and, to the Knowledge of Seller, Licensee, in accordance with its terms, except as may be limited by general principles of equity (regardless of whether considered in a proceeding at law or in equity) and by applicable bankruptcy, insolvency, moratorium and other similar Laws of general application relating to or affecting creditors' rights generally.

(b) Seller has not received any written notice from or on behalf of Licensee challenging or threatening to challenge the validity or enforceability of any such Supply Agreement or any obligation of Seller thereunder. Except as would not reasonably be expected to have a Material Adverse Effect, Seller is not in breach or violation of or in default under any of the Supply Agreements, and, to the Knowledge of Seller, Licensee has not breached, and is not in violation or default under, any provision of any such Supply Agreement. Seller has not received any notification alleging a breach or violation of or default under any Supply Agreement.

(c) There are no amounts due or payable under the Supply Agreements by Seller.

(d) Seller has initiated an Existing Agreements Tech Transfer (as such term is defined in the [*] Letter Agreement) to [*] pursuant to Section 2.15 of the Vaxcyte Supply Agreement and Section 8 of the [*] Letter Agreement.

(e) To the Knowledge of Seller, during the last three (3) years, all Supply Product delivered to Licensee has met the Required Standards (as such term is defined in the Vaxcyte Supply Agreement) in all material respects and has not been rejected by Licensee pursuant to Section 4.2 of the Vaxcyte Supply Agreement for non-conformance.

(f) Licensee has not exercised its right to audit and inspect Seller or its subcontractors Facilities (as such term is defined in the Vaxcyte Supply Agreement), nor has Seller exercised its right to audit the facilities of its suppliers pursuant to Section 5.3 of the Vaxcyte Supply Agreement.

(g) Since the signing of the Vaxcyte Supply Agreement, no Governmental Authority has conducted an inspection of Seller's Facilities (as such term is defined in the Vaxcyte Supply Agreement).

(h) Seller has filed a Drug Master File with the FDA and has complied in all material respects with all obligations pertaining to such Drug Master File pursuant to Section 6.2 of the Vaxcyte Supply Agreement.

(i) No Supply Product or, to the Knowledge of Seller, Vaccine Composition has been subject to a recall, withdrawal or other field action, or, to the Knowledge of Seller, that potential adulteration, misbranding, or other material issues have arisen that relate to the safety or efficacy of such Supply Product, and neither Seller nor Licensee have received notification of such recall, withdrawal, or other field action pursuant to Section 6.3 of the Vaxcyte Supply Agreement.

(j) Neither Seller nor Licensee has made any claim of indemnification under the Supply Agreements.

Section 3.17 Compliance. All applications, submissions, information and data related to any Royalty Product submitted or utilized as the basis for any request to any Governmental Authority by or on behalf of Seller, or to the Knowledge of Seller, by or on behalf of Licensee, were true and correct in all material respects as of the date of such submission or request, and any material updates, changes, corrections or modifications to such applications, submissions, information or data required under applicable Laws have been submitted to the necessary Governmental Authorities. Neither Seller, nor to the Knowledge of Seller, Licensee has committed any act, made any statement or failed to make any statement that would reasonably be expected to provide a basis for the FDA or any other Governmental Authority to invoke its policy with respect to "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities," or similar policies set forth in any applicable Laws.

Section 3.18 Solvency. Seller is Solvent.

Section 3.19 Tax Matters. No deduction or withholding for or on account of any Tax has been made or, to the Knowledge of Seller, was required under applicable Law to be made from any payment to Seller under the Vaxcyte License Agreement, and to the Knowledge of Seller, no such deduction or withholding will be made or will be required under currently applicable Law to be made with respect to any payment to (or for the benefit of) Purchaser hereunder.

ARTICLE IV
REPRESENTATIONS AND WARRANTIES OF PURCHASER

Purchaser hereby represents and warrants to Seller as of the date hereof and as of the Closing Date as follows:

Section 4.1 Organization. Purchaser is a limited partnership duly organized, validly existing and in good standing under the Laws of Delaware.

Section 4.2 No Conflicts. The execution, delivery and performance by Purchaser of the Transaction Documents and the consummation of the transactions contemplated thereby do not and will not give rise to any right of termination, cancellation or acceleration of any right or obligation or constitute a breach or violation of or default under (a) the organizational documents of Purchaser, (b) any Law or Judgment applicable to Purchaser or (c) any contract to which Purchaser is a party or by which Purchaser is bound, except in the case of clauses (b) and (c) as would not materially and adversely affect the ability of Purchaser to perform its obligations under, and to consummate the transactions contemplated by, this Agreement.

Section 4.3 Authorization. Purchaser has all powers and authority to conduct its affairs as currently conducted, and to execute and deliver, and perform its obligations under, the Transaction Documents to which it is party and to consummate the transactions contemplated hereby and thereby. The execution and delivery of each of the Transaction Documents to which Purchaser is party and the performance by Purchaser of its obligations hereunder and thereunder have been duly authorized by Purchaser. Each of the Transaction Documents to which Purchaser is party has been duly executed and delivered by Purchaser. Each of the Transaction Documents

to which Purchaser is party constitutes the legal, valid and binding obligation of Purchaser, enforceable against Purchaser in accordance with its respective terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or similar applicable Laws affecting creditors' rights generally, general equitable principles and principles of public policy.

Section 4.4 Governmental and Third Party Authorizations. The execution, delivery and performance by Purchaser of the Transaction Documents and the consummation of any of the transactions contemplated hereunder and thereunder do not and will not require any consent, approval, license, order, authorization or declaration from, notice to, action or registration by or filing with any Governmental Authority or any other Person, except as described in Section 3.5.

Section 4.5 No Litigation. There is no (a) Action (whether civil, criminal, administrative, regulatory, investigative or informal) pending or, to the Knowledge of Purchaser, threatened by or against Purchaser, at law or in equity, or (b) inquiry or investigation (whether civil, criminal, administrative, regulatory, investigative or informal) by or before a Governmental Authority pending or, to the Knowledge of Purchaser, threatened against Purchaser, that, in each case, challenges or seeks to prevent or delay the consummation of any of the transactions contemplated by any of the Transaction Documents to which Purchaser is party.

Section 4.6 Access to Information. Purchaser acknowledges that it has reviewed the Related Agreements and such other documents and information relating to, and has had the opportunity to ask such questions of, and to receive answers from, representatives of the Seller concerning any Royalty Product, the Sutro Technology, the Related Agreements, the Royalty, the Purchased Assets, and any other matter relating thereto, in each case, as it deemed necessary to make an informed decision to purchase, acquire and accept the Purchased Assets in accordance with the terms of this Agreement. Except as specifically set forth in Article III and the Disclosure Schedules, Purchaser acknowledges and agrees that Seller makes no representation nor extends any warranty, whether express or implied, with respect to any Royalty Product, the Sutro Technology, the Related Agreements, the Royalty, the Purchased Assets, future Net Sales of any Royalty Product or any other matter relating thereto. Purchaser has such knowledge, sophistication and experience in financial and business matters that it is capable of evaluating the risks and merits of purchasing, acquiring and accepting the Purchased Assets in accordance with the terms of this Agreement. Notwithstanding anything to the contrary herein, claims for fraud shall not be waived or limited in any way by this Section 4.6 or otherwise.

Section 4.7 Funds Available. Purchaser has sufficient funds on hand or binding and enforceable commitments to provide it with sufficient funds to satisfy its obligations, in each case to pay the Upfront Purchase Price, and Purchaser has no reason to believe, and has not been provided with oral or written notice that any of its investors are not required or do not intend, for any reason, to satisfy their obligations under such commitments. The Purchaser acknowledges and agrees that its obligations under this Agreement are not contingent on obtaining financing.

Section 4.8 No Brokers' Fees. Except for any commission or broker's fee that may be due to Cowen and Company, LLC upon execution of this Agreement by virtue of Seller's engagement with Cowen and Company, LLC, Purchaser has not taken any action that would entitle any Person or entity to any commission or broker's fee in connection with the transactions contemplated by this Agreement. There is no Person or entity retained by Purchaser entitled to

any commission or broker's fee from Seller in connection with the transactions contemplated by this Agreement.

ARTICLE V
COVENANTS

Section 5.1 Public Announcement. Except (a) for a press release previously approved in form and substance by Seller and Purchaser and attached hereto as Exhibit K, or any other public announcement using substantially the same text as such press release, and (b) subject to any disclosure (i) required by applicable Law, by the rules and regulations of any securities exchange or market on which any security of such Party may be listed or traded or by any Governmental Authority of competent jurisdiction or (ii) regarding the achievement of a Milestone Payment Event and the payment of the corresponding Milestone Payment, (in which case of (i) and (ii) the Party hereto making the press release or other public announcement or disclosure shall allow the other Party hereto reasonable time to comment on such press release or other public announcement or disclosure in advance of such issuance), neither Party shall, and each Party shall cause its Affiliates not to, without the prior written consent of the other Party (which consent shall not be unreasonably withheld or delayed), issue any press release or make any other public disclosure with respect to this Agreement or any of the other Transaction Documents or any of the transactions contemplated hereby or thereby. Purchaser acknowledges that, subject to the requirements of this Section 5.1, it will be necessary for Seller to file this Agreement with the SEC and to make other public disclosures regarding the terms of this Agreement and payments made under this Agreement in its reports filed with SEC.

Section 5.2 Further Assurances. Subject to the terms and conditions of this Agreement, each Party shall execute and deliver such other documents, certificates, instruments, agreements and other writings, take such other actions and perform such additional acts under applicable Law as may be reasonably requested by the other Party and necessary to implement expeditiously the transactions contemplated by, and to carry out the purposes and intent of the provisions of, this Agreement and the other Transaction Documents, including to (i) perfect the sale, assignment, transfer, conveyance and granting of the Purchased Assets to Purchaser pursuant to this Agreement, (ii) perfect, protect, more fully evidence, vest and maintain in Purchaser good, valid and marketable rights and interests in, to and under the Purchased Assets free and clear of all Liens (other than any Liens under clauses (b), (f) and (g) of the definition of Permitted Liens) and (iii) create, evidence and perfect Purchaser's back-up security interest granted pursuant to Section 2.1(b).

Section 5.3 Royalty Reports; Notices and Communications. Promptly (and in any event no later than [*]Business Days) following the receipt, or as applicable, delivery, by Seller of (a) a Royalty Report, (b) any written notice or material written correspondence under any Related Agreement relating to, affecting or involving the Purchased Assets, the Vaxcyte License Agreement, the Stanford License Agreement or any other Related Agreements or that would reasonably be expected to result in a Material Adverse Effect, in each case, from or on behalf of Licensee or Stanford, (c) semi-annual pre-clinical, clinical and regulatory developments reports provided by Licensee to Seller pursuant to Section 7.3 of the Vaxcyte License Agreement; (d) the annual commercialization reports provided by Licensee to Seller pursuant to Section 7.3 of the Vaxcyte License Agreement, (e) inspection or audit reports provided to Seller pursuant to Section

6.8 of the Vaxcyte License Agreement, or (f) any notice regarding Licensee's grant of any sublicense of the license granted by Seller under the Vaxcyte License Agreement, in each of the forgoing cases, Seller shall furnish a copy of the same to Purchaser, *provided* that Seller may redact any information that does not relate to the Royalty, the Purchased Assets, the Sutro Patents, or any Royalty Products and would not reasonably be expected (with or without the giving of notice or passage of time, or both) to have a Material Adverse Effect. Except for the Licensee Instruction and the Licensee Letter Agreement and notices and correspondence required to be given or made by Seller under the Vaxcyte License Agreement or by applicable Law, Seller shall only, as Mutually Agreed, send written notices or correspondence to Licensee relating to, affecting or involving, the Royalty, the Sutro Patents, the Purchased Assets or that would reasonably be expected to result in a Material Adverse Effect. Without limiting the foregoing, Seller shall, promptly (and in any event no later than [*]) following the delivery thereof by Seller to Licensee, furnish a copy to Purchaser of any written notice or correspondence sent by Seller to Licensee relating to, affecting or involving the Royalty, the Sutro Patents, the Purchased Assets, or that would reasonably be expected to result in a Material Adverse Effect, *provided* that Seller may redact any information that does not relate to the Royalty, the Sutro Patents, or the Purchased Assets and would not reasonably be expected (with or without the giving of notice or passage of time, or both) to have a Material Adverse Effect.

Section 5.4 Supply Chain.

(a) Unless awarded in a Judgment or prohibited by applicable Law, Seller shall oppose any attempt by, or allegation from Licensee that it is entitled to, Set-Off against any Royalty due to a breach or default under any Manufacturing Agreement.

(b) Within [*]Business Days after (i) (A) receipt of any written notice or written correspondence by Licensee or (B) delivery of written notice to Licensee, notifying such other party of its belief that a Supply Product or Vaccine Composition should be subject to recall or other field action, and (ii) receipt of any material written notice or material written correspondence from any Governmental Authority related to any Supply Product or manufacturing concerns, Seller shall give written notice thereof to Purchaser.

(c) Seller will use commercially reasonable efforts to continue and complete technology transfer to [*] pursuant to the [*] Letter Agreement and Manufacturing Option Letter Agreement for [*] Extract (as such term is defined in the Vaxcyte Supply Agreement) and (ii) within [*] of a request by Licensee for technology transfer of [*] Extract (as such term is defined in the Vaxcyte Supply Agreement). [*].

Section 5.5 Payments on Account of Purchased Assets; Escrow Agreement.

(a) Promptly following the Closing, Seller shall instruct Licensee in accordance with the Licensee Letter Agreement, and thereafter Seller shall use commercially reasonable efforts to cause Licensee to pay amounts owed in respect of the Purchased Assets directly to the Purchaser Account.

(b) Promptly following the date hereof, and in any case within [*]days of the Closing Date, the Parties shall cooperate, in good faith and acting reasonably to prepare, negotiate

and execute an escrow agreement with an escrow agent mutually acceptable to the Parties (such escrow agent, the "Escrow Agent" and such agreement, the "Escrow Agreement"), for purposes of maintaining an escrow account (the "Escrow Account") in respect of payments from Licensee, pursuant to which Purchaser shall have the authority to direct disbursements from the Escrow Account. Promptly following the execution of the Escrow Agreement, Seller shall provide the Licensee Instruction, instructing Licensee to pay amounts payable under the Vaxcyte License Agreement directly to the Escrow Account, and thereafter, shall provide Purchaser evidence of delivery of such Licensee Instruction. The Parties shall have no obligation to enter into the Escrow Agreement, and shall terminate the Escrow Agreement if then executed, upon Licensee's execution of the Licensee Letter Agreement.

