

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

FORM 10-Q

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

For the quarterly period ended September 30, 2024

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 001-40215

Instil Bio, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

**3963 Maple Avenue, Suite 350
Dallas, Texas**

(Address of Principal Executive Offices)

83-2072195

(I.R.S. Employer Identification No.)

75219

(Zip Code)

(972) 499-3350

Registrant's telephone number, including area code

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(s)	Name of each exchange on which registered
Common Stock, \$0.000001 par value per share	TIL	The Nasdaq Stock Market LLC

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 and posted on its corporate web site, if any, 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 files). Yes No

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

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 7(a)(2)(B) of the Securities Act.

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date:

Class of Common Stock
6,525,887 shares of Common Stock, \$0.000001 par value per share

Outstanding at
November 11, 2024

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Part I. Financial Information
Item 1. Financial Statements (Unaudited)

INSTIL BIO, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share amounts)
(Unaudited)

	September 30, 2024	December 31, 2023
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 6,663	\$ 9,195
Restricted cash	—	1,501
Marketable securities	113,690	141,161
Prepaid expenses and other current assets	11,583	8,902
Assets held for sale	637	—
Total current assets	132,573	160,759
Property, plant and equipment, net	130,147	138,684
Operating lease right-of-use assets	1,104	2,387
Long-term investments	2,557	23,161
Other long-term assets	6,181	639
Total assets	\$ 272,562	\$ 325,630
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 1,195	\$ 1,212
Accrued expenses and other current liabilities	9,085	9,347
Total current liabilities	10,280	10,559
Contingent consideration, net of current portion	2,358	4,858
Operating lease liabilities, non-current	1,411	2,877
Loan payable	82,173	81,427
Other long-term liabilities	8	80
Total liabilities	96,230	99,801
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Preferred stock, par value \$0.000001 per share; 10,000,000 shares authorized; zero shares issued and outstanding as of September 30, 2024, and December 31, 2023	—	—
Common stock, par value \$0.000001 per share; 300,000,000 shares authorized; 6,525,266 and 6,503,913 shares issued and outstanding as of September 30, 2024, and December 31, 2023	—	—
Additional paid-in capital	820,073	807,158
Accumulated other comprehensive loss	(520)	(348)
Accumulated deficit	(643,221)	(580,981)
Total stockholders' equity	176,332	225,829
Total liabilities and stockholders' equity	\$ 272,562	\$ 325,630

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

INSTIL BIO, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(in thousands, except share and per share amounts)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Operating expenses:				
In-process research and development	\$ 10,000	\$ —	\$ 10,000	\$ —
Research and development	562	8,492	10,739	37,621
General and administrative	10,707	11,941	33,837	36,681
Restructuring and impairment charges	2,362	46,283	7,146	71,847
Total operating expenses	23,631	66,716	61,722	146,149
Loss from operations	(23,631)	(66,716)	(61,722)	(146,149)
Interest income	1,654	2,313	5,635	6,671
Interest expense	(2,007)	(2,003)	(5,988)	(3,229)
Other rental income	1,493	—	1,493	—
Other expense, net	(530)	(1,026)	(1,658)	(455)
Net loss	(23,021)	(67,432)	(62,240)	(143,162)
Other comprehensive loss:				
Foreign currency translation	(291)	231	(252)	(210)
Unrealized gain on available-for-sale securities, net	398	39	80	178
Net comprehensive loss	\$ (22,914)	\$ (67,162)	\$ (62,412)	\$ (143,194)
Net loss per share, basic and diluted	\$ (3.54)	\$ (10.37)	\$ (9.57)	\$ (22.01)
Weighted-average shares used in computing net loss per share, basic and diluted	6,506,681	6,503,913	6,504,842	6,503,913

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

INSTIL BIO, INC.

CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands, except share amounts)
(Unaudited)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive (Loss) Income	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance - December 31, 2023	6,503,913	\$ —	\$ 807,158	\$ (348)	\$ (580,981)	\$ 225,829
Stock-based compensation	—	—	4,515	—	—	4,515
Net loss	—	—	—	—	(24,302)	(24,302)
Other comprehensive loss	—	—	—	(215)	—	(215)
Balance - March 31, 2024	6,503,913	—	811,673	(563)	(605,283)	205,827
Stock-based compensation	—	—	4,173	—	—	4,173
Net loss	—	—	—	—	(14,917)	(14,917)
Other comprehensive loss	—	—	—	(64)	—	(64)
Balance - June 30, 2024	6,503,913	—	815,846	(627)	(620,200)	195,019
Shares of common stock issued in connection with incentive stock plan	21,353	—	159	—	—	159
Stock-based compensation	—	—	4,068	—	—	4,068
Net loss	—	—	—	—	(23,021)	(23,021)
Other comprehensive income	—	—	—	107	—	107
Balance - September 30, 2024	<u>6,525,266</u>	<u>\$ —</u>	<u>\$ 820,073</u>	<u>\$ (520)</u>	<u>\$ (643,221)</u>	<u>\$ 176,332</u>

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

INSTIL BIO, INC.

CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (CONTINUED)

(in thousands, except share amounts)
(Unaudited)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive (Loss) Income	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance - December 31, 2022	6,503,913	\$ —	\$ 788,992	\$ (493)	\$ (424,894)	\$ 363,605
Stock-based compensation	—	—	4,530	—	—	4,530
Net loss	—	—	—	—	(57,068)	(57,068)
Other comprehensive income	—	—	—	87	—	87
Balance - March 31, 2023	6,503,913	—	793,522	(406)	(481,962)	311,154
Stock-based compensation	—	—	4,413	—	—	4,413
Net loss	—	—	—	—	(18,662)	(18,662)
Other comprehensive loss	—	—	—	(389)	—	(389)
Balance - June 30, 2023	6,503,913	—	797,935	(795)	(500,624)	296,516
Stock-based compensation	—	—	4,670	—	—	4,670
Net loss	—	—	—	—	(67,432)	(67,432)
Other comprehensive income	—	—	—	270	—	270
Balance - September 30, 2023	6,503,913	\$ —	\$ 802,605	\$ (525)	\$ (568,056)	\$ 234,024

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

INSTIL BIO, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2024	2023
Cash flows from operating activities:		
Net loss	\$ (62,240)	\$ (143,162)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation	12,756	13,613
Non-cash lease expense	174	610
Foreign exchange remeasurement gain	(278)	(147)
Impairment of fixed assets	4,285	60,088
Impairment of right-of-use assets	827	7,724
Change in fair value of contingent consideration	(2,500)	(41)
Depreciation	2,869	3,720
In-process research and development expenses	10,000	—
Accretion on invested securities	(3,861)	(4,716)
Non-cash interest expense	754	762
Change in fair value of derivative financial instrument	265	528
Loss on disposals of property and equipment	343	338
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(4,033)	(1,082)
Other long-term assets	(3,115)	275
Accounts payable	(34)	(652)
Operating lease liabilities	(995)	(1,198)
Long term liabilities	—	(12)
Accrued expenses and other current liabilities	(354)	(5,296)
Net cash used in operating activities	(45,137)	(68,648)
Cash flows from investing activities:		
Purchase of marketable securities	(106,684)	(250,517)
Maturities of marketable securities	158,700	298,300
Purchases of property, plant and equipment	—	(20,605)
Cash received from held for sale assets	546	—
Acquired in-process research and development	(10,000)	—
Purchase of derivative financial instrument	(1,588)	—
Net cash provided by investing activities	40,974	27,178
Cash flows from financing activities:		
Principal payments on loan	—	(587)
Proceeds from exercise of stock options	159	—
Proceeds from note payable	—	8,669
Net cash provided by financing activities	159	8,082
Net decrease in cash, cash equivalents and restricted cash	(4,004)	(33,388)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(29)	(182)
Cash, cash equivalents and restricted cash—beginning of period	10,696	43,716
Cash, cash equivalents and restricted cash—end of period	\$ 6,663	\$ 10,146
Supplemental disclosure of cash flow information:		
Cash paid for interest, net of amounts capitalized	\$ 5,241	\$ 4,908
Supplemental disclosure of noncash information:		
Purchases of property, plant and equipment in accounts payable and accrued expenses and other current liabilities	\$ —	\$ 67

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

INSTIL BIO, INC.

Notes to Condensed Consolidated Financial Statements (Unaudited)

1. Organization and Description of Business

Instil Bio, Inc. (the “Company”) is headquartered in Dallas, Texas and was incorporated in the state of Delaware in August 2018. The Company is a clinical-stage biopharmaceutical company focused on developing a pipeline of novel therapies. In particular, the Company seeks to in-license or acquire and develop novel therapeutic candidates in diseases with significant unmet medical need.

In August 2024, the Company’s wholly owned subsidiary, SynBioTx, Inc. (“SynBioTx”), in-licensed certain bispecific antibodies, including SYN-2510/IMM2510, a bispecific antibody targeting both programmed death-ligand 1 (PD-L1) and vascular endothelial growth factor (VEGF), as well as SYN-27M/IMM27M, a monoclonal antibody targeting cytotoxic T-lymphocyte associated antigen 4 (CTLA-4), from ImmuneOnco Biopharmaceuticals (Shanghai) Inc. (“ImmuneOnco”). Pursuant to the license and collaboration agreement with ImmuneOnco (the “IO Collaboration Agreement”), SynBioTx has an exclusive license to research, develop, manufacture and commercialize these product candidates outside of China, including mainland China, Hong Kong, Macau and Taiwan (“Greater China”). ImmuneOnco retains development and commercialization rights in Greater China.