Section 5.6 Misdirected Payments.

(a) Notwithstanding the terms of the Escrow Agreement, the Licensee Instruction or the Licensee Letter Agreement, commencing on the Closing Date and at all times thereafter, if any portion of the Purchased Assets is paid to Seller, then (i) Seller shall hold such amount in trust for the benefit of Purchaser in a segregated account, (ii) Seller shall have no right, title or interest whatsoever in such amount and shall not create or suffer to exist any Lien thereon and (iii) Seller promptly, and in any event no later than [*] following the receipt by Seller of such amount, shall remit such amount to Purchaser Account. Seller shall notify Purchaser of such wire transfer and provide reasonable details regarding the Purchased Assets payment so received by Seller.

(b) Notwithstanding the terms of the Escrow Agreement, the Licensee Instruction or the Licensee Letter Agreement, commencing on the Closing Date and at all times thereafter, if any amount due under the Vaxcyte License Agreement that does not constitute the Purchased Assets is paid to Purchaser, then (i) Purchaser shall hold such amount in trust for the benefit of Seller in a segregated account, (ii) Purchaser shall have no right, title or interest whatsoever in such amount and shall not create or suffer to exist any Lien thereon and (iii) Purchaser promptly, and in any event no later than [*] following the receipt by Purchaser of such amount, shall remit such amount to Seller Account. Purchaser shall notify Seller of such wire transfer and provide reasonable details regarding the erroneous payment so received by Purchaser.

(c) If Licensee exercises any Set-Off against any payment of the Purchased Assets, then Seller shall promptly (and in any event no later than [*]) following payment of the Purchased Assets reduced by such Set-Off, make a true-up payment to Purchaser such that Purchaser receives the full amount of such Purchased Asset payment that would have been payable to Purchaser had such Set-Off not been exercised unless Seller, acting in good faith, believes such shortfall is a material breach by Licensee of the Vaxcyte License Agreement and has provided notice to Purchaser under Section 5.8(a) regarding such shortfall, in which case Section 5.8(b) shall govern the enforcement of such breach, and Section 5.8(c) shall govern the disbursement of the Proceeds of such enforcement. After Seller makes the payment referred to in the first sentence of this Section 5.6(c), Seller shall be entitled to, and Purchaser shall not be entitled to, any amounts recovered from Licensee in respect of such Set-Off.

(d) All remittances pursuant to this Section 5.6 shall be made (i) without set-off or deduction of any kind (except as required by applicable Law) and (ii) by wire transfer of

immediately available funds to such account as the relevant payee may designate in writing (such designation to be made at least [*] prior to any such payment).

(e) A late fee of [*] ([*]%) over the prime rate published by the Wall Street Journal, from time to time, as the prime rate shall accrue on all unpaid amounts on an annualized basis with respect to any sum payable under Section 5.6(a) or Section 5.6(b) beginning [*] after receipt of such payment received in error.

Section 5.7 Maintenance of Related Agreements.

(a) Seller (i) shall perform and comply in all material respects with all of its obligations under each of the Related Agreements (including, for the avoidance of doubt, the Vaxcyte License Agreement), except where such performance and compliance is being contested in good faith by appropriate proceedings (*provided* that, during the pendency of any such dispute, in which case Seller shall continue to comply in all material respects with all of its other obligations under the Related Agreements), and (ii) shall not (A) forgive, release or compromise any portion of the Royalty or the Purchased Assets payable under the Vaxcyte License Agreement, (B) except as Mutually Agreed: (I) amend, modify, supplement, restate, waive, cancel or terminate (or consent to any cancellation or termination of), in whole or in part, any provision of or right under any of the Related Agreements, or (II) assign or transfer, in whole or in part, any of the Related Agreements or any provision thereof or right thereunder with respect to the foregoing, except in connection with (1) an assignment of this Agreement by Seller in accordance with the provisions of Section 10.3 or (2) a Rights Transfer Event that (x) is permitted by and undertaken in accordance with this Agreement, (y) would not otherwise adversely affect the ability of Seller to perform any of its obligations hereunder and (z) would not reasonably be expected to, individually or in the aggregate, result in a Material Adverse Effect. In addition to the obligations set forth in the preceding sentence, Seller shall, only as Mutually Agreed, waive any obligation of, or grant any consent to, a counterparty to any Related Agreement under, involving, affecting, in respect of or related to the Royalty, the Sutro Patents, the Purchased Assets or that otherwise would reasonably be expected to, individually or in the aggregate, result in a Material Adverse Effect.

(b) Seller shall not, without the prior written consent of Purchaser, grant or withhold any consent, exercise or waive any right or option or fail to exercise any right or option in respect of, affecting or relating to the Purchased Assets, any Royalty Product or any of the Related Agreements, or enter into any other contract or arrangement with any counterparty to any Related Agreement, in any manner that would (i) reasonably be expected to, individually or in the aggregate, result in a Material Adverse Effect or (ii) conflict with, or that would reasonably be expected to give rise to a breach, violation, termination or default under any of the Related Agreements.

(c) Seller shall use commercially reasonable efforts to enter into the [*] Manufacturing Rights Agreement [*].

(d) Within [*] after (i) becoming aware of, whether by written notice or otherwise, a counterparty's (A) intent to terminate any Related Agreement (in whole or in part) or (B) allegation of a breach or violation of or default under any Related Agreement or (ii) gaining Knowledge of any fact, circumstance or event that would reasonably be expected to give rise to a

breach or violation of or default under any Related Agreement by Seller , Seller shall give written notice thereof to Purchaser. Such notice shall (x) describe in reasonable detail such breach, violation, default or other event, (y) include a copy of any written notice received from the applicable counterparty with respect thereto, and (z) describe in reasonable detail any corrective action Seller proposes to take in respect of such breach, violation or default. In consultation with Purchaser, Seller shall use its reasonable best efforts to cure any breach or default by it under such Related Agreement and, in any case, shall give written notice to Purchaser upon curing such breach or default. In connection with any dispute regarding an alleged breach that is related to the Royalty or would reasonably be expected to have a Material Adverse Effect, Seller shall employ such counsel, reasonably acceptable to Seller, as Purchaser may select. [*] shall pay the costs and expenses of such counsel and all other costs and expenses associated with curing any such breach or default.

(e) Without limiting the provisions of Section 5.7(c), if Licensee terminates or provides written notice of termination of the Vaxcyte License Agreement (in whole or with respect to any Royalty Product, or any portion of the Territory, or a termination that could adversely affect the Purchased Assets), or the Vaxcyte License Agreement otherwise terminates (in whole or with respect to any Royalty Product, or any portion of the Territory, or a termination that could adversely affect the Purchased Assets), then:

(i) Purchaser and Seller shall discuss and consider in good faith the scope of Seller's commercialization capabilities (including consideration of the ability of Seller or an Affiliate to maximize Royalty Product sales) as of such time and, if Purchaser and Seller, acting reasonably, mutually agree that Seller's commercialization capabilities are sufficient to commercialize a Royalty Product in part or all of the Territory, then Seller may elect to use commercially reasonable efforts (itself or via an Affiliate) to commercialize a Royalty Product itself in part or all of such portion of the Territory, subject to its agreement to pay to Purchaser the Sutro Commercialization Royalty (with payments being payable to Purchaser no less frequently than provided for under the Vaxcyte License Agreement) and subject to Seller and Purchaser cooperating with one another to make mutually agreed amendments to this Agreement. If Seller so elects, it shall consult with Purchaser in good faith regarding its commercialization activities.

(ii) If Seller does not elect to commercialize a Royalty Product in any portion of the Territory or Purchaser and Seller mutually conclude, after good faith discussion and consideration, that there is any portion of the Territory in which Seller lacks the requisite capabilities to commercialize a Royalty Product, then Seller shall use commercially reasonable efforts to pursue the negotiation of and entry into one or more licenses, including pursuant to a co-promotion or co-commercialization arrangement in all or a portion of the Territory, to commercialize any Royalty Products in the Territory, *provided*, *however*, that, unless mutually agreed by the Parties, the terms of such license shall be (x) no less favorable to Seller and Purchaser than those contained in the Vaxcyte License Agreement with respect to (1) the royalty rates and Royalty Reductions set forth in Section 6 of the Vaxcyte License Agreement, (2) obligations and costs imposed on Seller, (3) disclaimers of Seller's liability, (4) intellectual property ownership and control, (5) commercialization diligence and (6) indemnification of Seller and (y) in accordance with the Stanford License Agreement (any such arrangement, a "New Arrangement"). If

any New Arrangement is a co-promotion or co-commercialization agreement, Seller shall consult with Purchaser in a customary manner and on a reasonable basis regarding any commercialization activities it performs under such agreement.

(iii) Purchaser shall provide assistance to and cooperate with Seller, at Purchaser's cost and expense, in such efforts as Seller shall undertake in connection with any New Arrangement. Should Purchaser identify any New Arrangement, Seller agrees to use commercially reasonable efforts to pursue the negotiation of and entry into a new license agreement effecting any New Arrangement that satisfies the foregoing requirements promptly upon the written request of Purchaser. In the event Seller enters into a New Arrangement, Seller agrees to comply in all material respects with the provisions of this Agreement and references in this Agreement to the Purchased Assets and the Vaxcyte License Agreement shall be deemed to include references to any new purchased asset and the new license agreement constructed under the New Arrangement, and references to Licensee shall be deemed to include references to the other party to such new license agreement and that other party's Affiliates and sublicensees.

(iv) Purchaser shall reimburse Seller, for an agreed upon (using good faith efforts) proportion of its reasonable out-of-pocket costs and expenses (including the fees and expenses of Seller's counsel) incurred by Seller in consultation with Purchaser to fairly apportion such costs and expenses of negotiation of and entry into a New Arrangement, with such reimbursement to occur within [*] of receipt of an invoice therefor. If the Parties, notwithstanding their good faith efforts, are unable to agree upon a fair proportion within [*] of commencing negotiations, then Purchaser shall reimburse Seller, [*] ([*]%) of such reasonable, out-of-pocket costs and expenses, as such costs and expenses are incurred and within [*] of receipt of an invoice therefor. Notwithstanding the foregoing, Seller shall be solely responsible for its fees and expenses incurred in connection with the negotiation of and entry into a New Arrangement if the Vaxcyte License Agreement is terminated due to Seller's breach thereof.

(v) Following the effective date of any New Arrangement, (A) if the New Arrangement does not provide for direct payment to Purchaser or as Mutually Agreed, Seller shall deliver to the (sub)licensee under such New Arrangement an instruction letter substantially similar to the Licensee Letter Agreement but with references to the Vaxcyte License Agreement and Licensee replaced by references to such New Arrangement and the (sub)licensee thereunder, respectively, and (B) Purchaser and Seller shall cooperate with one another to make mutually agreed amendments to this Agreement and the Bill of Sale that give effect to this Section 5.7(e).

(vi) Seller shall use commercially reasonable efforts to cause any New Arrangement to provide that all payments in respect of the Purchased Assets be made by the (sub)licensee directly to Purchaser.

Section 5.8 Enforcement of Related Agreements.

(a) Promptly after Seller becomes aware of a breach or violation of or default under, or an alleged breach or violation of or default under, any Related Agreement by a

counterparty thereto, or any failure of a counterparty to pay any amounts contemplated by or under any Related Agreement, or of the existence of any facts, circumstances or events that, alone or together with other facts, circumstances or events, would reasonably be expected (with or without the giving of notice or passage of time, or both) to give rise to a breach or violation of, default or failure to pay under any Related Agreement by a counterparty thereto, or the right to terminate any Related Agreement (in whole or with respect to any Royalty Product, or any portion of the Territory, or a termination that could adversely affect the Purchased Assets) by a counterparty thereto, in each case Seller shall (i) promptly (but in any event within [*]) give written notice to Purchaser describing in reasonable detail the relevant breach, default, termination event or failure to pay and (ii) proceed, in consultation with Purchaser and as Mutually Agreed to take such permissible actions to enforce compliance by the counterparty thereto, with the relevant provisions of the applicable Related Agreement and to exercise any or all of Seller's rights and remedies, whether under the applicable Related Agreement or by operation of law (including pursuit of any and all claims in law or in equity), with respect thereto (in each case, except with respect to the Vaxcyte License Agreement, other than with respect to breaches, violations or defaults that would not reasonably be expected to have a Material Adverse Effect).

(b) In connection with any enforcement of a counterparty's obligations under a Related Agreement in respect of any breach referred to in Section 5.8(a), the lead counsel selected by Seller shall be reasonably acceptable to Purchaser. Purchaser shall, solely in the case of enforcement of the Vaxcyte License Agreement, reimburse Seller for its reasonable, out-of-pocket costs and expenses (including the fees and expenses of Seller's counsel) incurred by Seller, as such costs and expenses are incurred, in connection with Seller's actions and exercise of rights and remedies pursuant to clause (a)(ii) of the immediately preceding paragraph, but only to the extent that such costs and expenses relate primarily to the Royalty; *provided*, *however*,[*]; and *provided*, *further*, that [*]. For clarity, Seller shall be responsible for its own out-of-pocket costs and expenses incurred by Seller in connection with any enforcement of Stanford's obligations under the Stanford License Agreement.

(c) All Proceeds resulting from any enforcement of Licensee's obligations under the Vaxcyte License Agreement or the Manufacturing Agreement pursuant to this Section 5.8 (regardless of whether such enforcement is initiated by Seller as a result of a written request from Purchaser or initiated by Seller in the absence of any such request), after deduction (and reimbursement to Seller and Purchaser) of all costs and expenses (including attorneys' fees and expenses) incurred by Seller and Purchaser in connection with such enforcement pursuant to this Section 5.8, shall be (i) in the case of a breach or loss with respect to an unpaid portion of the Purchased Assets, due entirely to Purchaser, which amount shall be promptly (and in any event no later than [*]) paid to Purchaser, and (ii) for all other breaches or losses, due solely to Seller. For clarity, Seller shall retain all Proceeds resulting from any enforcement of Stanford's obligations under the Stanford License Agreement. Seller hereby assigns and, if not presently assignable, agrees to assign to Purchaser the amount of Proceeds due to Purchaser in accordance with this Section 5.8(c).

Section 5.9 Prosecution and Enforcement of Intellectual Property.