The Company also has a proprietary (FR α) co-stimulatory antigen receptor (“CoStAR”) tumor infiltrating lymphocyte (“TIL”) cell therapy technology for the treatment of cancer, which the Company is seeking to advance via collaboration. In December 2023, the Company entered into an agreement with a third-party collaborator to develop an autologous FR α CoStAR TIL (the “CoStAR-TIL Collaboration Product”) for a potential investigator-initiated trial (“IIT”) in non-small cell lung cancer in China. The collaborator has an option to exclusively license the CoStAR-TIL Collaboration Product in China and Taiwan.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and include the accounts of the Company and its wholly owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

The unaudited condensed consolidated financial statements have been prepared on the same basis as the audited annual consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary for the fair statement of the Company’s financial position as of September 30, 2024, the condensed consolidated statements of operations and comprehensive loss for the three and nine months ended September 30, 2024 and 2023, the condensed consolidated statements of stockholders’ equity for the three and nine months ended September 30, 2024 and 2023, and the results of its cash flows for the nine months ended September 30, 2024 and 2023. The financial data and other information disclosed in these notes related to the three and nine months ended September 30, 2024 and 2023 are also unaudited. The results for the three and nine months ended September 30, 2024 are not necessarily indicative of results to be expected for the year ending December 31, 2024, any other periods, or any future year period. The Company has evaluated subsequent events through the date the condensed consolidated financial statements were issued.

The accompanying unaudited condensed consolidated financial statements should be read in conjunction with the audited financial statements and the related notes thereto included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2023, as filed with the Securities and Exchange Commission (“SEC”) on March 21, 2024.

Reverse Stock Split

Effective December 7, 2023, the Company effected a 1-for-20 reverse stock split of its outstanding shares of common stock. Where applicable, all share and per share amounts in this Quarterly Report have been adjusted to reflect the effect of the reverse stock split.

Segments

Operating segments are identified as components of an entity for which separate discrete financial information is available and that is regularly reviewed by the chief operating decision-maker in deciding how to allocate resources to an individual segment and in assessing performance. The Company has determined it operates in a single operating segment and has one operating segment.

Cash, Cash Equivalents, Restricted Cash, Marketable Securities, and Long-Term Investments

The Company considers all highly liquid investments purchased with original maturities of three months or less from the purchase date to be cash equivalents. Cash equivalents include amounts invested in money market accounts.

Restricted cash consists of a cash reserve which serves as collateral for the Company's construction loan and is classified within current assets on the condensed consolidated balance sheet as of September 30, 2024. There was no restricted cash as of September 30, 2024 and \$1.5 million of restricted cash as of December 31, 2023 on the condensed consolidated balance sheet.

The Company's investments in marketable securities and long-term investments have been classified and accounted for as available-for-sale. The Company classifies its maturities as either short-term or long-term based on each instrument's underlying contractual maturity date, which are carried at their fair values based on the quoted market prices of the securities. Unrealized gains and losses are reported as accumulated other comprehensive income (loss). Realized gains and losses on available-for-sale securities are included in net loss in the period earned or incurred. As of September 30, 2024 and December 31, 2023, marketable securities consisted of U.S. Treasury bills.

The Company periodically reviews whether its securities may be other-than-temporarily impaired, including whether or not (i) the Company has the intent to sell the security or (ii) it is more likely than not that the Company will be required to sell the security before its anticipated recovery. If one of these factors is met, the Company will record an impairment loss associated with its impaired investment. The impairment loss will be recorded as a write-down of investments in the condensed consolidated balance sheets and a realized loss within other expense in the condensed consolidated statements of operations and comprehensive loss.

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the condensed consolidated balance sheets that sum to the amounts shown in the condensed consolidated statements of cash flows (in thousands):

	September 30, 2024	December 31, 2023
Cash and cash equivalents	\$ 6,663	\$ 9,195
Restricted cash	—	1,501
Cash, cash equivalents and restricted cash	<u>\$ 6,663</u>	<u>\$ 10,696</u>

Assets Held for Sale

The Company classifies long-lived assets or disposal groups to be sold as held for sale in the period in which all of the following criteria are met: management, having the authority to approve the action, commits to a plan to sell the asset or disposal group; the asset or disposal group is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such assets or disposal group; the sale of the asset or disposal group is probable, and transfer of the asset or disposal group is expected to qualify for recognition as a completed sale within one year, except if events or circumstances beyond the Company's control extend the period

of time required to sell the asset or disposal group beyond one year; the asset or disposal group is being actively marketed for sale at a price that is reasonable in relation to its current fair value; and actions required to complete the plan to sell have been initiated.

The Company initially measures a long-lived asset or disposal group that is held for sale at the lower of its carrying value or fair value less any costs to sell. Fair value is estimated by the Company through evaluations of quoted market prices received for other comparable held for sale assets sold by the Company. Any loss resulting from this measurement is recognized in the period in which the held for sale criteria are met. Conversely, gains are not recognized on the sale of a long-lived asset or disposal group until the date of sale. The Company assesses the fair value of a long-lived asset or disposal group less any costs to sell each reporting period it remains classified as held for sale and reports any subsequent changes as an adjustment to the carrying value of the asset or disposal group, as long as the new carrying value does not exceed the carrying value of the asset at the time it was initially classified as held for sale. Upon determining that a long-lived asset or disposal group meets the criteria to be classified as held for sale, the Company ceases depreciation and reports long-lived assets in the line item "assets held for sale" in its condensed consolidated balance sheet. To date, the Company has recorded impairment losses on assets held for sale associated with the Plan as defined below in Note 11. During the three and nine months ended September 30, 2024, the Company recognized non-cash impairment charges for assets held for sale of \$1.5 million and \$4.3 million, respectively, while during the three and nine months ended September 30, 2023 charges were \$4.6 million and \$16.2 million, respectively. The non-cash impairment charge was recorded in the condensed consolidated statements of operations and comprehensive loss in the line item "restructuring and impairment charges."

Business Combinations

The Company evaluates acquisitions of assets and related liabilities and other similar transactions to assess whether or not the transaction should be accounted for as a business combination or asset acquisition by first applying a screen to determine if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets. If the screen is met, the transaction is accounted for as an asset acquisition. If the screen is not met, further determination is required as to whether or not the Company has acquired inputs and processes that have the ability to create outputs which would meet the requirements of a business.

The Company accounts for its business combinations using the acquisition method of accounting which requires recognition and measurement of all identifiable assets acquired and liabilities assumed at their full fair value as of the date it obtains control. The Company has determined the fair value of assets acquired and liabilities assumed based upon management's estimates of the fair values of assets acquired and liabilities assumed in the acquisitions. Goodwill represents the excess of the purchase price over the fair value of the net tangible and identifiable intangible assets acquired. The Company accounts for contingent consideration at the acquisition-date fair value as part of the consideration transferred in the transaction.

While management has used its best estimates and assumptions to measure the fair value of the identifiable assets acquired and liabilities assumed at the acquisition date, these estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, not to exceed one year from the date of acquisition, any changes in the estimated fair values of the net assets recorded for the acquisitions will result in an adjustment to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, the Company records any subsequent adjustments to the consolidated statements of operations and comprehensive loss. Acquisition-related costs, such as legal and consulting fees, are expensed as incurred.

The Company accounts for an asset acquisition by recognizing net assets based on the cost to the acquiring entity on a relative fair value basis, which includes transaction costs in addition to consideration given. Goodwill is not recognized in an asset acquisition; any excess consideration transferred over the fair value of the net assets acquired is allocated to the non-monetary identifiable assets and liabilities assumed based on relative fair values. Acquired in-process research and development is expensed as incurred provided there is no alternative future use.

Impairment of Long-Lived Assets

The Company reviews its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable or that the useful life is shorter than originally estimated. Recoverability of assets is measured by comparing the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset over its remaining useful life. If such assets are impaired, the impairment recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. If the useful life is shorter than originally estimated, the Company depreciates or amortizes the remaining carrying value over the revised shorter useful life. Assets to be disposed of by sale are reflected at the lower of their carrying amount or fair value less costs to sell. To date, the Company has recorded impairment losses on long-lived assets associated with a sustained decrease in the Company's stock price and in connection with the Plan as defined below in Note 11. The Company recognized a non-cash impairment charge of \$0.1 million and \$0.3 million during the three and nine months ended September 30, 2024, respectively, and nil and \$2.6 million for the three and nine months ended September 30, 2023, respectively, related to leasehold improvements. Additionally, the Company recognized impairment charges of \$41.5 million for the three and nine months ended September 30, 2023 relating to real estate. These impairment charges were recorded in the condensed consolidated statements of operations and comprehensive loss in the line item "restructuring and impairment charges." See Notes 7 and 11 for more information.

Research and Development

Research and development costs are expensed as incurred. Clinical trial and other development costs incurred by third parties are expensed as the contracted work is performed. The Company accrues for costs incurred as the services are being provided by monitoring the status of the trial or project and the invoices received from its external service providers. The Company adjusts its accrual as actual costs become known. Where contingent milestone payments are due to third parties under research and development arrangements or license agreements, the milestone payment obligations are expensed when the milestone results are achieved.