(a) In each case if and to the extent permitted under the License Agreements, Seller shall, at no cost to Purchaser (i) take any and all actions, and prepare, execute, deliver and

file, solely, or in cooperation with Licensee or Stanford, any and all agreements, documents and instruments, that are reasonably necessary or desirable to diligently prosecute, preserve and maintain the applicable Sutro Patents for which it controls the prosecution and maintenance, in each case in accordance with the License Agreements, including payment of maintenance fees or annuities, (ii) when available in respect of the Sutro Patents for which it controls the prosecution and maintenance, obtain issued Patents and any corrections, substitutions, reissues and reexaminations thereof and obtain patent term extensions and any other forms of patent term restoration in any country, in each case in accordance with the License Agreements, (iii) not disclaim, allow to lapse, abandon, or terminally disclaim or fail to take any action necessary or desirable to prevent the disclaimer, lapse or abandonment of, any Sutro Patent for which it controls the prosecution and maintenance, except (x) with respect to any US Sutro Patent, with respect to any such terminal disclaimer filed, or with respect to the abandonment of any pending patent application in lieu of a continuing application that is also a Sutro Patent, in each case, pursuant to Seller's reasonable business judgment, in each case in accordance with the License Agreements and (y) with respect to any non-US Sutro Patent, with respect to any such lapse, terminal disclaimer filed, or abandonment pursuant to Seller's reasonable business judgment, in each case in accordance with the License Agreements; *provided* that, with respect to such non-US Sutro Patent and a Maintenance Market, at least one (1) Sutro Patent in such country is (and remains) granted or issued and in force and (iv) diligently defend the Sutro Patents for which it controls the defense against any claims of invalidity or unenforceability, in any jurisdiction, in each case in accordance with the License Agreements.

(b) In each case if and to the extent permitted under the License Agreements, Seller shall (i) promptly provide to Purchaser (A) any and all material information reasonably requested by Purchaser regarding ongoing prosecution, defense and enforcement matters for the Sutro Patents, and (B) any information of which Seller becomes aware that could reasonably be expected to have a Material Adverse Effect on the prosecution, maintenance, defense or enforcement of the Sutro Patents. To the extent that Seller receives any material written correspondence regarding the prosecution, defense or enforcement of the Sutro Patents, Seller will provide such correspondence to Purchaser and provide Purchaser a reasonable opportunity to comment thereon; *provided*, *however*, that Seller shall have no such obligation to provide such correspondence to Purchaser if the disclosure thereof would adversely affect the maintenance by Seller (and/or Licensee or Stanford, as applicable) of any applicable attorney-client privilege (and, in such event, the Parties agree to use commercially reasonable efforts to effect such other arrangements to preserve such privilege, including negotiating to enter into a joint defense agreement that is acceptable to Seller, Purchaser, and, if applicable, Licensee and Stanford). Such comments will be considered by Seller in good faith.

(c) If Seller has the right pursuant to Section 9.2 of the Vaxcyte License Agreement, Article 14 of the Stanford License Agreement or applicable Law to institute suit or other Actions to enforce any of the Sutro Patents in respect of a Competitive Infringement or to participate in a suit instituted by another Person with respect to a Competitive Infringement, then promptly (and in any event within [*]) following Seller becoming aware of such right of Seller, Seller shall provide written notice to Purchaser thereof. Prior to instituting or participating in any such Action, Seller shall consult with Purchaser and consider in good faith any courses of action requested by Purchaser, and shall not proceed with instituting such Action if such Competitive Infringement relates to a Royalty Product unless as Mutually Agreed. If Seller elects to exercise

its right to institute or participate in any such Action, Purchaser shall reimburse Seller, promptly on demand, for an agreed upon (using good faith efforts) proportion of its reasonable out-of-pocket costs and expenses (including the fees and expenses of Seller's counsel) incurred by Seller in consultation with Purchaser to fairly apportion such costs and expenses of such Action. If the Parties, notwithstanding their good faith efforts, are unable to agree upon a fair proportion within [*] of commencing negotiations, then Purchaser shall reimburse Seller, promptly on demand, [*] ([*]%) of such reasonable, out-of-pocket costs and expenses, as such costs and expenses are incurred, but solely to the extent such costs and expenses are not reimbursed or required to be reimbursed by Licensee or Stanford under the applicable License Agreement, which reimbursement shall be further reduced by multiplying such [*] ([*]%) by the Purchaser Applicable Percentage [*].

(d) If Seller declines to exercise its right to institute or participate in any such Action, Seller shall promptly give notice of such declination to Purchaser, and Purchaser shall have [*] to send a written notice to Seller objecting to such declination, at which time Seller and Purchaser shall promptly consult with each other regarding whether to proceed with the institution or participation in such Action; *provided* that, (i) if, with respect to such Action, no Licensee-owned Patent can reasonably be asserted in good faith to abate the subject Competitive Infringement, such that one or more Sutro Patents are the only Patents owned by Seller or Licensee that can reasonably be asserted in such Action to abate the subject Competitive Infringement, or (ii) if the basis of such Action is the Competitive Infringement by Licensee or its Affiliates, then in each case ((i) and (ii)) upon Purchaser's reasonable written request after such consultation, Seller shall proceed, in consultation with Purchaser, to institute or participate in such Action and to use commercially reasonable efforts to enforce the Sutro Patent in respect of such Competitive Infringement, and to exercise such rights and remedies relating to such Competitive Infringement as shall be available to Seller under applicable Law, but, in each case, subject to the terms and conditions of the License Agreements and this Agreement. Seller may employ any counsel, so long as such counsel is reasonably acceptable to Purchaser. Purchaser shall reimburse Seller for (A) if the Competitive Infringement is in respect of a Pneumococcal Royalty Product, [*] ([*]%), and (B) [*], [*] ([*]%) (which reimbursement shall be further reduced by multiplying such [*] ([*]%) by the Purchaser Applicable Percentage) of Seller's reasonable, out-of-pocket costs and expenses (including the fees and expenses of Seller's counsel) incurred by Seller in connection with Seller's actions exercised at Purchaser's request pursuant to this Section 5.9(d) within [*] of receipt of an invoice therefor, but solely to the extent such costs and expenses are not reimbursed or required to be reimbursed by Licensee or Stanford under the applicable License Agreement.

(e) Purchaser shall, to the extent permitted under the License Agreements and by Licensee and Stanford (as applicable), have the right, at its sole cost and expense, to participate in any meeting, discussion or Action relating to the infringement, violation, validity or enforceability of the Sutro Patents, including any counterclaim, settlement discussions or meetings; *provided*, *however*, that Purchaser shall have no such right to participate if the exercise thereof would adversely affect the maintenance by Seller (and/or Licensee or Stanford, as applicable) of any applicable attorney-client privilege (and, in such event, the Parties agree to use commercially reasonable efforts to effect such other arrangements to preserve such privilege, including negotiating to enter into a joint defense agreement that is acceptable to Seller, Purchaser, and, if applicable, Licensee and Stanford). Notwithstanding anything to the contrary herein, Seller shall

keep Purchaser reasonably informed of any such Action relating to the infringement, violation, validity or enforceability of the Sutro Patents.

(f) To the extent in respect of any Competitive Infringement, the Proceeds of any enforcement of any of the Sutro Patents controlled by (i) Seller pursuant to Article 14 of the Stanford License Agreement, Section 9.2(a) of the Vaxcyte License Agreement or otherwise if the Vaxcyte License Agreement has been terminated, (ii) Licensee pursuant to Section 9.2(a) or Section 9.2(b) of the Vaxcyte License Agreement or (iii) Stanford pursuant to Article 14 of the Stanford License Agreement, in each case of the immediately foregoing clauses (i) through (iii), after deduction (and reimbursement to Seller and Purchaser) of all costs and expenses (including attorneys' fees and expenses) incurred by Seller and Purchaser in connection with such enforcement, shall be paid to (A) Purchaser to the extent such Proceeds are in respect of Royalties that were otherwise due hereunder, in each case, if and to the extent permitted under the License Agreements or (B) Purchaser, [*] ([*]%), and Seller, [*] ([*]%), for all other Proceeds. Any amounts payable to Purchaser shall be paid promptly (and in any event within [*]) to Purchaser by or on behalf of Seller.

Section 5.10 Assignment of License Agreement and Sutro Patents.

(a) Except in connection with an assignment of this Agreement by Seller in accordance with the provisions of Section 10.3, Seller shall not dispose of, assign or otherwise transfer any of the License Agreements or the Sutro Patents without the prior written consent of Purchaser. For the avoidance of doubt, the Purchased Assets are being irrevocably sold and conveyed to Purchaser hereunder, and Seller therefore shall not, and has no right to, assign or otherwise transfer, or grant, incur or suffer to exist any Lien on, or purport to do any of the foregoing, with respect to the Purchased Assets.

(b) Promptly (and in any event within [*]) following receipt by Seller of a written request from Licensee for consent to assign the Vaxcyte License Agreement (in whole or in part), including pursuant to Section 15.1 of the Vaxcyte License Agreement, Seller shall provide notice thereof to Purchaser. Seller and Purchaser shall consult with each other regarding whether to grant such consent, and Seller only as Mutually Agreed grant such consent.

Section 5.11 Audits.

(a) Consultation. Following the Closing Date, Seller and Purchaser shall consult with each other regarding the timing, manner and conduct of any review or audit of Licensee's books and records pursuant to Section 6.8 of the Vaxcyte License Agreement.

(b) Audits under Vaxcyte License Agreement. Following consultation in accordance with Section 5.11(a), if requested in writing by Purchaser or such audit or inspection is Mutually Agreed, Seller shall to the extent permitted by Section 6.8 of the Vaxcyte License Agreement, provide written notice to Licensee to cause an inspection or audit to determine the correctness of any Royalty payments made under the Vaxcyte License Agreement or other royalties under the Vaxcyte License Agreement with respect to products that [*]. With respect to any audit commenced prior to the Royalty Reporting Trigger Date, all of the expenses of any inspection or audit requested by Purchaser shall be borne by Seller, including such fees and

expenses of any public accounting firm engaged by Seller (and reasonably acceptable to Purchaser and Licensee) in connection with such an inspection or audit. With respect to any audit commenced on or following the Royalty Reporting Trigger Date, all of the expenses of any inspection or audit requested by Purchaser that would otherwise be borne by Seller pursuant to the Vaxcyte License Agreement, including such fees and expenses of any public accounting firm engaged by Seller (and reasonably acceptable to Purchaser and Licensee) in connection with such an inspection or audit shall be borne by Purchaser, and Purchaser shall reimburse Seller for any such fees Seller incurs with respect to such audit, unless Licensee reimburses Seller for such costs and expenses in accordance with Section 6.8 of the Vaxcyte License Agreement; *provided* that, in respect of any inspection or audit involving the audit of both Royalties with respect to Royalty Products and royalties under the Vaxcyte License Agreement with respect to products that are not Royalty Products, such costs and expenses shall instead be borne (a) with respect to such audit commenced prior to the Royalty Reporting Trigger Date, [*]and (b) with respect to such audit commenced on or following the Royalty Reporting Trigger Date, [*]. For the avoidance of doubt, if any audit is commenced prior to the Royalty Reporting Trigger Date and concludes on or following the Royalty Reporting Trigger Date, [*]. Seller will promptly furnish to Purchaser a true, correct and complete copy of any inspection or audit report prepared in connection with such an inspection or audit. If, following the completion of such inspection or audit, Seller is required to reimburse Licensee for overpayment of the Royalty, then Purchaser shall promptly upon request reimburse Seller, or, at Seller's request, Licensee on behalf of Seller, for such overpaid amount that was actually paid to Purchaser, and shall promptly (and in any event within [*]) after making such payment provide documentation to Seller evidencing that such payment was made. If, following the completion of such inspection or audit, Licensee is required to pay amounts representing an underpayment of the Royalty during the applicable period of time, then Seller shall request that Licensee pay any such underpayments directly to the Purchaser Account or the Escrow Account, as applicable.

Section 5.12 Licensee Letter Agreement. Prior to the termination of this Agreement pursuant to Section 9.1, Seller shall not, without Purchaser's prior written consent, deliver any further directions to Licensee regarding the payment of the Purchased Assets.

Section 5.13 Tax Matters.

(a) For United States federal (and applicable state and local) and non-U.S. income Tax purposes, Seller and Purchaser intend that (a) this Agreement does not constitute or give rise to a partnership or other joint venture between Purchaser and its Affiliates, on the one hand, and Seller and its Affiliates, on the other hand, (b) Purchaser's right to payment hereunder does not represent a return with respect to a debt or equity instrument in any entity, (c) the payments made hereunder to Purchaser are not treated as royalties or a payment for fees for services, and (d) the Milestone Payments as deferred contingent consideration for the Purchased Assets eligible for installment sale treatment under Section 453 of the Code and any corresponding provision of foreign, state or local law, as appropriate. The Parties shall not take any position inconsistent with the treatments set forth in this Section 5.13, the Parties shall cooperate with each other in responding to such inquiry in a commercially reasonable manner consistent with this Section 5.13.

(b) On or prior to the Closing Date, Purchaser shall deliver to Seller and Licensee a duly completed and valid IRS Form W-9 certifying that Purchaser is a United States person, as

such term is defined in Section 7701(a)(30) of the Code, and Purchaser shall provide an updated IRS Form W-9 to Seller and Licensee throughout the term of the Transaction Documents whenever required in order for Seller and Licensee to have on file a duly completed and valid IRS Form W-9.

(c) Seller shall notify Purchaser in writing promptly (but in no event later than [*]) following the receipt of any written notification by Licensee or by an Affiliate of Licensee that it intends to deduct or withhold Taxes from amounts payable pursuant to the Vaxcyte License Agreement or the Manufacturing Option Letter Agreement (any such deduction or withholding, "Permitted Tax Withholding"); *provided* that Seller has no obligation to notify Purchaser of any Permitted Tax Withholding due to Purchaser's failure to comply with its obligations under Section 5.13(b). Seller shall, upon the reasonable request of Purchaser and at Purchaser's expense, reasonably cooperate with Purchaser and use its commercially reasonable efforts to make such filings and take such other actions as may be reasonably necessary and specified by Purchaser in order to allow an exemption from or reduction of any Permitted Tax Withholding; *provided* that Seller shall have no obligation under this sentence in respect of any withholding Tax resulting from Purchaser's failure to comply with its obligations under Section 5.13(b).