Recent Accounting Pronouncements Not Yet Adopted

In November 2023, the FASB issued ASU No. 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures which requires public entities to disclose information about their reportable segments' significant expenses on an interim and annual basis. ASU 2023-07 is effective for annual periods beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. The Company is currently evaluating the impact of this ASU 2023-07 on its consolidated financial statements and related disclosures.

In December 2023, the FASB issued ASU 2023-09 "Income Taxes (Topics 740): Improvements to Income Tax Disclosures" to expand the disclosure requirements for income taxes, specifically related to the rate reconciliation and income taxes paid. ASU 2023-09 is effective for annual periods beginning after December 15, 2024, with early adoption permitted. The Company is currently evaluating the impact of this ASU 2023-09 on its consolidated financial statements and related disclosures.

In November 2024, the FASB issued ASU no. 2024-03, Income Statement-Reporting Comprehensive Income-Expense Disaggregation Disclosures (Subtopic 220-40). The amendments in this update require disclosure, in the notes to the financial statements, of specific expense categories present within expense captions presented on the face of the income statement within continuing operations of public business entities. The amendments in this update are effective for annual periods beginning after December 15, 2026 and interim periods beginning after December 15, 2027.

A variety of proposed or otherwise potential accounting standards are currently being studied by standard-setting organizations and certain regulatory agencies. Because of the tentative and preliminary nature of such

proposed standards, the Company has not yet determined the effect, if any, that the implementation of such proposed standards would have on its condensed consolidated financial statements.

3. Balance Sheet Components

Prepaid and other current assets

Prepaid and other current assets consist of the following (in thousands):

	September 30, 2024	December 31, 2023
Prepaid general and administration	\$ 1,397	\$ 1,033
Prepaid research and development	4,870	300
Other receivable	2,915	3,643
Prepaid contract research organization expenses	443	1,322
Other current assets	1,958	2,604
Total prepaid and other current assets	<u>\$ 11,583</u>	<u>\$ 8,902</u>

Property, Plant and Equipment, Net

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

	September 30, 2024	December 31, 2023
Land	\$ 31,243	\$ 31,243
Laboratory equipment	—	8,291
Buildings	102,433	102,433
Office and computer equipment	509	831
Leasehold improvements	—	1,424
Manufacturing equipment	—	2,017
Total property, plant and equipment, gross	134,185	146,239
Less: accumulated depreciation	(4,038)	(7,555)
Total property, plant and equipment, net	<u>\$ 130,147</u>	<u>\$ 138,684</u>

Depreciation expense was \$0.9 million and \$1.0 million for the three months ended September 30, 2024 and 2023, respectively, and was \$2.9 million and \$3.7 million for the nine months ended September 30, 2024 and 2023, respectively, in the condensed consolidated statements of operations and comprehensive loss.

The Company capitalized interest of nil during the three months ended September 30, 2024 and 2023, while during the nine months ended September 30, 2024 and 2023, the Company capitalized nil and \$2.4 million, respectively, of interest related to qualifying expenditures for construction work-in-progress for its Tarzana manufacturing facility.

Accrued Expenses and Other Current Liabilities

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

	September 30, 2024	December 31, 2023
Accrued compensation and benefits	\$ 2,401	\$ 1,026
Accrued operational expenses	957	1,412
Accrued restructuring costs	3,453	3,136
Accrued research, development and clinical trial expenses	406	1,833
Operating lease liabilities, current	1,761	1,750
Other current liabilities	107	190
Total accrued expenses and other current liabilities	\$ 9,085	\$ 9,347

4. Fair Value Measurement

The fair value of cash and cash equivalents approximates carrying value since cash and cash equivalents consist of short-term highly liquid investments with maturities of less than three months at the time of purchase. Cash and cash equivalents are quoted market prices in active markets for identical assets and are therefore classified as Level 1 assets. Money market funds are open-end mutual funds that invest in cash, government securities, and/or repurchase agreements that are collateralized fully. To the extent that these funds are valued based upon the reported net asset value, they are categorized in Level 1 of the fair value hierarchy.

Short-term and long-term marketable securities comprised U.S. Treasury bills that are classified within Level 2 of the fair value hierarchy are valued based on other observable inputs, including broker or dealer quotations, alternative pricing sources or U.S. Government Treasury yield of appropriate term.

The following tables provide information by level for assets and liabilities that are measured at fair value on a recurring and nonrecurring basis:

September 30, 2024				
	Level 1	Level 2	Level 3	Total
(In thousands)				
Financial Assets				
Money market funds	\$ 3,275	\$ —	\$ —	\$ 3,275
U.S. Treasury bills	—	116,247	—	116,247
Derivative financial instrument	—	790	—	790
Total	<u>\$ 3,275</u>	<u>\$ 117,037</u>	<u>\$ —</u>	<u>\$ 120,312</u>
Financial Liabilities				
Contingent consideration	\$ —	\$ —	\$ 2,358	\$ 2,358

December 31, 2023				
	Level 1	Level 2	Level 3	Total
(In thousands)				
Financial Assets				
Money market funds	\$ 5,684	\$ —	\$ —	\$ 5,684
U.S. Treasury bills	—	164,322	—	164,322
Derivative financial instrument	—	1,055	—	1,055
Total	<u>\$ 5,684</u>	<u>\$ 165,377</u>	<u>\$ —</u>	<u>\$ 171,061</u>
Financial Liabilities				
Contingent consideration	\$ —	\$ —	\$ 4,858	\$ 4,858

There were no transfers in or out of Level 1, 2 and 3 measurements for the nine months ended September 30, 2024 and the year ended December 31, 2023. As of September 30, 2024 and December 31, 2023, there were no securities within Level 3 of the fair value hierarchy. The derivative financial instrument above relates to the interest rate swap discussed in Note 7, and is included in prepaid expenses and current assets in the condensed consolidated balance sheets.

As of September 30, 2024, the fair value of the Company's Loan (as defined in Note 7) was \$77.7 million. The fair value was determined on the basis of its net present value and is considered Level 2 in the fair value hierarchy.

5. Financial Instruments

Marketable securities and long-term investments classified as available-for-sale on September 30, 2024 and December 31, 2023 consisted of the following (in thousands):

September 30, 2024					
	Maturity	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
U.S. Treasury bills	Less than one year	\$ 113,496	\$ 194	\$ —	\$ 113,690
U.S. Treasury bills	Between one and two years	2,559	—	(2)	2,557
Total		<u>\$ 116,055</u>	<u>\$ 194</u>	<u>\$ (2)</u>	<u>\$ 116,247</u>

December 31, 2023

	Maturity	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
U.S. Treasury bills	Less than one year	\$ 141,075	\$ 86	\$ —	\$ 141,161
U.S. Treasury bills	Between one and two years	23,134	27	—	23,161
Total		\$ 164,209	\$ 113	\$ —	\$ 164,322

As of September 30, 2024 and December 31, 2023, marketable securities that had contractual maturities less than one year are classified as current because management considers these marketable securities to be available for current operations. As of September 30, 2024 and December 31, 2023, marketable securities that had contractual maturities between one and two years are classified as long-term because management considers these marketable securities to be available for operations beyond one year. The Company does not intend to sell its marketable securities and it is not likely that the Company will be required to sell these securities before recovery of their amortized cost basis. There were \$113.7 million of marketable securities and \$2.6 million of long-term investments maturing in less than two years classified as available-for-sale as of September 30, 2024. There were \$141.2 million of marketable securities and \$23.2 million of long-term investments maturing in less than two years classified as available-for-sale as of December 31, 2023.

6. License and Collaboration Agreement with ImmuneOnco

On August 1, 2024, SynBioTx and ImmuneOnco entered into the IO Collaboration Agreement pursuant to which SynBioTx in-licensed certain bispecific antibodies, including SYN-2510/IMM2510 and SYN-27M/IMM27M from ImmuneOnco. Pursuant to the IO Collaboration Agreement, SynBioTx paid ImmuneOnco a \$10.0 million upfront payment and prepaid ImmuneOnco \$5.0 million in development costs in the quarter ended September 30, 2024. ImmuneOnco is eligible to receive additional potential near-term payments of up to \$35.0 million, up to \$2.1 billion in commercial, development and regulatory milestones (including up to \$270.0 million in longer term development and regulatory milestones and up to \$1.8 billion in commercial milestones) plus single-digit to low double-digit percentage royalties on global net sales of the licensed products outside of Greater China.

The expenses recognized in connection with the IO Collaboration Agreement were \$10.0 million and nil for the three and nine months ended September 30, 2024 and 2023, respectively, recorded as a component of In-process research and development on the condensed consolidated statement of operations and comprehensive loss. As of September 30, 2024, no additional milestones had been accrued as the underlying contingencies had not yet been resolved.