(d) All payments by Seller to Purchaser under the Transaction Documents shall be made without any deduction or withholding by Seller for or on account of any Tax unless as required by applicable Law. Seller acknowledges and agrees that, so long as Purchaser complies with its obligations under Section 5.13(b) and Section 6.3(b)(iii), Seller does not expect to deduct or withhold any Taxes from payments to Purchaser under this Agreement. If Seller subsequently determines that any applicable Law (as reasonably determined by Seller) requires the deduction or withholding of any Tax by Seller from any amount payable by Seller hereunder, then Seller shall be entitled to make such deduction or withholding from the applicable amount payable hereunder (but for this sentence) to Purchaser any income or other Tax that Seller so determined that it is required by law to withhold with respect to such amount payable to Purchaser by Seller under this Agreement prior to remittance to Purchaser. Seller shall timely remit (or cause to be timely remitted) any amount withheld or deducted pursuant to this Section 5.13(d) to the relevant taxing authority, and any amount so remitted shall be treated as paid hereunder to Purchaser. If Seller intends to withhold or deduct Taxes from a payment to Purchaser under the Transaction Documents or directs a third party (including the Licensee) to do so, Seller shall (i) promptly notify the Purchaser in advance of undertaking such withholding or deduction and (ii) at Purchaser's expense, take all actions including without limitation (A) providing tax certifications or making a claim for relief from such withholding or deduction under applicable law, treaty or agreement to eliminate or reduce such withholding and (B) cause to be given to Purchaser such assistance and such information, in each case, as may reasonably be necessary to enable Purchaser to claim exemption from any such withholding, reduction (or refund) thereof, or credit therefor, and in each case shall furnish Purchaser proper evidence of the Taxes withheld and remitted by Seller (or the third party) to the relevant taxing authority. Notwithstanding the above, if withholding arises as a result of an assignment by Seller pursuant to Section 5.10(a) or as a result of a change in the Seller's status as a C corporation organized under the Laws of Delaware (in each case, a "Seller Tax Action"), then Seller shall pay such additional amounts to Purchaser as necessary so that the net amount received by Purchaser, after all required deductions and withholdings (including with respect to such additional amounts), is an amount equal to the amount that it would have received had no such deductions or withholdings been made.

(e) All payments by Purchaser to Seller under the Transaction Documents shall be made without any deduction or withholding by Purchaser for or on account of any Tax unless as required by applicable Law. Purchaser acknowledges and agrees that, so long as Seller complies with its obligations under Section 6.3(a)(vii), Purchaser does not expect to deduct or withhold any Taxes from payments to Seller under this Agreement. If Purchaser subsequently determines that any applicable Law (as reasonably determined by Purchaser) requires the deduction or withholding of any Tax by Purchaser from any amount payable by Purchaser hereunder, then Purchaser shall be entitled to make such deduction or withholding from the applicable amount payable hereunder (but for this sentence) to Seller any income or other Tax that Purchaser so determined that it is required by law to withhold with respect to such amount payable to Seller by Purchaser under this Agreement prior to remittance to Seller. Purchaser shall timely remit (or cause to be timely remitted) any amount withheld or deducted pursuant to this Section 5.13(e) to the relevant taxing authority, and any amount so remitted shall be treated as paid hereunder to Seller. If Purchaser intends to withhold or deduct Taxes from a payment to Seller under the Transaction Documents or directs a third party to do so, Purchaser shall (i) promptly notify the Seller in advance of undertaking such withholding or deduction and (ii) at Seller's expense, take all actions including without limitation (A) providing tax certifications or making a claim for relief from such withholding or deduction under applicable law, treaty or agreement to eliminate or reduce such withholding and (B) cause to be given to Seller such assistance and such information, in each case, as may reasonably be necessary to enable Seller to claim exemption from any such withholding, reduction (or refund) thereof, or credit therefor, and in each case shall furnish Seller proper evidence of the Taxes withheld and remitted by Purchaser (or the third party) to the relevant taxing authority. Notwithstanding the above, if withholding arises in respect of a payment under this Agreement by Purchaser to Seller as a result of an assignment by Purchaser or as a result of a change in Purchaser's status as a United States person, as such term is defined in Section 7701(a)(30) of the Code, then Purchaser shall pay such additional amounts to Seller as necessary so that the net amount received by Seller, after all required deductions and withholdings (including with respect to such additional amounts), is an amount equal to the amount that it would have received had no such deductions or withholdings been made. In addition, for the avoidance of doubt, no withholding by Purchaser from the payment of the Upfront Purchase Price in respect of U.S. federal withholding taxes will be undertaken unless the Seller fails to comply with its obligations under Section 6.3(a)(vii).

(f) The Parties agree not to take any position that is inconsistent with the provisions of this Section 5.13 and Section 10.4 on any tax return or in any audit or other judicial or administrative proceeding unless (i) the other Party has consented to the taking of such position, or (ii) the Party that contemplates taking such an inconsistent position has been advised by a nationally recognized tax counsel in writing that it is unable to conclude that the position specified in this Section 5.13 is more likely than not to prevail if challenged by the tax authority having jurisdiction of the relevant Tax.

Section 5.14 Rights Transfer Events. If Seller desires to effectuate a Rights Transfer Event, then Seller shall provide reasonable (and at least [*]) prior written notice to Purchaser before entering into any definitive binding agreement to effectuate a Rights Transfer Event.

Section 5.15 Change in Name or Organization. Seller shall provide Purchaser with written notice not less than [*] prior to any change in, or amendment or alteration of, Seller's (a) legal name, (b) form or type of organization, or (c) jurisdiction of organization.

Section 5.16 Lien Releases. On the Closing Date, Seller shall cause an UCC-3 amendment to be filed, in each case in form and substance reasonably satisfactory to Purchaser, evidencing the release of Liens in respect of the Purchased Assets.

Section 5.17 Exclusive Dealing. From the date of this Agreement until the Closing, or the earlier termination of this Agreement in accordance with Article IX, Seller shall not (and Seller shall cause its Affiliates and any of its or their Affiliates' Representatives to not) directly or indirectly: (a) solicit, initiate, encourage or otherwise facilitate the submission of any proposal or offer from any Person relating to, or enter into or consummate any transaction relating to, the acquisition of the Purchased Assets or any merger, recapitalization, share exchange, sale or exclusive license of assets or any similar transaction or any other alternative to the transactions contemplated hereby or (b) participate in any discussions or negotiations regarding, furnish any information with respect to, assist or participate in, or facilitate in any other manner, any effort or attempt by any Person to do or seek any of the foregoing. Seller shall notify Purchaser promptly if any Person makes any proposal, offer, inquiry or contact with respect to any of the foregoing (whether solicited or unsolicited) and shall provide Purchaser with oral and written notice of the terms and conditions of such proposal, offer, inquiry or contact and the identity of the Person or group of Persons making any such proposal, offer, inquiry or contact. Seller shall, and shall direct its Representatives and Affiliates to, (x) immediately cease and cause to be terminated all existing discussions or negotiations with any Person conducted heretofore with respect to any other transaction proposal and (y) promptly after the date hereof request the prompt return or destruction of all confidential information previously furnished to such Person(s) for the purpose of evaluating a possible transaction proposal. It is understood that any violation of the restrictions set forth in this Section 5.17 by any Person covered by Section 5.17, whether or not such Person is purporting to act on behalf of Seller, shall be deemed to be a breach of Section 5.17 by Seller.

Section 5.18 Preservation of the Purchased Assets. From the date of this Agreement until the Closing, or the earlier termination of this Agreement in accordance with Article IX, Seller shall not:

(a) sell, transfer, license, hypothecate, abandon, assign or in any manner convey or impose any Lien on the Purchased Assets;

(b) take any action (or refrain from taking any action) that would reasonably be expected to give rise to a material breach or default by Seller under any Related Agreement, other than the Manufacturing Rights Agreement (solely to the extent not executed between the date of this Agreement and the Closing Date);

(c) enter into, adopt, terminate, modify, renew, amend, or waive, release or assign any rights or claims under (including by accelerating material rights or benefits under) any Related Agreement, [*]; or

(d) fail to perform its obligations under any Related Agreement, other than the Manufacturing Rights Agreement (solely to the extent not executed between the date of this Agreement and the Closing Date);

(e) take any action for the winding up, liquidation, dissolution or reorganization of Seller or for the appointment of a receiver, administrator or administrative receiver, trustee or similar officer of its assets or revenues;

(f) settle any Action or material claim or waive any material claims or rights of material value related to the Purchased Assets; or

(g) enter into any agreement to do any of the foregoing.

Section 5.19 Royalty Reporting. Seller shall exercise commercially reasonable efforts, continually until achieved, [*].

ARTICLE VI
THE CLOSING

Section 6.1 Closing. The closing of the transactions contemplated hereby (the "Closing") shall take place at 10:00 a.m. Boston time within one (1) Business Day of the satisfaction or waiver of the conditions set forth in Section 6.3 at the offices of Ropes & Gray LLP located at 800 Boylston Street, Boston, MA 02199, or such other place or time as the Parties mutually agree (such date, the "Closing Date"); *provided* that the Closing Date shall not occur earlier than the date that is three (3) Business Days following the date hereof.

Section 6.2 Payment of Purchase Price.

(a) On the Closing Date, Purchaser shall deliver (or cause to be delivered) to Seller payment of the Upfront Purchase Price by wire transfer of immediately available funds to Seller Account, without any deduction for withholding or other Taxes (subject to Section 5.13(e)) and without any other set off or deduction of any kind.

(b) Subject to Section 2.2(c), Purchaser shall deliver (or cause to be delivered) to Seller payment of each Milestone Payment no later than [*] following achievement of the applicable Milestone Payment Event, by wire transfer of immediately available funds to Seller Account, without any deduction for withholding or other Taxes (subject to Section 5.13(e)).

Section 6.3 Conditions to Closing.

(a) The obligation of Purchaser to consummate the transactions contemplated hereby on the Closing Date is subject to the satisfaction or waiver at or prior to the Closing of the following conditions:

(i) Seller shall have delivered to a duly executed counterpart to the Bill of Sale, evidencing the sale and assignment to Purchaser of the Purchased Assets.

(ii) Seller shall have delivered to Purchaser a certificate of an executive officer of Seller, dated as of the Closing, certifying as to the (i) attached copies of the organizational documents of Seller and resolutions of the governing body of Seller authorizing and approving the execution, delivery and performance by Seller of the Transaction Documents and the transactions contemplated thereby and (ii) the incumbency of the officer or officers of Seller who have executed and delivered the Transaction Documents, including therein a signature specimen of each such officer or officers.

(iii) Seller shall have delivered to Purchaser either (i) the SVB Loan Consent approving the execution, delivery and performance by Seller of this Agreement and the transactions contemplated hereby, in form and substance reasonably satisfactory to Purchaser, such consent to be accompanied by, promptly after the Closing (and in any event no later than 11:59 p.m. Eastern Standard Time on the Closing Date), evidence of a duly filed UCC-3 amendment evidencing the release of Liens in respect of the Purchased Assets or (ii) evidence of a payoff letter, in form and substance reasonably satisfactory to Purchaser, from the secured parties in respect of the SVB Loan Agreement, certifying that upon receipt by or on behalf of Seller of the amount specified in such payoff letter, all Liens against Seller held in favor of such secured parties shall be released with no further action and that such secured parties will, promptly upon receipt of the specified amount, deliver to Seller a duly executed UCC-3 Termination Statement, in a proper form for filing, in respect of such Liens, which Seller shall promptly record.

(iv) (A) The representations and warranties (other than the Seller Fundamental Representations) set forth in Article III (without giving effect to any materiality or Material Adverse Effect qualifiers contained therein) shall be true and correct in all respects on the date hereof and on the Closing Date as though made on such date, except in each case to the extent that the failure of such representations and warranties to be so true and correct would not have a Material Adverse Effect, (B) the Seller Fundamental Representations shall be true and correct in all respects on the date hereof and on the Closing Date as though made on such date, (C) Seller shall have performed and complied in all material respects with the agreements and conditions required by this Agreement to have been performed or complied with by it prior to or at the Closing and (D) there shall not have occurred a Material Adverse Effect since the date hereof.

(v) Seller shall have delivered to Purchaser a certificate of an executive officer of Seller, dated as of the Closing, certifying that the conditions set forth in Section 6.3(a)(iv) have been fulfilled.

(vi) The Related Agreements, other than the Manufacturing Rights Agreement (solely to the extent not executed between the date of this Agreement and the Closing Date), remain in full force and effect.

(vii) Seller shall have delivered to Purchaser a duly completed and executed IRS Form W-9.

(b) The obligation of Seller to consummate the transactions contemplated hereby on the Closing Date is subject to the satisfaction or waiver at or prior to the Closing of the following conditions:

(i) Purchaser shall have delivered a duly executed counterpart to the Bill of Sale, evidencing the sale and assignment to Purchaser of the Purchased Assets.

(ii) Purchaser shall have delivered to Seller a certificate of an executive officer or other authorized signatory of Purchaser, dated as of the Closing, certifying as to the incumbency of the officer or officers of Purchaser who have executed and delivered the Transaction Documents, including therein a signature specimen of each such officer or officers.

(iii) Purchaser shall have delivered to Seller a duly completed and executed IRS Form W-9 pursuant to Section 5.13(b).

(iv) (A) The representations and warranties (other than the Purchaser Fundamental Representations) set forth in Article IV (without giving effect to any materiality or material adverse effect qualifiers contained therein) shall be true and correct in all respects on the date hereof and on the Closing Date as though made on such date, except in each case to the extent that the failure of such representations and warranties to be so true and correct would not have a material adverse effect on the ability of Purchaser to consummate the transactions contemplated hereby; (B) the Purchaser Fundamental Representations shall be true and correct in all respects on the date hereof and on the Closing Date as though made on such date and (C) Purchaser shall have performed and complied in all material respects with the agreements and conditions required by this Agreement to have been performed or complied with by it prior to or at the Closing.

(v) Seller shall have delivered to Purchaser a certificate of an executive officer of Seller, dated as of the Closing, certifying that the conditions set forth in Section 6.3(b)(iv) have been fulfilled.

ARTICLE VII
INDEMNIFICATION

Section 7.1 Indemnification by Seller. Seller agrees to indemnify and hold harmless Purchaser, its Affiliates and its and their respective Representatives (each, a "Purchaser Indemnified Party") from and against, and will pay to each Purchaser Indemnified Party the amount of, any and all Losses awarded against or incurred or suffered by such Purchaser Indemnified Party, whether or not involving a Third Party Claim, arising out of or resulting from (a) any fraud or breach of any representation or warranty made by Seller in any of the Transaction Documents or certificates delivered by Seller to Purchaser in writing pursuant to this Agreement, (b) any breach of or default under any covenant or agreement of Seller in any of the Transaction Documents, (c) any Excluded Assets or Excluded Liabilities and Obligations, and (d) any fees, expenses, costs, liabilities or other amounts incurred or owed by Seller or its Affiliates to any brokers, financial advisors or comparable other Persons retained or employed by it in connection with the transactions contemplated by this Agreement; *provided*, *however*, that the foregoing shall

exclude (i) any indemnification of any Purchaser Indemnified Party having the effect of imposing on Seller any recourse liability for the Purchased Assets because of the insolvency or other creditworthiness problems of the Licensee or the insufficiency of the Purchased Assets, whether as a result of the amount of cash flow resulting from sales or licensing of any Royalty Product or otherwise, in each case unless resulting from the breach or default by Seller of or under any of the Transaction Documents, or (ii) any Losses of any Purchaser Indemnified Party to the extent resulting from (A) the gross negligence, willful misconduct or fraud of any Purchaser Indemnified Party, (B) the failure of Licensee or Stanford to perform any of its obligations under the applicable License Agreement, unless resulting from the breach or default by the Seller of or under the applicable License Agreement or hereunder, (C) any matter in respect of which any Seller Indemnified Party would be entitled to indemnification under Section 7.2, or (D) acts or omissions of the Seller based upon the express written instructions from any Purchaser Indemnified Party. Any amounts due to any Purchaser Indemnified Party hereunder shall be payable by Seller to such Purchaser Indemnified Party upon demand.

Section 7.2 Indemnification by Purchaser. Purchaser agrees to indemnify and hold each of Seller and its Affiliates and any or all of their respective Representatives (each, a "Seller Indemnified Party") harmless from and against, and will pay to each Seller Indemnified Party the amount of, any and all Losses awarded against or incurred or suffered by such Seller Indemnified Party, whether or not involving a Third Party Claim, arising out of or resulting from (a) any fraud or breach of any representation or warranty made by Purchaser in any of the Transaction Documents and (b) any breach of or default under any covenant or agreement of Purchaser in any Transaction Document to which Purchaser is party; *provided*, *however*, that the foregoing shall exclude any Losses of any Seller Indemnified Party to the extent resulting from (i) the gross negligence, willful misconduct or fraud of any Seller Indemnified Party, (ii) the failure of Licensee or Stanford to perform any of its obligations under the applicable License Agreement, (iii) any matter in respect of which any Purchaser Indemnified Party would be entitled to indemnification under Section 7.1, or (iv) acts or omissions of the Purchaser based upon the express written instructions from any Seller Indemnified Party. Any amounts due to any Seller Indemnified Party hereunder shall be payable by Purchaser to such Seller Indemnified Party upon demand.

Section 7.3 Materiality. For purposes of determining the amount of any Losses resulting from any breach by Seller or Purchaser of their respective representations and warranties pursuant to Section 7.1 or Section 7.2, as applicable (but not for determining the existence of any such breach (and therefore, whether any indemnification is owed)), and without limiting Section 7.7 or Section 7.8, all such representations and warranties that are qualified by materiality or by reference to a Material Adverse Effect shall be deemed to be not so qualified, as applicable.

Section 7.4 Procedures for Third Party Claims.

(a) If any claim or demand made by any Person other than Purchaser or Seller against a Purchaser Indemnified Party or a Seller Indemnified Party, as applicable (such party, the "Indemnified Party" and such claim, a "Third Party Claim") shall be brought or alleged against an Indemnified Party in respect of which indemnity is to be sought against the other Party pursuant to Section 7.1 or Section 7.2 (the "Indemnifying Party"), the Indemnified Party shall, promptly after receipt of notice of the commencement of such Third Party Claim, notify the Indemnifying Party in writing of the commencement thereof, enclosing a copy of all papers served, if any;

provided, that the failure to so notify such Indemnifying Party will not relieve the Indemnifying Party from any liability that it may have to any Indemnified Party under Section 7.1 or Section 7.2 unless, and only to the extent that, the Indemnifying Party is actually materially prejudiced by such failure.

(b) In the event that any Third Party Claim is brought against an Indemnified Party and it notifies the Indemnifying Party of the commencement thereof in accordance with this Section 7.3, the Indemnifying Party will be entitled, at the Indemnifying Party's sole cost and expense, to participate therein and, to the extent that it may wish, to assume the defense thereof, with counsel reasonably satisfactory to such Indemnified Party, and, after notice from the Indemnifying Party to such Indemnified Party of its election so to assume the defense thereof, the Indemnifying Party will not be liable to such Indemnified Party under this Article VII for any legal or other expenses subsequently incurred by such Indemnified Party in connection with the defense thereof other than reasonable costs of investigation; *provided*, that, if the Third Party Claim relates to Taxes and the Indemnifying Party has elected to assume the defense thereof, the Indemnified Party shall have the right, at the Indemnified Party's sole cost and expense, to participate therein and such Third Party Claim will not be settled without its written consent (such consent not to be unreasonably withheld conditioned or delayed). Notwithstanding the foregoing, the Indemnifying Party may not assume the defense to a Third Party Claim (i) involving criminal liability of the Indemnified Party or any of its Affiliates or Representatives, (ii) in which equitable relief other than monetary damages is sought against the Indemnified Party or any of its Affiliates or Representatives, or (iii) if the Indemnifying Party has not notified the Indemnified Party in writing that it will be liable to indemnify the Indemnified Party with respect to all Losses relating to such Third Party Claim.

(c) In any such Third Party Claim, an Indemnified Party shall have the right to retain its own counsel, but the reasonable fees and expenses of such counsel shall be at the sole cost and expense of such Indemnified Party unless (a) the Indemnifying Party and the Indemnified Party shall have mutually agreed to the retention of such counsel, (b) the Indemnifying Party has assumed the defense of such Action and has failed within a reasonable time to retain counsel reasonably satisfactory to such Indemnified Party, (c) the named parties to any such Third Party Claim (including any impleaded parties) include both the Indemnifying Party and the Indemnified Party and representation of both parties by the same counsel would be inappropriate due to actual or potential conflicts of interests between them based on the advice of counsel to the Indemnified Party, or (d) the Indemnifying Party is not permitted to assume the defense of such Third Party Claim pursuant to Section 7.4(b).

(d) The Indemnifying Party shall not be liable for any settlement of any Third Party Claim effected without its written consent (such consent not to be unreasonably withheld, conditioned or delayed), but, if settled with such consent or if there be a final judgment for the plaintiff, the Indemnifying Party agrees to indemnify the Indemnified Party from and against any Loss by reason of such settlement or judgment. No Indemnifying Party shall, without the prior written consent of the Indemnified Party, effect any settlement, compromise or discharge of any pending or threatened Third Party Claim in respect of which any Indemnified Party is or could have been a party and indemnity could be sought hereunder by such Indemnified Party, unless such settlement, compromise or discharge, as the case may be, (i) includes a general and unconditional written release of such Indemnified Party and its Affiliates, in form and substance

reasonably satisfactory to the Indemnified Party, from all liability on claims that are the subject matter of such Action, (ii) does not include any statement as to an admission of fault, culpability, failure to act or violation of Law or rights of any Person by or on behalf of any Indemnified Party or its Affiliates, (iii) does not impose any continuing material obligation or restrictions on any Indemnified Party or its Affiliates, and (iv) does not involve any injunctive relief binding on the Indemnified Party or its Affiliates.

Section 7.5 Other Claims. A claim by an Indemnified Party under this Article VII for any matter not involving a Third Party Claim and in respect of which such Indemnified Party would be entitled to indemnification hereunder may be made by delivering, in good faith, a written notice of demand to the Indemnifying Party, which notice shall contain (a) a description and the amount of any Losses incurred or suffered or an estimate of Losses reasonably expected to be incurred or suffered by the Indemnified Party if known, (b) a statement that the Indemnified Party is entitled to indemnification under this Article VII for such Losses and a reasonable explanation of the basis therefor, and (c) a demand for payment in the amount of such Losses or an estimate of such Losses if known; *provided*, that the failure to so notify such Indemnifying Party will not relieve the Indemnifying Party from any liability that it may have to any Indemnified Party under Section 7.1 or Section 7.2 unless, and only to the extent that, the Indemnifying Party is actually materially prejudiced by such failure. For all purposes of this Section 7.5, Seller shall be entitled to deliver such notice of demand to Purchaser on behalf of Seller Indemnified Parties, and Purchaser shall be entitled to deliver such notice of demand to Seller on behalf of Purchaser Indemnified Parties.

Section 7.6 Time Limitations.

(a) Seller shall have liability under Section 7.1 with respect to any breach of any representation or warranty made by Seller in Article III of this Agreement only if, on or prior to the date that is [*] after the Closing Date, Purchaser notifies Seller of a claim in respect of such breach, specifying the factual basis of such claim in reasonable detail (other than any breach of any representation or warranty resulting from fraud or willful misconduct on the part of Seller or with respect to any Seller Fundamental Representations, as to which a claim may be made at any time until the date that is [*] after the termination of this Agreement). Covenants or agreements to be performed after the Closing shall terminate and expire on the date that is [*] after the last date on which such covenant or agreement is to be performed (excluding covenants and agreements in which no date is specified, which shall terminate and expire on the date that is [*] after the termination of this Agreement).

(b) Purchaser shall have liability under Section 7.2 with respect to any breach of any representation or warranty made by Purchaser in Article IV of this Agreement only if, on or prior to the date that is [*] after the Closing Date, Seller notifies Purchaser of a claim in respect of such breach, specifying the factual basis of such claim in reasonable detail (other than any breach of any representation or warranty resulting from fraud or willful misconduct on the part of Purchaser or with respect to any Purchaser Fundamental Representations, as to which a claim may be made at any time until the date that is [*] after the termination of this Agreement). Covenants or agreements to be performed after the Closing shall terminate and expire on the date that is [*] after the last date on which such covenant or agreement is to be performed (excluding covenants and agreements in which no date is specified, which shall terminate and expire on the date that is [*] after the termination of this Agreement).

Section 7.7 Limitations on Liability.

(a) No Party shall be liable for any consequential (including lost profits), punitive, special, indirect or incidental damages under this Article VII (and no claim for indemnification hereunder shall be asserted) as a result of any breach or violation of any covenant or agreement of such party (including under this Article VII) in or pursuant to this Agreement, except in respect of a claim for fraud, willful misconduct, intentional misrepresentation, or breaches of Article VIII or to the extent a court of competent jurisdiction awards such damages to a third party in connection with a Third Party Claim. Notwithstanding the foregoing, the Parties acknowledge and agree that (x) Purchaser's Losses, if any, for any such Action will typically include Losses for Purchased Assets payments that Purchaser was entitled to receive or would have received absent such breach, in each case in respect of its ownership of the Purchased Assets, as well as expenses incurred in connection with enforcement of this Agreement, and (y) Purchaser shall be entitled to make claims for all such missing, delayed or diminished Purchased Assets payments as Losses hereunder, and such missing, delayed or diminished Purchased Assets payments shall not be deemed consequential (including lost profits), punitive, special or indirect damages.

(b) Other than in respect of claims for fraud, willful misconduct, intentional misrepresentation, breaches of Article VIII, Third Party Claims or Excluded Liabilities and Obligations, in no event shall Seller's aggregate liability for Losses under Section 7.1(a) or Purchaser's aggregate liability for Losses under Section 7.2(a) exceed (i) (A) in the case of Seller, the Purchase Price less the Purchased Assets payments actually received by Purchaser (and not required to be withheld by or returned or reimbursed to Licensee or Seller, other than pursuant to any indemnification obligation of the Purchaser hereunder) as of the date any claim for Losses is made and (B) in the case of Purchaser, the Purchase Price, and (ii) Seller shall not have any liability for Losses under Section 7.1(a) and Purchaser shall not have any liability for Losses under Section 7.2(a), unless and until the aggregate amount of all Losses incurred by the Indemnified Party equals or exceeds [*], in which event the Indemnifying Party shall be liable for Losses including such amount.

Section 7.8 Right of Set-Off.

(a) Subject to the procedures set forth in this Section 7.8, Purchaser shall have the right, but not the obligation, to deduct from any Milestone Payment, in whole or in part, amounts owed or claimed in good faith to be owed by Seller to any Purchaser Indemnified Party pursuant to the Transaction Documents; *provided* that, any such deduction shall not exceed [*] ([*]%) of the Milestone Payment otherwise due to Seller, and *provided further* that to the extent Purchaser deducts any such amounts, it shall not be entitled to seek indemnification under this Article VII with respect to such deducted amounts.

(b) If Purchaser exercises its right of Set-Off under this Section 7.8, then Purchaser shall provide written notice to Seller, which notice shall contain (a) a description and the amount of any Losses incurred or suffered or an estimate of Losses reasonably expected to be incurred or suffered by the Indemnified Party if known, (b) a statement that the Indemnified Party is entitled to indemnification under this Article VII for such Losses and a reasonable explanation of the basis therefor, and (c) the amount of such Losses or an estimate of such Losses if known;

provided, that the failure to so notify Seller will not relieve Seller from any liability that it may have to any Purchaser Indemnified Party under Section 7.1 unless, and only to the extent that, Seller is actually materially prejudiced by such failure.

(c) If Seller notifies Purchaser within [*] following its receipt of such notice that Seller disputes Purchaser's right of Set-Off under this Section 7.8, then such dispute shall be escalated to the senior leadership of the Parties for resolution in good faith (which senior leadership shall be the Chief Executive Officer of Seller and the head of Blackstone Life Sciences), within [*] of the date on which such dispute is referred to them. If the senior leadership, notwithstanding their good faith efforts, is unable to resolve such dispute within such [*] period, then Purchaser may make such Set-Off. Any Set-Off permitted under this Section 7.8 shall be subject to the limitations set forth in Section 7.6 and Section 7.7. For the avoidance of doubt, (i) Purchaser's exercise of the foregoing right of Set-Off will not limit Purchaser's right to pursue any other available remedies in law or equity, including as set forth in the Article VII but subject to Section 7.9 and (b) Seller retains its right to challenge such Set-Off and does not waive its right, nor shall its right be limited by this Section 7.8, to pursue any remedy in law or equity.

Section 7.9 Exclusive Remedy. Except in the case of fraud or intentional breach (pursuant to which each of Purchaser and Seller accordingly preserves all remedies available with respect to any such claim or matter based thereon under applicable Law), the indemnification afforded by this Article VII shall be the sole and exclusive remedy for any and all Losses awarded against or incurred or suffered by a Party in connection with the transactions contemplated by the Transaction Documents, including with respect to any breach of any representation or warranty made by a Party in any of the Transaction Documents or any certificate delivered by a Party to the other Party in writing pursuant to this Agreement or any breach of or default under any covenant or agreement by a Party pursuant to any Transaction Document. Notwithstanding the foregoing, nothing in this Agreement shall operate to limit the rights of a Party to seek equitable remedies (including specific performance or injunctive relief) or, in the case of fraud or intentional breach committed by or on behalf of the other Party, any remedies available to it under applicable Law.