7. Commitments and Contingencies

Leases

Company as a Lessee: Operating Lease Obligations

The Company currently leases office spaces and laboratory spaces located in Greater Los Angeles, California, Dallas, Texas, and the United Kingdom. The Company's leased facilities have original lease terms ranging from 2 to 5 years that predominately require the Company to provide a security deposit, while certain leases provide the right for the Company to renew the lease upon the expiration of the initial lease term, and various leases have scheduled rent increases on an annual basis. The exercise of lease renewal options for the Company's existing leases is at the Company's sole discretion, and not included in the measurement of right of use asset or lease liability as they are not reasonably certain to be exercised. Certain leases have leasehold improvements and are being amortized over the shorter of the estimated useful life of the improvements or the remaining life of the lease. Such improvements incurred by the Company will revert to the landlord at the expiration of the lease and will be removed from Company's condensed consolidated balance sheets.

The Company's lease costs consist of the following (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2024	2023	2024	2023
Operating lease cost	\$ 172	\$ 351	\$ 1,097	\$ 1,867
Variable lease cost	283	234	649	906
Total lease cost	\$ 455	\$ 585	\$ 1,746	\$ 2,773

The following table summarizes cash flow information related to the Company's lease obligations (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2024	2023	2024	2023
Cash paid for operating lease liabilities	\$ 494	\$ 491	\$ 1,756	\$ 1,806

The following table summarizes the Company's lease assets and liabilities (in thousands):

	September 30, 2024	December 31, 2023
Operating lease right-of-use assets	\$ 1,104	\$ 2,387
Current operating lease liabilities	\$ 1,761	\$ 1,750
Non-current operating lease liabilities	\$ 1,411	\$ 2,877

The following table summarizes other supplemental information related to the Company's lease obligations:

	September 30, 2024	December 31, 2023
Weighted-average remaining lease term (in years)	1.93	2.60
Weighted-average discount rate	6.75 %	6.75 %

Future minimum lease payments under operating lease liabilities were (in thousands):

	September 30, 2024
2024 (remaining three months)	\$ 735
2025	1,591
2026	1,195
Total future lease payments	3,521
Less: imputed interest	349
Total lease liability balance	3,172
Less: current portion of operating lease liabilities	1,761
Total operating lease liabilities, non-current	\$ 1,411

During the nine months ended September 30, 2024 and 2023, the Company evaluated its remaining right-of-use assets for impairment, as the Plan (as defined below in Note 11) has resulted in a cessation of use for several locations. The Company determined these assets were impaired, and has recognized an impairment loss of \$0.6 million and \$0.1 million for the three months ended September 30, 2024 and 2023, respectively, and \$0.8 million and \$7.2 million for the nine months ended September 30, 2024 and 2023 respectively, which are recorded in the line item "restructuring and impairment charges" in the condensed consolidated statements of operations and comprehensive loss.

Company as Lessor: Tarzana Facility Lease with AstraZeneca

On July 10, 2024, Complex Therapeutics LLC entered into a lease (the "Lease") with AstraZeneca Pharmaceuticals LP ("Tenant") pursuant to which Tenant is leasing the Property located in Tarzana, CA. The Lease

has an initial term of approximately 15 years, beginning on July 10, 2024 (the “Commencement Date”) and ending on July 31, 2039, with Tenant having two consecutive options to extend the term for a five-year period each and a one-time option to terminate the Lease on the tenth anniversary of the Commencement Date, which, if exercised, obligates Tenant to pay Complex Therapeutics LLC a termination fee. The initial base rent is \$0.6 million per month (\$7.5 million annually) and the base rent will escalate by 3% per annum. Tenant is also required to pay certain operating expenses and tax expenses as additional rent. There is rent abatement during the first year of the Lease such that Tenant will pay no rent or reduced rent during this period. Tenant also has a right of first offer to purchase the premises that are subject to the Lease.

The Lease is classified as an operating lease and revenue will be recognized on a straight-line basis and will be recorded within the condensed consolidated statements of operations and comprehensive loss in the line item “Other rental income” as this is not a part of the Company’s core operations rental income has been presented in other income rather than as revenue on the statement of operations and comprehensive loss. Lease income related to the operating lease was as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Rental income related to fixed lease income	\$ 1,493	\$ —	\$ 1,493	\$ —

Approximate future fixed contractual lease payments to be received under a non-cancelable operating lease in effect as of September 30, 2024, are as follows (in thousands):

	September 30, 2024
2024 (remaining three months)	\$ 1,493
2025	8,957
2026	8,957
2027	8,957
2028	8,957
Thereafter	94,795
Total	\$ 132,116

Legal Proceedings

From time to time, the Company may have certain contingent liabilities that arise in the ordinary course of its business activities. The Company accrues a liability for such matters when it is probable that future expenditures will be made and that such expenditures can be reasonably estimated. Significant judgment is required to determine both probability and the estimated amount. The Company does not expect that the resolution of these matters will have a material adverse effect on its financial position, results of operations or cash flows.

Debt

In June 2022, the Company’s wholly owned subsidiary, Complex Therapeutics Mezzanine LLC, and the Company’s wholly owned indirect subsidiary, Complex Therapeutics LLC, entered into a mortgage construction loan and mezzanine construction loan (together, the “Loan”) secured by its Tarzana, California land and building (the “Property”). The initial principal amount of the Loan was \$52.1 million, with additional future principal of up to \$32.9 million to fund ongoing Property construction costs. Construction has been completed and on July 10, 2024, Complex Therapeutics LLC entered into the Lease. If the Company does not refinance or sell the Property prior to July 2025, when the Loan will be payable, the Company intends to use its option to extend the Loan until July 2026; the Company also has an another option to extend the Loan until July 2027. As of September 30, 2024, the outstanding principal amount under the Loan was \$82.8 million and unamortized debt issuance costs were \$0.7 million. During the year ended December 31, 2023, \$0.6 million in additional principal was paid in accordance

with the Loan. The Loan is guaranteed by the Company and secured by the Property, and bears interest at the one-month Secured Overnight Financing Rate, plus 5.25% per annum. The Company discontinued capitalizing interest in June 2023 as the building was substantially complete at such time. The Loan contains customary negative and affirmative covenants that include limitations on the ability of the Company to enter into significant contracts and incur additional debt. The Company is also required to maintain consolidated net worth and liquid assets of at least \$85.0 million as of September 30, 2024 and December 31, 2023 as defined in the loan agreement. As of September 30, 2024, the Company was in compliance with the covenants of the Loan. The Company is also required to maintain certain insurance coverage on the Property. In connection with the Loan, the Company entered into an interest rate swap to effectively limit its maximum interest rate, as discussed in Note 4.

The net carrying amount of the liability component of the Loan was as follows (in thousands):

	September 30, 2024		December 31, 2023	
Principal amount	\$	82,837	\$	82,837
Unamortized debt issuance cost		(664)		(1,410)
Net carrying amount	\$	82,173	\$	81,427

The following table sets forth the interest expense recognized related to the Loan (in thousands):

	Three Months Ended				Nine Months Ended			
	September 30,				September 30,			
	2024		2023		2024		2023	
Contractual interest expense	\$	1,758	\$	1,754	\$	5,241	\$	2,482
Amortization of debt issuance cost		249		249		747		747
Total interest expense related to the Loan	\$	2,007	\$	2,003	\$	5,988	\$	3,229

Other Commitments

In the normal course of business, the Company enters into contracts and various purchase agreements commitments with third-party vendors for clinical research services, products and other services from third parties for operating purposes. These agreements generally provide for termination or cancellation, other than for costs already incurred. As of September 30, 2024 and December 31, 2023, the Company had no outstanding liabilities, respectively, in commitments for employee benefits as part of the Plan. As of September 30, 2024 and December 31, 2023, the Company had \$2.0 million and \$3.1 million, respectively, in commitments for contract terminations as part of the Plan (see Note 11).

The Company has entered into an agreement with a third-party collaborator to develop the CoStAR-TIL Collaboration Product with the aim of enrolling patients in IITs in China. Milestone payments of \$2.6 million were made during the nine months ended September 30, 2024 and were recorded within research and development expense in the condensed consolidated statements of operations and comprehensive loss, and upon successful completion of future milestones, the Company may be required to pay up to \$3.4 million for clinical development.

8. Equity

Common Stock

Each share of common stock has the right to one vote. The holders of common stock are also entitled to receive dividends whenever funds are legally available and if declared by the Company's Board of Directors (the "Board of Directors"), subject to the prior rights of holders of all classes of stock outstanding having priority rights as to dividends. No cash dividends have been declared by the Board of Directors from inception.

As of September 30, 2024 and December 31, 2023, the Company had 6,525,266 and 6,503,913 shares of common stock outstanding, respectively.

Preferred Stock Activity

The Company's current amended and restated certificate of incorporation authorizes the Company to issue up to 10,000,000 shares of preferred stock at \$0.000001 par value per share. The Board of Directors is authorized to provide for the issuance of the preferred stock in one or more series, and to fix the number of shares and to determine or alter for each such series, such voting powers, full or limited, or no voting powers, and such designation, preferences, and relative, participating, optional, or other rights and such qualifications, limitations, or restrictions thereof, as shall be stated and expressed in subsequent resolution or resolutions adopted by the board providing for the issuance of such shares. As of September 30, 2024 and December 31, 2023, there were no shares of preferred stock issued or outstanding.