ARTICLE VIII
CONFIDENTIALITY

Section 8.1 Confidentiality. Except as provided in this Article VIII or otherwise agreed in writing by the parties, the Parties agree that, during the term of this Agreement and until the seventh (7th) anniversary of the date of termination of this Agreement (or such longer period as required by the Vaxcyte License Agreement solely in respect of information deemed Confidential Information thereunder), each party (the "Receiving Party") shall keep confidential, and shall not publish or otherwise disclose to any Person (other than its Affiliates, its and its Affiliates' Representatives, in each case, who have agreed to be bound by the provisions of this Section 8.1 or are otherwise subject to reasonable restrictions of confidentiality consistent with this Section 8.1) and shall not use or disclose for any purpose other than as provided for in the Transaction Documents (which includes the exercise of any rights or the performance of any obligations hereunder), any information (whether written or oral, or in electronic or other form) furnished to it by or on behalf of the other party (the "Disclosing Party") pursuant to the Existing Confidentiality Agreement (as defined below) or this Agreement (such information, "Confidential Information" of the Disclosing Party), except for that portion of such information that:

(a) was already in the Receiving Party's possession on a non-confidential basis prior to its disclosure to it by the Disclosing Party, as evidenced by written records (*provided*, if such information was disclosed to the Receiving Party on a non-confidential basis by a party that is not the Disclosing Party, such party had the right to disclose such information to the Receiving Party without any legal, contractual or fiduciary obligation to, any person with respect to such information);

(b) is or becomes generally available to the public other than as a result of an act or omission by the Receiving Party or its Affiliates in breach of this Agreement;

(c) was independently developed by the Receiving Party, as evidenced by written records, without use of or reference to the Confidential Information or in violation of the terms of this Agreement.

Section 8.2 Disclosures to Certain Affiliates. Notwithstanding anything to the contrary provided elsewhere herein, none of Purchaser's Affiliates (including portfolio companies) or its Affiliates' Representatives, or any actual or potential assignees, partners (including prospective and actual limited partners), financing sources or investors (and their Representatives), including, for the avoidance of doubt, Blackstone Inc., shall have any obligations with respect to Confidential Information provided to Purchaser pursuant to this Agreement to the extent that such Confidential Information is not made available to such Affiliates (including portfolio companies), Affiliates' Representatives, or any actual or potential assignees, partners (including prospective and actual limited partners), financing sources or investors (and their Representatives). In addition, the Confidential Information may be disclosed to any of the Persons listed in the foregoing sentence solely for the purpose of assessing, monitoring, negotiating and consummating investment opportunities and the performance of this Agreement, or resolving conflicts relating to this Agreement, or determining the proper allocation of investment opportunities, only if such Person is or agrees to be bound by the confidentiality and use provisions of this Article VIII, and if such disclosure is made, Purchaser shall indemnify the Seller in accordance with Article VII for any breach by such individual of such confidentiality and use provisions; *provided*, *however*, that receipt of Confidential Information by such individual shall not be imputed to the individual's broader business unit (e.g., the broader Affiliate entity).

Section 8.3 Termination of Confidentiality Agreement. Effective at the Closing, the Confidentiality Agreement, dated February 21, 2023 (the "Existing Confidentiality Agreement"), between Seller and Blackstone Life Sciences Advisors L.L.C. shall terminate and be of no further force or effect, and shall be superseded by the provisions of this Article VIII.

Section 8.4 Permitted Disclosure.

(a) In the event that a Receiving Party or its Affiliates or any of its or its Affiliates' Representatives are requested by a Governmental Authority or required by applicable Law, regulation or legal process (including the regulations of a stock exchange or Governmental Authority or the order or ruling of a court, administrative agency or other government or regulatory body of competent jurisdiction) to disclose any Confidential Information, the Disclosing Party shall promptly, to the extent permitted by Law, notify the non-Disclosing Party in writing of such request or requirement so that the non-Disclosing Party may seek an appropriate protective order

or other appropriate remedy (and if the non-Disclosing Party seeks such an order or other remedy, the Disclosing Party will provide such cooperation, at the non-Disclosing Party's sole expense, as the non-Disclosing Party shall reasonably request). If no such protective order or other remedy is obtained and the Disclosing Party or its Affiliates or its or its Affiliates' Representatives are, in the view of their respective counsel (which may include their respective internal counsel), legally required to disclose Confidential Information, the Disclosing Party or its Affiliates or its or its Affiliates' Representatives, as the case may be, shall only disclose that portion of the Confidential Information that their respective counsel advises that Purchaser or its Affiliates or its or its Affiliates' Representatives, as the case may be, are required to disclose and will exercise commercially reasonable efforts, at the non-Disclosing Party's sole expense, to obtain reliable assurance that confidential treatment will be accorded to that portion of the Confidential Information that is being disclosed. In any event, the Receiving Party will not oppose action by the Disclosing Party to obtain an appropriate protective order or other reliable assurance that confidential treatment will be accorded the Confidential Information. Notwithstanding the foregoing, notice to the Disclosing Party shall not be required where disclosure is made (i) in response to a request by a Governmental Authority having competent jurisdiction over the Receiving Party, its Affiliates or its or its Affiliates' Representatives, as the case may be, or (ii) in connection with a routine examination by a regulatory examiner, where in each case such request or examination does not expressly reference Disclosing Party, its Affiliates, the Royalty, the Purchased Assets or this Agreement.

(b) Either Party may disclose Confidential Information with the prior written consent of the Disclosing Party or to the extent such disclosure is reasonably necessary in the following situations:

(i) prosecuting or defending litigation;

(ii) for regulatory, tax or customs purposes;

(iii) for audit purposes, *provided* that each recipient of Confidential Information must be bound by customary obligations of confidentiality and non-use prior to any such disclosure;

(iv) to the extent such disclosure of this Agreement or the transactions contemplated hereby is reasonably necessary to comply with the Securities Act of 1933, as amended, with the Securities Exchange Act of 1934, as amended, or with any rule, regulation or legal process promulgated by the SEC or a stock exchange, *provided* that prior to the submission by the filing Party to the SEC of any filings containing Confidential Information, to the extent practicable and permitted by applicable Law, the filing Party shall provide drafts of such filings to the other Party within a reasonable period of time but in any event no less than [*] prior to the planned date of such submission, to review any redactions related thereto, and the filing Party shall consider in good faith any comments by the other Party thereto;

(v) disclosure to its actual or potential investors and co-investors, and other sources of funding, including debt financing, or potential partners, collaborators or acquirers, and their respective accountants, financial advisors and other

professional representatives, *provided*, that such disclosure shall be made only to the extent customarily required to consummate such investment, financing transaction partnership, collaboration or acquisition and that each recipient of Confidential Information must be bound by customary obligations of confidentiality and non-use prior to any such disclosure; or

(vi) as is necessary in connection with a permitted assignment pursuant to Section 10.3.

Section 8.5 Financial Statements. Notwithstanding anything herein to the contrary, nothing in this Article VIII shall be construed to restrict either Party from (a) providing copies of Royalty Reports to its independent accountants, *provided* such independent accountants have agreed to be bound by the provisions of Section 8.1 or are bound by customary obligations of confidentiality and non-use prior to any such disclosure, or including disclosure of the Purchase Price and the amount and nature of the Purchased Assets in the footnotes to such Party's audited annual financial statements, in each case to the extent so required by GAAP or such Party's independent accountants, or including comparable disclosure in such Party's unaudited quarterly financial statements, (b) providing copies of such audited annual and unaudited quarterly financial statements to such Party's existing or prospective lenders or direct or indirect beneficial owners, as long as such lenders or beneficial owners have agreed to be bound by the provisions of this Article VIII or are otherwise subject to reasonable restrictions of confidentiality, or (c) disclosing Confidential Information in connection with any assignment permitted under Section 10.3, and in accordance with the requirements of this Article VIII.

Section 8.6 Specific Enforcement. Each Party acknowledges and agrees that remedies at law may not be adequate to protect Seller or Purchaser against any actual or threatened breach of this Article VIII by Purchaser or Seller, either of its Affiliates or its or their Affiliates' Representatives, and that Seller and Purchaser (as applicable) shall be entitled to seek specific performance and temporary and permanent injunctive relief or other equitable relief as a remedy for any such actual or threatened breach. Such remedy shall not be deemed to be the exclusive remedy for breach of this Section 8.6 but shall be in addition to all other rights and remedies available at law or equity to Seller or Purchaser (as applicable).

Section 8.7 Use of Name. Except as required by Law, neither Party shall use the name, trademark, service mark, trade name, or symbol or any adaptation thereof of the other Party (including with respect to Purchaser, any reference to "Blackstone") or of any of its Representatives, Affiliates, partners, managers, directors, board members, members, officers, funds, employees or agents for advertising, marketing, endorsement, promotional or sales literature, publicity, public announcement or disclosure in any document employed to obtain funds or financing without the specific prior written consent of an authorized representative of the other Party or individual whose name is to be used as to each such use (which consent may be granted or withheld in such Party's sole discretion). Notwithstanding the foregoing, each Party may use the name, logos, and other insignia of the other Party (including with respect to Purchaser, any reference to "Blackstone") in any "tombstone" or other advertisements, in its publications, marketing or promotional materials to existing and prospective investors and otherwise on the website or in other marketing materials of such Party, as applicable, without the other Party's prior approval.

ARTICLE IX
TERMINATION

Section 9.1 Termination of Agreement.

(a) Prior to the Closing, this Agreement may be terminated at any time prior to the Closing Date by:

(i) either Seller or Purchaser, by written notice to the other Party, if the Closing has not occurred on or before the date that is [*] from the date hereof (the "End Date"); *provided* that the right to terminate this Agreement pursuant to this Section 9.1(a) shall not be available to any Party whose breach of any representation, warranty or covenant contained in this Agreement has been the principal cause of the failure of the Closing to be consummated by such time.

(ii) Purchaser, upon the occurrence of a Material Adverse Effect if such Material Adverse Effect is not capable of being cured or, if curable, would not reasonably be expected to be cured by the End Date.

(b) Following the Closing, this Agreement shall continue in full force and effect until the date on which Purchaser has received the last payment with respect to the Purchased Assets, at which time this Agreement shall automatically terminate.

Section 9.2 Effect of Termination.

(a) Upon the termination of this Agreement pursuant to Section 9.1(a), this Agreement shall become void and of no further force and effect, except for any rights, obligations or claims of either Party that have accrued prior to termination; *provided*, *however*, that (a) the provisions of Article I (Defined Terms and Rules of Construction), Section 5.1 (Public Announcement), this Section 9.2 (Effect of Termination) and Article X (Miscellaneous) shall survive such termination and shall remain in full force and effect and (b) nothing contained in this Section 9.2 shall relieve either party from liability for any breach of this Agreement that occurs prior to termination.

(b) Upon the termination of this Agreement pursuant to Section 9.1(b), this Agreement shall become void and of no further force and effect, except for any rights, obligations or claims of either Party that have accrued prior to termination; *provided*, *however*, that (a) the provisions of Article I (Defined Terms and Rules of Construction), Section 2.3 (No Assumed Obligations), Section 2.4 (Excluded Assets), Section 5.1 (Public Announcement), Section 5.6 (Misdirected Payments) (other than with respect to Section 5.6(c)), Section 5.11 (Audits) (for the period set forth in Section 6.8 of the Vaxcyte License Agreement), Section 5.13 (Tax Matters), Article VII (Indemnification), Article VIII (Confidentiality), this Section 9.2 (Effect of Termination) and Article X (Miscellaneous) shall survive such termination and shall remain in full force and effect, (b) if, upon the termination of this Agreement, any Royalties or other amounts are payable by Licensee to Purchaser hereunder, this Agreement shall remain in full force and effect until any and all such payments have been made in full, and (except as provided in this Section 9.2) solely for that purpose, and (c) nothing contained in this Section 9.2 shall relieve either party from liability for any breach of this Agreement that occurs prior to termination.

ARTICLE X
MISCELLANEOUS

Section 10.1 Specific Performance. Each of the Parties acknowledges that the other Party will have no adequate remedy at law if it fails to perform any of its obligations under any of the Transaction Documents and may be damaged irreparably in the event any of the provisions of this Agreement is not performed in accordance with its specific terms or otherwise are breached or violated. In such event, each of the Parties agrees that the other Party shall have the right, without posting a bond or other undertaking, to seek an injunction or injunctions to prevent breaches or violations of the provisions of this Agreement and to enforce specifically this Agreement and the terms and provisions hereof in any Action instituted in any court of the United States or any state thereof having jurisdiction over the Parties and the matter in addition to any other remedy to which it may be entitled, at law or in equity. Each party further agrees that, in the event of any action for specific performance in respect of such breach or violation, it will not assert, and irrevocably waives, the defense that a bond or other security will be required.

Section 10.2 Notices. All notices, consents, waivers and other communications hereunder shall be in writing and shall be effective (a) upon receipt when sent through the mails, registered or certified mail, return receipt requested, postage prepaid, with such receipt to be effective the date of delivery indicated on the return receipt, (b) upon receipt when sent by an overnight courier, (c) on the date personally delivered to an authorized officer of the party to which sent or (d) on the date transmitted by electronic transmission with a confirmation of receipt, in all cases, with a copy emailed to the recipient at the applicable address, addressed to the recipient as follows:

if to Seller, to:

Sutro Biopharma, Inc.
111 Oyster Point Blvd
South San Francisco, CA 94080
Attention: [*]
Email: [*]

with a copy, which shall not constitute notice, to:

Gibson, Dunn & Crutcher LLP
555 Mission Street
San Francisco, CA 94105
Attention: [*]
Email: [*]

if to Purchaser, to:

BXLS V – Vault L.P.
c/o Blackstone Life Sciences
314 Main Street
15th Floor
Cambridge, MA 02142
Attention: [*]
Email: [*]

With a copy, which shall not constitute notice, to:

Blackstone Life Sciences
314 Main Street
15th Floor
Cambridge, MA 02142
Attention: [*]
Email: [*]

and to:

Ropes & Gray LLP
800 Boylston Street
Prudential Tower
Boston, MA 02199
Attention: [*]
Email: [*]

Each Party may, by notice given in accordance herewith to the other Party, designate any further or different address to which subsequent notices, consents, waivers and other communications shall be sent.

Section 10.3 Successors and Assigns. The provisions of this Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns. Seller shall not be entitled to assign, delegate or otherwise transfer this Agreement or any of its interests, obligations or rights hereunder without the prior written consent of Purchaser, and any such purported assignment, delegation or transfer without such consent shall be void *ab initio* and of no effect; *provided* that Seller may assign this Agreement without the consent of Purchaser (a) to an Affiliate so long as such assignment to an Affiliate shall be at no incremental cost, including Taxes, to Purchaser or (b) to any third party that acquires all or substantially all of Seller's business to which this Agreement relates, whether by merger, sale of assets or otherwise, as long as such assignee agrees in a writing (i) to be bound by all the provisions of this Agreement as if such assignee were the "Seller" under this Agreement and (ii) that in the event withholding or deduction on payments to Purchaser arises that would not have applied if no such assignment had been made, to pay Purchaser such additional amounts as would be necessary so that the Purchaser will receive the net amount after such withholding deductions (including on the payments of any additional amounts) as Purchaser would have received had no such deductions or withholdings been made. Seller shall give notice to Purchaser of any assignment for which consent was not required by Purchaser promptly after the occurrence thereof and, in the event that Seller makes an assignment

to an Affiliate pursuant to clause (a) above, Seller shall remain liable to Purchaser for its obligations to Purchaser hereunder (and Purchaser shall be entitled to seek recovery for any breach or default of an obligation hereunder from Seller or from such Affiliate). Following the Closing, Purchaser may assign any of its obligations and rights hereunder, in whole or in part, without restriction and without consent of Seller; *provided*, *however*, that (A) Purchaser promptly notifies Seller of such assignment, (B) Purchaser remains liable to Seller for its obligations hereunder, (C) Purchaser shall not assign to any biopharmaceutical company (other than Licensee) without Seller's prior written consent; *provided* that, for the avoidance of doubt, a "biopharmaceutical company" shall not include any Person whose primary business includes the purchase and sale of royalties or revenue interests, or the provision of financing in exchange for future royalties or revenue interests, derived from the development or commercialization of pharmaceutical, medical device or similar products, (D) each such assignee complies with Section 5.13(b) (replacing "Purchaser" wherever it appears with such assignee and replacing "Closing Date" with the date that such assignee acquires an interest in Purchaser's rights hereunder), and (E) if Purchaser assigns its right under this Agreement to more than one party, the Licensee shall not be required to pay the Royalty to more than one bank account. Purchaser may assign its right to receive Purchased Assets payments, in whole or in part, without restriction and without notice to or the consent of Seller. Any purported assignment in violation of this Section 10.3 shall be null and void.

Section 10.4 Independent Nature of Relationship. The relationship between Seller and Purchaser is solely that of seller and purchaser, and neither Seller nor Purchaser has any fiduciary or other special relationship with the other Party or any of its Affiliates. Nothing contained herein or in any other Transaction Document shall be deemed (including for tax purposes) to constitute Seller and Purchaser as a partnership, an association, a joint venture or any other kind of entity or legal form.

Section 10.5 No Personal Liability. It is expressly understood and agreed by Seller and Purchaser that:

(a) each of the representations, warranties, covenants and agreements in the Transaction Documents made on the part of Seller is made by Seller and is not intended to be nor is a personal representation, warranty, covenant or agreement of any other Person, including those Persons named in the definition of "Knowledge of Seller" and any other Representative of Seller or Seller's Affiliates (the "Non-Warranting Parties");

(b) other than Seller, no Person, including the Non-Warranting Parties, shall have any liability whatsoever for breach of any representation, warranty, covenant or agreement made in the Transaction Documents on the part of Seller or in respect of any claim or matter arising out of, relating to or in connection with the Transaction Documents or the transactions contemplated thereby;

(c) the provisions of this Section 10.5 are intended to benefit each and every one of the Non-Warranting Parties and shall be enforceable by each and every one of them to the fullest extent permitted by Law; and

(d) the provisions of clauses (a) – (c) of this Section 10.5 shall apply to Purchaser, *mutatis mutandis*.

Section 10.6 Entire Agreement. This Agreement, together with the Exhibits and Schedules hereto, the other Transaction Documents and the Confidentiality Agreement constitute a complete and exclusive statement of the terms of agreement between the parties, and supersede all prior agreements, understandings and negotiations, both written and oral, between the parties, with respect to the subject matter of this Agreement. No representation, inducement, promise, understanding, condition or warranty not set forth herein (or in the Exhibits or Schedules hereto or the other Transaction Documents) has been made or relied upon by either party.

Section 10.7 Governing Law.

(a) THIS PURCHASE AND SALE AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE INTERNAL SUBSTANTIVE LAWS OF THE STATE OF NEW YORK WITHOUT REFERENCE TO THE RULES THEREOF RELATING TO CONFLICTS OF LAW OTHER THAN SECTION 5-1401 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK, AND THE OBLIGATIONS, RIGHTS AND REMEDIES OF THE PARTIES HEREUNDER SHALL BE DETERMINED IN ACCORDANCE WITH SUCH LAWS.

(b) Each of the Parties hereby irrevocably and unconditionally submits, for itself and its property, to the non-exclusive jurisdiction of the Supreme Court of the State of New York sitting in New York County and of the United States District Court of the Southern District of New York, and any appellate court from any thereof, in any Action arising out of, relating to or in connection with this Agreement, or for recognition or enforcement of any Judgment, and each of the Parties hereby irrevocably and unconditionally agrees that all claims in respect of any such Action may be heard and determined in such New York State court or, to the extent permitted by applicable Law, in such federal court. Each of the Parties agrees that a final judgment in any such Action shall be conclusive and may be enforced in other jurisdictions by suit on the Judgment or in any other manner provided by applicable Law.

(c) Each of the Parties hereby irrevocably and unconditionally waives, to the fullest extent it may legally and effectively do so, any objection that it may now or hereafter have to the laying of venue of any Action arising out of or relating to this Agreement in any court referred to in Section 10.7(b). Each of the Parties hereby irrevocably waives, to the fullest extent permitted by applicable Law, the defense of an inconvenient forum to the maintenance of such Action in any such court.

(d) Each of the Parties irrevocably consents to service of process in the manner provided for notices in Section 10.2. Nothing in this Agreement will affect the right of any Party to serve process in any other manner permitted by applicable Law. Each of the Parties waives personal service of any summons, complaint or other process, which may be made by any other means permitted by New York law.

Section 10.8 Waiver of Jury Trial. EACH PARTY HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO

A TRIAL BY JURY IN ANY ACTION DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS PURCHASE AND SALE AGREEMENT, OR THE TRANSACTIONS CONTEMPLATED HEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF THE OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT THE OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTY HAVE BEEN INDUCED TO ENTER INTO THIS PURCHASE AND SALE AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 10.8.

Section 10.9 Severability. If one or more provisions of this Agreement are held to be invalid, illegal or unenforceable by a court of competent jurisdiction, such invalidity, illegality or unenforceability shall not affect any other provision of this Agreement, which shall remain in full force and effect, and the Parties shall replace such invalid, illegal or unenforceable provision with a new provision permitted by applicable Law and having an economic effect as close as possible to the invalid, illegal or unenforceable provision. Any provision of this Agreement held invalid, illegal or unenforceable only in part or degree by a court of competent jurisdiction shall remain in full force and effect to the extent not held invalid, illegal or unenforceable.

Section 10.10 Counterparts. This Agreement may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Agreement shall become effective when each Party shall have received a counterpart hereof signed by the other Party. Any counterpart may be executed by electronic transmission, and such electronic transmission shall be deemed an original.

Section 10.11 Amendments; No Waivers. Neither this Agreement nor any term or provision hereof may be amended, supplemented, restated, waived, changed or modified except with the written consent of the Parties. No failure or delay by either Party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege. No notice to or demand on either Party in any case shall entitle it to any notice or demand in similar or other circumstances. No waiver or approval hereunder shall, except as may otherwise be stated in such waiver or approval, be applicable to subsequent transactions. No waiver or approval hereunder shall require any similar or dissimilar waiver or approval thereafter to be granted hereunder. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by applicable Law.

Section 10.12 Cumulative Remedies. The remedies herein provided are cumulative and not exclusive of any remedies provided by applicable Law.

Section 10.13 Table of Contents and Headings. The Table of Contents and headings of the Articles and Sections of this Agreement have been inserted for convenience of reference only, are not to be considered a part hereof and shall in no way modify or restrict any of the terms or provisions hereof.

{SIGNATURE PAGE FOLLOWS}

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the day and year first written above.

SUTRO BIOPHARMA, INC.

By: /s/ William J. Newell
Name: William J. Newell
Title: Chief Executive Officer

[*Signature Page to Purchase and Sale Agreement*]

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the day and year first written above.

BXLS V – VAULT L.P.

By: Blackstone Life Sciences Advisors L.L.C. on behalf of BXLS V – Vault L.P.

By: /s/ Robert Liptak
Name: Robert Liptak
Title: Chief Operating Officer

[*Signature Page to Purchase and Sale Agreement*]

EXHIBIT A

FORM OF BILL OF SALE

[*]

EXHIBIT B

FORM OF [*]

[*]

EXHIBIT C

SUTRO PATENTS

[*]

EXHIBIT D

FORM OF LICENSEE INSTRUCTION

[*]

EXHIBIT E

FORM OF LICENSEE LETTER AGREEMENT

[*]

EXHIBIT F

PURCHASER ACCOUNT

[*]

EXHIBIT G

SELLER ACCOUNT

[*]

EXHIBIT H

DISCLOSURE SCHEDULE

[*]

EXHIBIT I

VAXCYTE LICENSE AGREEMENT

[*]

EXHIBIT J

STANFORD LICENSE AGREEMENT

[*]

EXHIBIT K

PRESS RELEASE

[*]

SCHEDULE 1.1

(a) **Purchaser**

(b) [*]**Seller**

[*]

EXHIBIT 10.2

CONSENT AND FIFTH AMENDMENT TO
LOAN AND SECURITY AGREEMENT

THIS CONSENT AND FIFTH AMENDMENT TO LOAN AND SECURITY AGREEMENT (this **"Amendment"**) is entered into as of June 21, 2023, by and among OXFORD FINANCE LLC, a Delaware limited liability company with an office located at 115 South Union Street, Suite 300, Alexandria, VA 22314, as collateral agent (in its individual capacity, **"Oxford"**; and in its capacity as collateral agent, **"Collateral Agent"**), the Lenders listed on Schedule 1.1 of the Loan Agreement (as defined below) or otherwise party thereto from time to time including Oxford in its capacity as a Lender, OXFORD FINANCE FUNDING IX, LLC, with an office located at 115 South Union Street, Suite 300, Alexandria, VA 22314 ("OFF IX"), OXFORD FINANCE FUNDING 2019-1, LLC, with an office located at 115 South Union Street, Suite 300, Alexandria, VA 22314 ("OFF 2019-1"), OXFORD FINANCE FUNDING XIII, LLC, with an office located at 115 South Union Street, Suite 300, Alexandria, VA 22314 ("OFF XIII"), and SILICON VALLEY BANK, a division of FIRST-CITIZENS BANK & TRUST COMPANY (successor by purchase to the Federal Deposit Insurance Corporation as Receiver for Silicon Valley Bridge Bank, N.A. (as successor to Silicon Valley Bank)), with an office located at 3003 Tasman Drive, Santa Clara, CA 95054 (**"Bank"** or **"SVB"**) (Oxford together with OFF IX, OFF 2019-1, OFF XIII and SVB, each a **"Lender"** and collectively, the **"Lenders"**), SUTRO BIOPHARMA, INC., a Delaware corporation with offices located at 111 Oyster Point Boulevard, South San Francisco, CA 94080 (**"Borrower"**).

Recitals

WHEREAS, Collateral Agent, Borrower and the Lenders party thereto from time to time have entered into that certain Loan and Security Agreement, dated as of February 28, 2020 (as amended, supplemented or otherwise modified from time to time, the **"Loan Agreement"**) pursuant to which the Lenders have provided to Borrower certain loans in accordance with the terms and conditions thereof;

WHEREAS, Borrower has requested that Collateral Agent and the Lenders consent to Borrower entering into that certain Purchase and Sale Agreement, in substantially the same form as the draft of the same attached hereto as Exhibit A (such Purchase and Sale Agreement, in substantially the same form as the draft of the same attached hereto as Exhibit A, the **"Purchase Agreement"**), with BXLS V—Vault L.P. (**"Purchaser"**), dated on or about the date hereof, which Purchase Agreement provides for the sale by the Borrower to the Purchaser of the **"Purchased Assets"** (as such term is defined in the Purchase Agreement) (the **"Purchased Assets"**) which Purchased Assets include the rights to certain royalty payments under the Vaxcyte Agreement and related rights and assets, consummating the transactions contemplated thereby and performing its obligations thereunder, and although the Lenders and Collateral Agent are under no obligation to do so, the Lenders and Collateral Agent have agreed to consent to the Borrower entering into the Purchase Agreement and consummating the transactions contemplated thereby and performing its obligations thereunder, but only to the extent, in accordance with the terms, subject to the conditions and in reliance upon the representations and warranties set forth below;

WHEREAS, Borrower has also requested that Collateral Agent and the Lenders make certain revisions to the Loan Agreement, but only to the extent, in accordance with the terms, subject to the conditions and in reliance upon the representations and warranties set forth below;

WHEREAS, although the Lenders and Collateral Agent are under no obligation to do so, the Lenders and Collateral Agent have agreed to make certain revisions to the Loan Agreement, but only to the extent, in accordance with the terms, subject to the conditions and in reliance upon the representations and

warranties set forth below; and WHEREAS, in connection with the foregoing, Borrower, the Lenders and Collateral Agent desire to consent to the Borrower entering into the Purchase Agreement, consummating the purchase and sale of the Purchased Assets in accordance therewith and performing its obligations thereunder, and to amend certain provisions of the Loan Agreement, but only to the extent, in accordance with the terms, subject to the conditions and in reliance upon the representations and warranties set forth below;

NOW, THEREFORE, in consideration of the promises, covenants and agreements contained herein, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, Borrower, the Lenders and Collateral Agent hereby agree as follows:

Section 1.Definitions. Capitalized terms used herein but not otherwise defined shall have the respective meanings given to them in the Loan Agreement.