9. Stock-Based Compensation

2021 Equity Incentive Plan

In March 2021, the Company adopted the 2021 Equity Incentive Plan (the "2021 Plan"), which became effective in connection with the Company's initial public offering ("IPO"). The 2021 Plan was approved by the Board of Directors and stockholders in March 2021. The 2021 Plan is an equity incentive plan pursuant to which the Company may grant the following awards: (i) incentive stock options; (ii) nonstatutory stock options; (iii) stock appreciation rights; (iv) restricted stock awards; (v) restricted stock unit awards; (vi) performance awards; and (vii) other forms of stock awards to employees, directors, and consultants, including employees and consultants of the Company's affiliates. The 2021 Plan is a successor to the Company's 2018 Stock Incentive Plan (the "2018 Plan"). Following the effectiveness of the 2021 Plan, no further grants may be made under the 2018 Plan; however, any outstanding equity awards granted under the 2018 Plan will continue to be governed by the terms of the 2018 Plan.

As of September 30, 2024, 185,883 shares of common stock remained available for issuance under the 2021 Plan. As of September 30, 2024, the total number of shares authorized for issuance under the 2021 Plan was 642,722 shares.

The following table sets forth stock-based compensation included in the Company's statement of operations and comprehensive loss (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2024	2023	2024	2023
Research and development expense	\$ 506	\$ 567	\$ 1,587	\$ 999
General and administrative expense	3,562	4,103	11,169	12,614
Total stock-based compensation expense	\$ 4,068	\$ 4,670	\$ 12,756	\$ 13,613

As of September 30, 2024, there was \$21.3 million of total unrecognized compensation cost related to unvested stock options granted under the 2018 Plan and 2021 Plan, which is expected to be recognized over a weighted average period of 2.2 years.

Employee Stock Purchase Plan

In March 2021, the Company adopted the Employee Stock Purchase Plan (the "ESPP"), which became effective in connection with the IPO. The ESPP was adopted by the Board of Directors and stockholders in March 2021, but the Company has not yet commenced offerings to employees under the ESPP. The ESPP initially provides participating employees with the opportunity to purchase up to an aggregate of 61,850 shares of common stock. The number of shares reserved under the ESPP automatically increases on January 1 of each year through and until January 1, 2031, in an amount equal to the lesser of (i) 1% of the total number of shares of common stock outstanding on December 31 of the preceding calendar year, and (ii) 123,700 shares; provided, however, that before the date of any such increase, the Board of Directors may determine that such increase will be less than the amount set forth in clauses (i) and (ii).

10. Net Loss Per Share

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

	September 30,	
	2024	2023
Stock options to purchase common stock	1,251,394	868,753

11. Corporate Restructuring Plan

In December 2022, the Board of Directors approved a strategic reprioritization of the Company's preclinical and clinical development programs (referred to as the "2022 Plan"). In January 2023, the Board approved an additional restructuring plan (referred to as the "2023 Plan") and the Company announced the consolidation of the ITIL-306 Phase 1 clinical trial and related manufacturing of CoStAR-TIL to its operations in Manchester, UK and stopped recruiting for the ITIL-306 clinical trial.

In January 2024, the Board of Directors approved a comprehensive restructuring plan, which included the closure of the Company's UK manufacturing facility and clinical trial operations, as well as the cessation of the ITIL-306 clinical trial. In September 2024, the Board of Directors approved additional UK restructuring actions, which has resulted in the elimination of the majority of the remaining UK workforce, with the remaining reduction and restructuring activities anticipated to be largely completed by the end of 2024. Collectively, these actions are referred to as the "2024 Plan."

The 2022 Plan, 2023 Plan and 2024 Plan are collectively referred to as the "Plan".

Restructuring and Impairment Charges

As a result of the Plan, the Company recorded charges of \$2.4 million and \$7.1 million within the condensed consolidated statements of operations and comprehensive loss in the line item "restructuring and impairment charges" for the three and nine months ended September 30, 2024, respectively, and \$46.3 million and \$71.8 million for the three and nine months ended September 30, 2023, respectively.

The Company estimates that it will incur additional charges of up to \$0.5 million by the end of 2024, including employee termination costs, severance and other benefits, and contract termination costs. The charges that the Company expects to incur in connection with the 2024 Plan are subject to a number of assumptions, and actual results may differ materially.

These charges relate to asset impairments, contract terminations, severance payments and other employee-related costs incurred. The following table summarizes the restructuring and impairment charges by category (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2024	2023	2024	2023
Asset impairment for leasehold improvements	\$ 51	\$ —	\$ 343	\$ 2,644
One-time employee termination benefits	1,449	41	2,427	1,816
Building and construction work in progress impairment	—	41,542	—	41,542
Contract terminations	(1,282)	—	(736)	1,888
Right-of-use asset impairment	640	128	827	7,724
Impairment of long-lived assets held for sale	1,504	4,572	4,285	16,233
Total restructuring and impairment charges	\$ 2,362	\$ 46,283	\$ 7,146	\$ 71,847

Restructuring Liability

As a result of the Plan, the restructuring liability was recorded in the condensed consolidated balance sheets under “Accrued expenses and other current liabilities” and was measured at the amount expected to be paid, or that was paid. During the three and nine months ended September 30, 2024, the Company paid nil and \$1.4 million of restructuring costs, respectively, and expects to pay the remainder of the restructuring costs by the end of 2024. The following table shows the liability related to the Plan (in thousands):

	Employee Benefits	Contract Terminations	Total
Restructuring liability as of December 31, 2023	\$ —	\$ 3,136	\$ 3,136
Additions, net	2,395	720	3,115
Payments	(978)	(471)	(1,449)
Adjustments	—	(1,349)	(1,349)
Total restructuring liability as of September 30, 2024	\$ 1,417	\$ 2,036	\$ 3,453

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited condensed consolidated financial statements and related notes included in this Quarterly Report on Form 10-Q and the audited financial statements and notes thereto as of and for the year ended December 31, 2023 and the related Management's Discussion and Analysis of Financial Condition and Results of Operations, both of which are contained in our Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on March 21, 2024. Unless the context requires otherwise, references in this Quarterly Report on Form 10-Q to "we," "us" and "our" refer to Instil Bio, Inc. and our consolidated subsidiaries.

Forward-Looking Statements

The information in this discussion contains forward-looking statements and information within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, which are subject to the "safe harbor" created by those sections. These forward-looking statements include, but are not limited to, statements concerning our strategy, future operations, our expectations regarding our collaborations and clinical trials, future financial position, future revenues, projected costs, prospects, and plans and objectives of management. The words "anticipates," "believes," "estimates," "expects," "intends," "may," "plans," "projects," "will," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We may not actually achieve the plans, intentions, or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements that we make. These forward-looking statements involve risks and uncertainties that could cause our actual results to differ materially from those in the forward-looking statements, including, without limitation, the risks set forth in Part II, Item 1A, "Risk Factors" in this Quarterly Report on Form 10-Q and in our other filings with the SEC. The forward-looking statements are applicable only as of the date on which they are made, and we do not assume any obligation to update any forward-looking statements.

Overview

We are a clinical-stage biopharmaceutical company focused on developing a pipeline of novel therapies. In particular, we seek to in-license or acquire and develop additional novel therapeutic candidates in diseases with significant unmet medical need.

In August 2024, our wholly owned subsidiary, SynBioTx, Inc. or SynBioTx, in-licensed certain bispecific antibodies, including SYN-2510/IMM2510, a bispecific antibody targeting both programmed death-ligand 1, or PD-L1, and vascular endothelial growth factor, or VEGF, and SYN-27M/IMM27M, a monoclonal antibody targeting cytotoxic T-lymphocyte associated antigen 4, or CTLA-4, from ImmuneOnco Biopharmaceuticals (Shanghai) Inc., or ImmuneOnco. SYN-2510, the lead in-licensed product candidate, is a novel and differentiated PD-L1xVEGF bispecific antibody in development for the treatment of multiple solid tumor cancers. Pursuant to the license and collaboration agreement with ImmuneOnco, or the IO Collaboration Agreement, SynBioTx has an exclusive license to research, develop, manufacture and commercialize these product candidates outside of China, including mainland China, Hong Kong, Macau and Taiwan, or Greater China. ImmuneOnco retains development and commercialization rights in Greater China.

SYN-2510, our lead product candidate, is a potentially best-in-class PD-L1xVEGF bispecific antibody in development for the treatment of multiple solid tumor cancers. ImmuneOnco is conducting a Phase I open label trial in China of SYN-2510/IMM2510 as monotherapy in patients with advanced solid tumors that have failed prior therapies, including triple-negative breast cancer, or TNBC, squamous non-small cell lung cancer, or NSCLC, hepatocellular carcinoma, renal cell carcinoma, and rare solid tumors including soft tissue sarcomas and thymic cancer. Approximately 65 additional patients have been dosed with SYN-2510/IMM2510 monotherapy in addition to the initial 33 patients reported in ImmuneOnco's ASCO 2024 publication. The preliminary data showed:

- As of December 21, 2023, 33 patients had received IMM2510 at 9 dose levels (0.007-20.0 mg/kg), the median age was 57 years (range 36-74), the median prior line of therapy was 3 (range 1-13), and 27.3% patients received prior anti PD-1/PD-L1 inhibitor therapies.
- Treatment-related adverse events (TRAEs) occurred in 32 patients (97.0%). Most TRAEs were grade 1 or 2. The most common TRAEs ($\geq 20\%$) of all grades were infusion related reaction (IRR) (72.7%), platelet count decreased (39.4%), anemia (33.3%) and diarrhea (21.2%). Grade ≥ 3 TRAEs occurred in 11 patients (33.3%). Grade ≥ 3 TRAEs ($\geq 5\%$) were IRR (9.1%), platelet count decreased (6.1%), lymphocyte count decreased (6.1%) and diarrhea (6.1%). TRAEs leading to treatment discontinuation occurred in 3 patients (9.1%) which were IRR, hypersensitivity and pyrexia, respectively. No dose limiting toxicities (DLT) occurred.
- In 25 response evaluable patients, 3 patients had confirmed partial response (PR): 1 patient with sq-NSCLC (onco-driver gene negative, previous IO treatment failure) at 3 mg/kg with tumor shrinkage 46% and still on the treatment with treatment duration over 20 months; 1 patient with sq-NSCLC at 10 mg/kg with tumor shrinkage about 32% along with treatment duration 9.4 months; 1 patient with thymus adenocarcinoma (PD-L1 CPS 80) at 20 mg/kg with tumor shrinkage over 53% and still remains on the treatment along with treatment duration 8.1 months. In addition, 7 patients with best objective response stable disease (BOR SD) and 4 of them had over 15% decreased tumor burden (1 cervical cancer at 3 mg/kg, 2 non-sq NSCLC at 10 and 20 mg/kg respectively, 1 ovarian cancer at 20 mg/kg).
- The half-life of IMM2510 in 20.0mg/kg dose group was around 6.8 days. The recommended phase 2 dose (RP2D) was determined by ImmuneOnco to be 20.0 mg/kg.

SYN-27M is an antibody-dependent cellular cytotoxicity-enhanced monoclonal antibody targeting CTLA-4, which has been designed to promote intratumoral regulatory T cell depletion to enhance the efficacy and reduce the toxicity associated with first-generation anti-CTLA-4 antibodies. By end of 2023, ImmuneOnco completed a first-in-human dose escalation study of SYN-27M/IMM27M in patients with solid tumor cancers in China with 25 subjects dosed. ImmuneOnco is currently pursuing cohort expansions of the RP2D in this Phase I trial in patients with hormone receptor-positive breast cancer and hepatocellular carcinoma who have failed prior therapy.

ImmuneOnco is also conducting a Phase I open label clinical trial in China of SYN-2510/IMM2510 combined with SYN-27M/IMM27M in patients with advanced solid tumors that have failed prior therapies.

We also have a proprietary folate receptor alpha (FR α) co-stimulatory antigen receptor, or CoStAR, tumor infiltrating lymphocyte, or TIL, cell therapy for the treatment of cancer, which we are seeking to advance via collaboration. In December 2023, we entered into an agreement with a third-party collaborator to develop an autologous folate receptor alpha (FR α) CoStAR-TIL, or the CoStAR-TIL Collaboration Product, for a potential investigator-initiated trial, or IIT, in non-small cell lung cancer, or NSCLC, in China. The collaborator has an option to exclusively license the CoStAR-TIL Collaboration Product in China and Taiwan.

Since inception, we have had significant operating losses. Our net loss was \$23.0 million for the three months ended September 30, 2024 and \$62.2 million for the nine months ended September 30, 2024. As of September 30, 2024, we had an accumulated deficit of \$643.2 million. As of September 30, 2024, we had cash, cash equivalents, marketable securities and long-term investments of \$122.9 million, which consists of \$6.7 million in cash and cash equivalents, \$113.7 million in marketable securities and \$2.6 million in long-term investments. We expect to continue to incur net losses for the foreseeable future.

Recent Developments

In July 2024, Complex Therapeutics LLC entered into a lease, or the Lease with AstraZeneca Pharmaceuticals LP pursuant to which AstraZeneca Pharmaceuticals LP is leasing Complex Therapeutic LLC's manufacturing facility located in Tarzana, CA. The Lease has an initial term of approximately 15 years and the initial base rent is \$0.6 million per month (\$7.5 million annually), the base rent will escalate by 3% per annum and AstraZeneca

Pharmaceuticals LP is required to pay certain operating expenses and tax expenses as additional rent. There is rent abatement during the first year of the Lease such that AstraZeneca Pharmaceuticals LP will initially pay no rent or reduced rent.

Components of Operating Results

Operating Expenses

In-Process Research and Development

In-process research and development (IPR&D), expenses include IPR&D acquired as part of in-license payments made to ImmuneOnco for which there is no alternative future use, and are expensed as incurred.

Research and Development

Research and development expenses consist primarily of research and development, manufacturing, monitoring and other services payments and, to a lesser extent, salaries, benefits and other personnel-related costs, including stock-based compensation, professional service fees, and facility and other related costs. In addition, research and development expense is presented net of reimbursements from reimbursable tax and expenditure credits and grants from the UK government. For the three and nine months ended September 30, 2024 and 2023, we did not allocate our research and development expenses by program.

We expect our future research and development expenses to change in line with our clinical development activities for SYN-2510 and SYN-27M, our CoSTAR-TIL Collaboration Product or other next-generation TIL technologies and other potential business development activities. Our expenditures on future nonclinical and clinical development programs are subject to numerous uncertainties in timing and cost to completion. The duration, costs and timing of clinical trials and development of product candidates will depend on a variety of factors, including:

- the scope, rate of progress and expenses of clinical trials and other research and development activities;
- potential safety monitoring and other studies requested by regulatory agencies;
- significant and changing government regulation; and
- the timing and receipt of regulatory approvals, if any.

The process of conducting the necessary clinical research to obtain regulatory approval from the FDA, Medicines and Healthcare Products Regulatory Agency, or MHRA, European Medicines Agency, or EMA, and comparable foreign authorities is costly and time consuming and the successful development of product candidates is highly uncertain. The risks and uncertainties associated with our research and development projects are discussed more fully in the section of this Quarterly Report titled "Risk Factors." As a result of these risks and uncertainties, we are unable to determine with any degree of certainty the duration and completion costs of our research and development projects, or if, when or to what extent we will generate revenues from the commercialization and sale of any of our product candidates that obtain regulatory approval. We may never succeed in achieving regulatory approval for any of our product candidates.

General and Administrative

General and administrative expenses consist primarily of compensation and personnel-related expenses, including stock-based compensation, for our personnel in executive, finance and other administrative functions. General and administrative expenses also include professional fees paid for accounting, auditing, legal, tax and consulting services, insurance costs, recruiting costs, travel expenses, facility and other related costs, depreciation, and other general and administrative costs.

Additionally, we expect to continue to incur expenses as a result of operating as a public company, including expenses related to compliance with the rules and regulations of the SEC, director and officer insurance expenses, and any investor relations related expenses, as well as other administrative and professional services.

Restructuring and Impairment Charges

Restructuring and impairment charges consist primarily of:

- for the nine months ended September 30, 2023, asset impairment charges related to our facility in Tarzana;
- for the nine months ended September 30, 2024, asset impairment charges related to our former manufacturing facility in Manchester;
- contract terminations, including contract terminations related to the Tarzana, Thousand Oaks and Manchester facilities; and
- severance and other employee termination related costs.

As part of a restructuring plan adopted in January 2023, we transitioned clinical manufacturing and trial operations of ITIL-306 to the United Kingdom, and as a result, in 2023 we reduced our U.S. workforce by approximately 96% and our UK workforce by approximately 42%. Subsequently, in January 2024, we decided to close our UK manufacturing and clinical operations, and in September 2024 we decided to close most of our remaining Manchester, UK operations, which resulted in the elimination of the majority of the UK workforce, with the remaining reduction anticipated to be largely completed by the end of 2024, which collectively we refer to as the 2024 Plan. As a result of the 2024 Plan, we incurred charges of \$7.1 million during the nine months ended September 30, 2024 and we estimate we will incur additional charges of up to \$0.5 million in 2024 related to the 2024 Plan.

Interest Income

Interest income consists of interest income from funds held in our cash and cash equivalent accounts, marketable securities and long-term investments.

Interest Expense

Interest expense consists of interest expense on our Loan and amortization of loan origination costs.

Other Rental Income

Other rental income consists primarily of straight-lined rental income related to the Tarzana manufacturing facility.

Other Expense, Net

Other expense, net consists primarily of interest cap derivative instrument fair value gain or loss, foreign exchange remeasurement gain or loss and other expenses and income.

Income Tax Provision

We are subject to income taxes in the United States and the foreign jurisdiction where we operate, the United Kingdom. The United Kingdom has statutory tax rates that differ from those in the United States. Accordingly, our effective tax rates will vary depending on the relative proportion of United Kingdom to United States income, the availability of research and development tax credits, changes in the valuation of our deferred tax assets and liabilities and changes in tax laws.

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Due to the uncertainty of the business in which we operate, projections of future profitability are difficult and past profitability is not necessarily indicative of future profitability. We maintain full valuation allowance against net deferred tax assets for the United States and the United Kingdom. The valuation allowance has been provided based on the positive and negative evidence relative to our company, including the existence of cumulative net operating losses, or NOLs, since our inception, and the inability to carryback these NOLs to prior periods. Furthermore, we have determined that it is more likely than not that the benefit of these assets would not be realized in the foreseeable future. The timing and the reversal of our valuation allowance will continue to be monitored.