Section 2.Consent. Notwithstanding the prohibitions set forth in Sections 7.1 of the Loan Agreement and any other prohibitions set forth in the Loan Agreement and/or any other Loan Document, Collateral Agent and the Lenders hereby (a) consent to the Borrower entering into the Purchase Agreement, (b) consent to the consummation of the transactions contemplated by the Purchase Agreement in accordance with its terms, including the sale of the Purchased Assets, (c) consent to the Borrower thereafter performing its obligations under the Purchase Agreement, (d) agree that the Borrower's entry into the Purchase Agreement and the consummation of the transactions contemplated thereby and the Borrower's performance of its obligations under the Purchase Agreement shall not constitute an Event of Default under the Loan Agreement and/or any other Loan Document, (e) release and terminate all Liens and security interests on the Purchased Assets, to the extent that the Purchased Assets constitute a part of the Collateral, and, upon and in connection with the consummation of the sale of the Purchased Assets shall file a UCC-3 amendment removing the Purchased Assets from the definition of Collateral therein, and agree to execute and deliver to the Borrower, at the Borrower's sole expense, all other documents that the Borrower shall reasonably request to evidence such release and termination, (f) confirm that the Vaxcyte Agreement shall continue to constitute a Permitted License following the consummation of the sale of the Purchased Assets (it being understood and acknowledged that the Purchased Assets will thereafter be paid directly to the Purchaser and not into a Collateral Account), (g) agree and acknowledge that the Purchase Agreement provides for Borrower to grant to the Purchaser a protective security interest in and to all right, title and interest of Borrower in, to and under the Purchased Assets and consents to the Purchaser's filing of a UCC-1 financing statement (and continuation statements with respect to such financing statements when applicable) in such manner and such jurisdictions as are necessary or appropriate to evidence and perfect the sale of the Purchased Assets and Purchaser's security interest in the Purchased Assets, and (h) authorize and direct the Collateral Agent to take such actions as shall be necessary to effectuate the foregoing.

Borrower shall deliver to Collateral Agent a fully-executed copy of the Purchase Agreement promptly following execution thereof. All payments made by the Purchaser to Borrower under the Purchase Agreement shall be deposited into and/or wired to a Collateral Account that is subject to Control Agreements in favor of Collateral Agent. Collateral Agent's and the Lenders' agreement to consent to the Borrower entering into the Purchase Agreement and consummating the transactions contemplated thereby and performing its obligations thereunder, shall in no way obligate Collateral Agent or any Lender to make any other modifications to the Loan Agreement or to waive Borrower's compliance with any other terms of the Loan Documents, and shall not limit or impair Collateral Agent's and the Lenders' right to demand strict performance of all other terms and covenants as of any date. The consent set forth above shall not be deemed or otherwise construed to constitute a waiver of any other provisions of the Loan Agreement in connection with any other transaction.

Section 3.Amendments.

3.1 Effective as of July 1, 2023, Section 13.1 of the Loan Agreement is hereby amended by amending and restating the following definitions in their entirety as follows:

"Basic Rate" is, with respect to the Term Loan, the floating per annum rate of interest (based on a year of three hundred sixty (360) days) equal to the greater of (i) eight and seven one hundredths of one percent (8.07%) and (ii) the sum of (a) 1-Month CME Term SOFR reported on the last Business Day of the month that immediately precedes the month in which the interest will accrue, plus (b) one tenth of one percent (0.10%), plus (c) six and four tenths of one percent (6.40%). Notwithstanding the foregoing, (i) in no event shall the Basic Rate for any Term Loan be less than eight and seven one hundredths of one percent (8.07%), and (ii) upon the occurrence of a Benchmark Transition Event, Collateral Agent may, in good faith and with reference to the margin above such interest rate in this definition, amend this Agreement to replace the Benchmark with a replacement interest rate and replacement margin above such interest rate that results in an interest rate floor of eight and seven one hundredths of one percent (8.07%) and a total rate equal to the total rate in effect immediately prior to the effectiveness of such replacement interest rate and replacement margin, and any such amendment shall become effective at 5:00 p.m. Eastern time on the third Business Day after Collateral Agent has notified Borrower of such amendment. Any determination, decision or election that may be made by Collateral Agent pursuant hereto will be conclusive and binding absent manifest error and may be made in Collateral Agent's sole discretion and without consent from any other party.

3.2 Section 13.1 of the Loan Agreement is hereby amended by adding the following definitions in alphabetical order therein:

"1-Month CME Term SOFR" is the 1-month CME Term SOFR reference rate as published by the CME Term SOFR Administrator on the CME Term SOFR Administrator's Website.

"**Benchmark**" is, initially, the 1-Month CME Term SOFR; provided, that if a Benchmark Transition Event has occurred with respect to the I-Month CME Term SOFR or the then-current Benchmark, then "Benchmark" means the applicable replacement rate that has replaced the immediately preceding benchmark rate pursuant to the defined term "Basic Rate".

"Benchmark Transition Event" means the occurrence of one or more of the following events with respect to the then-current Benchmark:

(a) a public statement or publication of information by or on behalf of the administrator for such Benchmark announcing that such Person has ceased or will cease to provide such Benchmark, permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide such Benchmark;

(b) a public statement or publication of information by the regulatory supervisor for the administrator for such Benchmark, the U.S. Federal Reserve System, an insolvency official with jurisdiction over the administrator for such Benchmark, a resolution authority with jurisdiction over the administrator for such Benchmark or a court or an entity with similar insolvency or resolution authority

over the administrator for such Benchmark, which states that the administrator for such Benchmark has ceased or will cease to provide such Benchmark permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide such Benchmark; or

(c) a public statement or publication of information by the regulatory supervisor for the administrator for such Benchmark announcing that such Benchmark is no longer representative or in compliance with the International Organization of Securities Commissions Principles for Financial Benchmarks.

"CME Term SOFR Administrator" is CME Group Benchmark Administration Limited, as administrator of the forward-looking term SOFR, or any successor administrator.

"CME Term SOFR Administrator's Website" is the website of the CME Group Benchmark Administrator at http://www.cmegroup.com, or any successor source.

"Fifth Amendment Date" means June 21, 2023.

Section 4.Limitation of Consent and Amendment.

4.1 The consent set forth in **Section 2** and the amendments set forth in **Section 3** above are effective for the purposes set forth herein and shall be limited precisely as written and, except as provided herein, shall not be deemed to (a) be a consent to any amendment, waiver or modification of any other term or condition of any Loan Document, or (b) otherwise prejudice any right, remedy or obligation which Collateral Agent or any Lender or Borrower may now have or may have in the future under or in connection with any Loan Document, as amended hereby.

4.2 This Amendment shall be construed in connection with and as part of the Loan Documents and all terms, conditions, representations, warranties, covenants and agreements set forth in the Loan Documents, except as herein amended, are hereby ratified and confirmed and shall remain in full force and effect.

Section 5.Representations and Warranties. To induce Collateral Agent and the Lenders to enter into this Amendment, Borrower hereby represents and warrants to Collateral Agent and Lenders as follows:

5.1 Immediately after giving effect to this Amendment (a) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct as of such date), and (b) no Event of Default has occurred and is continuing;

5.2 Borrower has the power and due authority to execute and deliver this Amendment and to perform its obligations under the Loan Agreement, as amended by this Amendment;

5.3 The Restated Certificate of Incorporation of the Borrower of the Borrower filed as Exhibit 3.1 to the Borrower's Form 10-Q for the quarterly period ended September 30, 2018, filed with the SEC on November 14, 2018 and the Amended and Restated Bylaws of the Borrower filed as Exhibit 3.1 to the Borrower's Form 8-K filed with the SEC on February 24, 2023 are true, accurate and complete and have not been further amended, supplemented or restated and are and continue to be in full force and effect;

5.4 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, have been duly authorized;

5.5 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not and will not contravene (a) any law or regulation binding on or affecting Borrower, (b) any contractual restriction with a Person binding on Borrower, (c) any order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Borrower, or (d) the organizational documents of Borrower;

5.6 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not require any order, consent, approval, license, authorization or validation of, or filing, recording or registration with, or exemption by any governmental or public body or authority, or subdivision thereof, binding on Borrower, except as already has been obtained or made; and

5.7 This Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights.

Section 6.Release by Borrower.

6.1FOR GOOD AND VALUABLE CONSIDERATION, Borrower hereby forever relieves, releases, and discharges Collateral Agent and the Lenders and their present or former employees, officers, directors, agents, representatives, attorneys, and each of them, from any and all claims, debts, liabilities, demands, obligations, promises, acts, agreements, costs and expenses, actions and causes of action, of every type, kind, nature, description or character whatsoever, whether known or unknown, suspected or unsuspected, absolute or contingent, arising out of or in any manner whatsoever connected with or related to facts, circumstances, issues, controversies or claims existing or arising from the beginning of time through and including the date of execution of this Amendment (collectively "Released Claims"). Without limiting the foregoing, the Released Claims shall include any and all liabilities or claims arising out of or in any manner whatsoever connected with or related to the Loan Documents, the Recitals hereto, any instruments, agreements or documents executed in connection with any of the foregoing or the origination, negotiation, administration, servicing and/or enforcement of any of the foregoing.

6.2 In furtherance of this release, Borrower expressly acknowledges and waives any and all rights under Section 1542 of the California Civil Code, which provides as follows:

> "**A general release** does not extend to claims that the creditor or releasing party does not know or suspect to exist in his or her favor at the time of executing the release and that, if known by him or her, would have materially affected his or her settlement with the debtor or released party." (Emphasis added.)

6.3 By entering into this release, Borrower recognizes that no facts or representations are ever absolutely certain and it may hereafter discover facts in addition to or different from those which it presently knows or believes to be true, but that it is the intention of Borrower hereby to fully, finally and forever settle and release all matters, disputes and differences, known or unknown, suspected or unsuspected; accordingly, if Borrower should subsequently discover that any fact that it relied upon in entering into this release was untrue, or that any understanding of the facts was incorrect, Borrower shall not be entitled to set aside this release by reason thereof, regardless of any claim of mistake of fact or law or any other circumstances whatsoever. Borrower acknowledges that it is not relying upon and has not relied upon any representation or statement made by Collateral Agent or any Lender with respect to the facts underlying this release or with regard to any of such party's rights or asserted rights.

6.4 This release may be pleaded as a full and complete defense and/or as a cross-complaint or counterclaim against any action, suit, or other proceeding that may be instituted, prosecuted or attempted in breach of this release. Borrower acknowledges that the release contained herein constitutes a material inducement to Collateral Agent and the Lenders to enter into this Amendment, and that Collateral Agent and the Lenders would not have done so but for Collateral Agent and the Lenders' expectation that such release is valid and enforceable in all events.

6.5 Borrower hereby represents and warrants to Collateral Agent and the Lenders, and Collateral Agent and the Lenders are relying thereon, as follows:

(a)Except as expressly stated in this Agreement, neither Collateral Agent, the Lenders nor any agent, employee or representative of Collateral Agent or any Lender has made any statement or representation to Borrower regarding any fact relied upon by Borrower in entering into this Amendment.

(b)Borrower has made such investigation of the facts pertaining to this Amendment and all of the matters appertaining thereto, as it deems necessary.

(c)The terms of this Amendment are contractual and not a mere recital.

(d)This Amendment has been carefully read by Borrower, the contents hereof are known and understood by Borrower, and this Amendment is signed freely, and without duress, by Borrower.

(e)Borrower represents and warrants that it is the sole and lawful owner of all right, title and interest in and to every claim and every other matter which it releases herein, and that it has not heretofore assigned or transferred, or purported to assign or transfer, to any person, firm or entity any claims or other matters herein released. Borrower shall indemnify Collateral Agent and the Lenders, defend and hold them harmless from and against all claims based upon or arising in connection with prior assignments or purported assignments or transfers of any claims or matters released herein.

Section 7.Counterparts. This Amendment may be executed in any number of counterparts and all of such counterparts taken together shall be deemed to constitute one and the same instrument.

Section 8.Integration. Except as expressly set forth herein, the Loan Agreement shall continue in full force and effect without alteration or amendment. This Amendment and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements.

Section 9.Governing Law. This Amendment and the rights and obligations of the parties hereto shall be governed by and construed in accordance with the laws of the State of California.

Section 10.Effectiveness. This Amendment shall be deemed effective upon:

10.1the due execution and delivery to Collateral Agent and the Lenders of this Amendment by each party hereto; and

10.2 Borrower's payment of all Lenders' Expenses with respect to this Amendment incurred through the date hereof, which may be debited (or ACH'd) from any of Borrower's accounts with the Lenders.

[*Balance of Page Intentionally Left Blank*]

In Witness Whereof, the parties hereto have caused this Consent and Fifth Amendment to Loan and Security Agreement to be duly executed and delivered as of the date first set forth above.

BORROWER:

SUTRO BIOPHARMA, INC.

By: /s/ William J. Newell
Name: William J. Newell
Title: Chief Executive Officer

COLLATERAL AGENT AND LENDER:

OXFORD FINANCE LLC

By: /s/ Colette H. Featherly
Name: Colette H. Featherly
Title: Senior Vice President

LENDERS:

FIRST-CITIZENS BANK & TRUST COMPANY (successor by purchase to the Federal Deposit Insurance Corporation as Receiver for Silicon Valley Bridge Bank, N.A. (as successor to Silicon Valley Bank))

By: /s/ Peter Sletteland
Name: Peter Sletteland
Title: Director

OXFORD FINANCE FUNDING IX, LLC

By: /s/ Colette H. Featherly
Name: Colette H. Featherly
Title: Secretary

OXFORD FINANCE FUNDING 2019-1, LLC

By: /s/ Colette H. Featherly
Name: Colette H. Featherly
Title: Secretary

OXFORD FINANCE FUNDING XIII, LLC

By: /s/ Colette H. Featherly
Name: Colette H. Featherly
Title: Secretary

EXHIBIT A

Purchase Agreement

[Attached]

Exhibit 31.1

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, William J. Newell certify that:

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

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

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

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

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

b.designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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

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

5.The registrant's other certifying officer 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: August 10, 2023

/s/ William J. Newell
William J. Newell
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Edward C. Albini, certify that:

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

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

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

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

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

b.designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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

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

5.The registrant's other certifying officer 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: August 10, 2023

/s/ Edward C. Albini
Edward C. Albini
Chief Financial Officer
(Principal Accounting Officer and Principal 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

I, William J. Newell, Chief Executive Officer of Sutro Biopharma, Inc. (the "Company"), do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1.the Quarterly Report on Form 10-Q of the Company for the fiscal quarter ended June 30, 2023 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

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

Dated: August 10, 2023

/s/ William J. Newell
William J. Newell
Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

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

I, Edward C. Albini, Chief Financial Officer of Sutro Biopharma, Inc. (the "Company"), do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1.the Quarterly Report on Form 10-Q of the Company for the fiscal quarter ended June 30, 2023 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

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

Dated: August 10, 2023

/s/ Edward C. Albini
Edward C. Albini
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)