Results of Operations

Comparison of the Three Months Ended September 30, 2024 and 2023

The following table summarizes our results of operations for the three months ended September 30, 2024 and 2023 (in thousands):

	Three Months Ended September 30,		Change
	2024	2023	\$
Operating expenses:			
In-process research and development	\$ 10,000	\$ —	\$ 10,000
Research and development	562	8,492	(7,930)
General and administrative	10,707	11,941	(1,234)
Restructuring and impairment charges	2,362	46,283	(43,921)
Total operating expenses	23,631	66,716	(53,085)
Loss from operations	(23,631)	(66,716)	53,085
Interest income	1,654	2,313	(659)
Interest expense	(2,007)	(2,003)	(4)
Other rental income	1,493	—	1,493
Other expense, net	(530)	(1,026)	496
Net loss	\$ (23,021)	\$ (67,432)	\$ 52,918

In-process Research and Development Expenses

In-process research and development expenses were \$10.0 million and nil for three months ended September 30, 2024 and 2023, respectively. The net increase of \$10.0 million was primarily due to:

- \$10.0 million increase in research and development costs related to payments made to ImmuneOnco.

Research and Development Expenses

Research and development expenses were \$0.6 million and \$8.5 million for the three months ended September 30, 2024 and 2023, respectively. The net decrease of \$7.9 million was primarily due to:

- \$3.9 million decrease in costs mainly related to our discontinuation of our ITIL-168 clinical manufacturing activities;
- \$2.1 million decrease in costs from reduced headcount, consisting primarily of a decrease of \$2.0 million in wages and benefits and a \$0.1 million decrease in stock-based compensation expense; and
- \$1.9 million decrease in expenses related to facilities and overhead, depreciation, and other expenses due to reductions made in these areas.

General and Administrative Expenses

General and administrative expenses were \$10.7 million and \$11.9 million for the three months ended September 30, 2024 and 2023, respectively. The net decrease of \$1.2 million was primarily due to:

- \$0.9 million decrease in costs from reduced headcount, consisting of decreases in wages and benefits of \$0.4 million and stock-based compensation expense of \$0.5 million;
- \$0.1 million decrease in consulting and professional services costs, mainly consisting of a decrease in costs of legal consultants and executive service fees; and
- \$0.2 million decrease in facility and other office expenses.

Restructuring and Impairment Charges

Restructuring and impairment charges were approximately \$2.4 million and \$46.3 million for the three months ended September 30, 2024 and 2023, respectively. The net decrease of \$43.9 million was primarily due to:

- \$3.1 million decrease in costs from impairments of assets held for sale;
- \$41.5 million decrease in costs related to the impairment of the Tarzana manufacturing facility; and
- \$1.3 million decrease in costs resulting from termination of contracts; offset by
- \$0.5 million increase in costs from impairments of right-of-use assets;
- \$0.1 million increase in leasehold improvement impairments; and
- \$1.4 million increase in severance payments and benefits continuation costs.

We expect to incur additional restructuring and impairment charges in 2024 as result of reducing our UK workforce and other actions related to our 2024 Plan.

Interest Income, Interest Expense, Other Rental Income and Other Expense, Net

Interest income, interest expense, other rental income and other expense, net was \$0.6 million of income and \$0.7 million of expense for the three months ended September 30, 2024 and 2023, respectively. The increase in income of \$1.3 million was primarily due to:

- \$0.5 million increase in other losses, including loss from our derivative financial instrument;
- \$0.7 million decrease of interest income related to our investments; offset by
- \$1.0 million increase in gain on foreign currency transactions; and
- \$1.5 million increase in rental income related to the Tarzana manufacturing facility.

Comparison of the Nine Months Ended September 30, 2024 and 2023

The following table summarizes our results of operations for the nine months ended September 30, 2024 and 2023 (in thousands):

	Nine Months Ended September 30,		Change \$
	2024	2023	
Operating expenses:			
In-process research and development	\$ 10,000	\$ —	\$ 10,000
Research and development	10,739	37,621	(26,882)
General and administrative	33,837	36,681	(2,844)
Restructuring and impairment charges	7,146	71,847	(64,701)
Total operating expenses	61,722	146,149	(94,427)
Loss from operations	(61,722)	(146,149)	94,427
Interest income	5,635	6,671	(1,036)
Interest expense	(5,988)	(3,229)	(2,759)
Other rental income	1,493	—	1,493
Other expense, net	(1,658)	(455)	(1,203)
Net loss	\$ (62,240)	\$ (143,162)	\$ 89,429

In-process Research and Development Expenses

In-process research and development expenses were \$10.0 million and nil for three months ended September 30, 2024 and 2023, respectively. The net increase of \$10.0 million was primarily due to:

- \$10.0 million increase in research and development costs related to payments made to ImmuneOnco.

Research and Development Expenses

Research and development expenses were \$10.7 million and \$37.6 million for the nine months ended September 30, 2024 and 2023, respectively. The decrease in research and development expenses of \$26.9 million was primarily due to:

- \$11.9 million decrease in costs from reduced headcount, consisting primarily of a decrease of \$11.9 million in wages and benefits, \$0.2 million decrease in other employee-related expenses in relation to our research and development personnel and \$0.4 million decrease in professional services; offset by an increase of \$0.6 million in stock-based compensation expense;
- \$8.1 million decrease in expenses related to facilities and overhead, depreciation, and other expenses due to reductions made in these areas; and
- \$6.9 million decrease in costs mainly related to the discontinuation of our ITIL-168 clinical manufacturing activities.

General and Administrative Expenses

General and administrative expenses were \$33.8 million and \$36.7 million for the nine months ended September 30, 2024 and 2023, respectively. The net decrease of \$2.8 million was primarily due to:

- \$3.9 million decrease in costs, mainly due to a decrease in wages of \$2.8 million and a decrease in stock-based compensation expense of \$1.4 million; offset by an increase in other employee-related expenses of \$0.3 million;
- \$0.1 million decrease in consulting and professional services costs, mainly consisting of a decrease in costs of legal and finance consultants; offset by,

- \$1.2 million increase in depreciation and facility costs, offset by a decrease in insurance expenses.

Restructuring and Impairment Charges

Restructuring and impairment charges were \$7.1 million and \$71.8 million for the nine months ended September 30, 2024 and 2023, respectively. The net decrease of \$64.7 million was primarily due to:

- \$11.9 million decrease in costs from impairments of assets held for sale;
- \$7.0 million decrease in costs from impairments of right-of-use assets;
- \$2.3 million decrease in costs from leasehold improvement impairments;
- \$41.5 million decrease in costs related to the impairment of Tarzana manufacturing facility; and
- \$2.6 million decrease in costs resulting from termination of contracts; offset by,
- \$0.6 million increase in severance payments and benefits continuation costs.

We expect to incur additional restructuring and impairment charges in 2024 as result of reducing our UK workforce and other actions related to our 2024 Plan.

Interest Income, Interest Expense, Other Rental Income and Other Expense, Net

Interest income, interest expense, other rental income and other expense, net were \$0.5 million of expense and \$3.0 million of income for the nine months ended September 30, 2024 and 2023, respectively. The increase in expense of \$3.5 million was primarily due to:

- \$1.0 million decrease of interest income related to our investments;
- \$2.8 million increase of interest expense from our Loan; and
- \$1.3 million increase of other losses, including loss from our derivative financial instrument; offset by,
- \$0.1 million increase in gain on foreign currency transactions; and
- \$1.5 million increase in rental income related to the Tarzana manufacturing facility.

Liquidity and Capital Resources

Sources of Liquidity

Since our inception, we have not generated any revenue from product sales and we have incurred significant operating losses. We do not have any products that have achieved regulatory marketing approval and we do not expect to generate revenue from sales of any product candidates for at least several years, if ever.

As of September 30, 2024, we had cash, cash equivalents, marketable securities and long-term investments of \$122.9 million, which consisted of \$6.7 million in cash and cash equivalents, \$113.7 million in marketable securities and \$2.6 million in long-term investments. Cash in excess of immediate requirements is invested in accordance with our investment policy, primarily with a view to liquidity and capital preservation.

Prior to our initial public offering, or IPO, we funded our operations primarily through the issuance and sale of convertible preferred stock. From our inception through March 2021, we raised net cash proceeds of \$380.1 million from the issuance and sale of our convertible preferred stock.

In the first quarter of 2021, we raised net proceeds of \$339.0 million in our IPO, pursuant to which we sold an aggregate of 920,000 shares of common stock.

In June 2022, our wholly owned subsidiary, Complex Therapeutics Mezzanine LLC, and our wholly owned indirect subsidiary, Complex Therapeutics LLC, entered into a mortgage construction loan and mezzanine construction loan, or together, the Loan, secured by our Tarzana, California land and building. Construction of the Tarzana facility has been completed and the facility has been leased to AstraZeneca Pharmaceuticals LP. The initial principal amount of the Loan was \$52.1 million, with additional future principal of up to \$32.9 million to fund then

ongoing construction costs. As of September 30, 2024, the outstanding principal amount under the Loan was \$82.8 million and unamortized debt issuance costs were \$0.7 million. We have agreed with the lender to terminate commitments in respect of any unadvanced amounts and, accordingly, do not have additional borrowing capacity under the Loan.

Future Funding Requirements

Based on our current operating plan, we believe our existing cash, cash equivalents, restricted cash and marketable securities will be sufficient to fund our operating expenses and capital expenditure requirements beyond 2026. We are evaluating opportunities for a potential sale of our Tarzana manufacturing site, as well as subleases of other facilities under lease. If we are successful in selling the Tarzana facility, such a transaction could extend our expected cash runway. We have based this estimate on assumptions that may prove to be wrong, we may not be successful in securing a sale of the Tarzana facility or sublease of the other facilities on favorable terms, or at all and we could utilize our available capital resources sooner than we expect. AstraZeneca Pharmaceuticals LP has leased the Tarzana manufacturing facility and has a right of first offer to purchase the property.

We use our cash to fund operations, primarily to fund our business development, research and development expenditures and related personnel costs. We expect our expenses to continue to be significant as we invest in research and development activities, particularly as we in-license or acquire product candidates, advance product candidates into later stages of development and conduct clinical trials, seek regulatory approvals for and commercialize any product candidates that successfully complete clinical trials, hire personnel and invest in and grow our business, expand and protect our intellectual property portfolio, and operate as a public company. Because of the numerous risks and uncertainties associated with acquiring product candidates, and the research, development and commercialization of product candidates, we are unable to estimate the exact timing and amount of our funding requirements. Our future operating expenditures will depend on many factors, including:

- the results of our collaborations and the number and characteristics of any product candidates we develop or acquire;
- the scope, rate of progress, costs and results of future clinical and preclinical development activities;
- the costs, timing and outcome of regulatory review of any product candidates, and the number of trials required for regulatory approval;
- the cost of manufacturing any product candidates, as well as any products we successfully commercialize;
- the cost of commercialization activities of our product candidates, if approved for sale, including marketing, sales and distribution costs;
- the timing, receipt and amount of sales of any product candidates, if approved;
- costs related to our Tarzana facility and our ability to complete a sale of our Tarzana, California facility, as well as subleases of other facilities under lease;
- the extent to which we acquire or in-license other companies' product candidates and technologies;
- our ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of any such arrangements, including the timing and amount of any future milestone, royalty or other payments due under any such agreement;
- any product liability or other lawsuits or claims;
- the expenses needed to attract, hire and retain skilled personnel;
- our investments in our operational, financial and management information systems;
- the costs associated with operating as a public company;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing our intellectual property portfolio; and
- any delays or issues resulting from the impact of adverse geopolitical and economic conditions.

In February 2019, we entered into a license agreement with Immetacyte Ltd., or Immetacyte, pursuant to which we obtained a worldwide license to Immetacyte's proprietary technology, know-how and intellectual property for the research, development, manufacture and commercialization of TIL therapies. In March 2020, we acquired 100% of the share capital of Immetacyte for total cash and non-cash consideration, including contingent

consideration, of \$15.4 million. In connection with the acquisition, we terminated the Immetacyte license agreement and associated payment obligations. The maximum consideration that remained unpaid as of September 30, 2024, which payment is contingent on future events, was \$13.3 million.

As discussed above, in August 2024, we entered into the IO Collaboration Agreement with ImmuneOnco. Among other things, pursuant to that agreement, SynBioTx paid ImmuneOnco an up-front payment of \$10.0 million and prepaid ImmuneOnco \$5.0 million in development costs, and has agreed to pay up to \$35.0 million in potential near-term payments, as well as up to \$2.1 billion in commercial, development and regulatory milestones (including up to \$270.0 million in longer term development and regulatory milestones and up to \$1.8 billion in commercial milestones) plus single-digit to low double-digit percentage royalties on global net sales of the licensed products outside of Greater China.

We lease various operating spaces in the United States and the United Kingdom under non-cancelable operating lease arrangements that expire on various dates through 2026. These arrangements require us to pay certain operating expenses, such as taxes, repairs, and insurance and contain landlord or tenant incentives or allowances, renewal and escalation clauses. As of September 30, 2024, our future minimum lease payments under committed or non-cancelable lease agreements were \$3.5 million.

As discussed above, in connection with the 2024 Plan, we currently estimate that we will incur additional charges of up to \$0.5 million in 2024, including employee termination costs, severance and other benefits, and contract termination costs. The charges that we expect to incur in connection with the 2024 Plan are subject to a number of assumptions, and actual results may differ materially. We may also incur additional costs not currently contemplated due to events that may occur as a result of, or that are associated with, the 2024 Plan as well as additional costs in connection with any additional restructuring actions.

Until we can generate substantial revenue from the sales of our product candidates, if that occurs, we plan to fund our operations through equity offerings, debt financings, or other capital sources. This may include leasing income, strategic collaborations or other arrangements with third parties. Additional funds may not be available to us on acceptable terms or at all. If we raise additional funds by issuing equity or convertible debt securities, our stockholders will suffer dilution, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common shareholders. Debt financing, if available, may 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. If we raise funds through collaborations or other similar arrangements with third parties, we may have to relinquish valuable rights to technologies, future revenue streams, product candidates or research programs or grant licenses on terms that may not be favorable to us and/or may reduce the value of our common stock. Our ability to raise additional funds may be adversely impacted by worsening global economic conditions and the recent disruptions to, and volatility in, the credit and financial markets in the United States and worldwide resulting from, among other things, heightened inflation, higher interest rates, conflicts in Ukraine and the Middle East, and recent and potential future bank failures. If we fail to obtain necessary capital when needed on acceptable terms, or at all, it could force us to delay, limit, reduce or terminate our product development programs, commercialization efforts or other operations. See “Risk Factors.”

Cash Flows

The following table sets forth the significant sources and uses of cash for the periods set forth below (in thousands):

	Nine Months Ended September 30,	
	2024	2023
Net cash provided by (used in):		
Cash used in operating activities	\$ (45,137)	\$ (68,648)
Cash provided by investing activities	40,974	27,178
Cash provided by financing activities	159	8,082
Net decrease in cash, cash equivalents, and restricted cash	\$ (4,004)	\$ (33,388)

Cash Flows from Operating Activities

Cash used in operating activities for the nine months ended September 30, 2024 was \$45.1 million, which consisted of the net loss of \$62.2 million, a \$8.5 million net change to our net operating assets and liabilities, and \$25.6 million in non-cash charges and other adjustments to reconcile net loss to net cash used in operating activities. The net change in our operating assets and liabilities was primarily due to a decrease of \$0.4 million in accrued expenses, and other current liabilities, an increase of \$4.0 million in prepaid expenses and other current assets, an increase of \$3.1 million in other long-term assets, and a decrease of \$1.0 million in operating lease liabilities. The non-cash charges primarily consisted of stock-based compensation expense of \$12.8 million, in-process research and development expenses of \$10.0 million, impairment of fixed assets and right-of-use assets, and loss on disposal of property and equipment of \$5.5 million, change in fair value of interest cap derivative instrument and non-cash interest expense of \$1.0 million, and depreciation expense of \$2.9 million, offset by accretion on invested securities of \$3.9 million and the change in fair value of contingent consideration of \$2.5 million.

Cash used in operating activities for the nine months ended September 30, 2023 was \$68.6 million, which consisted of the net loss of \$143.2 million, and a \$8.0 million net change to our net operating assets and liabilities, partially offset by \$82.5 million in non-cash charges and other adjustments to reconcile net loss to net cash used in operating activities. The net change in our operating assets and liabilities was primarily due to a decrease of \$0.7 million in accounts payable, a decrease of \$5.3 million in accrued expenses, accrued restructuring expenses and other current liabilities, an increase of \$1.1 million in prepaid expenses and other current assets, a decrease of \$0.3 million in other long-term assets, and a decrease of \$1.2 million in operating lease liabilities. The non-cash charges primarily consisted of stock-based compensation expense of \$13.6 million, impairment of fixed assets of \$60.1 million, impairment of right-of-use assets of \$7.7 million and depreciation expense of \$3.7 million, offset by accretion on invested securities of \$4.7 million.

Cash Flows from Investing Activities

Cash provided by investing activities for the nine months ended September 30, 2024 was \$41.0 million, consisting primarily of \$52.0 million of cash provided by marketable securities investments and \$0.5 million of cash received from held for sale assets, offset by \$10.0 million of acquired in-process research and development and \$1.6 million from the renewal of our derivative financial instrument.

Cash provided by investing activities for the nine months ended September 30, 2023 was \$27.2 million, which consisted primarily of \$47.8 million of cash provided by marketable securities investments, offset by \$20.6 million used related to purchases of property, plant and equipment.

Cash Flows from Financing Activities

Cash provided by financing activities for the nine months ended September 30, 2024 was \$0.2 million, which was primarily related to proceeds from exercise of stock options.

Cash provided by financing activities for the nine months ended September 30, 2023 was \$8.1 million, which was primarily related to cash proceeds from our note payable of \$8.7 million, offset by loan payments of \$0.6 million.

Critical Accounting Policies and Estimates

This management's discussion and analysis of our financial condition and results of operations is based on our condensed consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of the condensed consolidated 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 condensed financial statements, as well as the reported 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.

For a description of critical accounting policies that require significant judgments and estimates during the preparation of our financial statements, refer to "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates" and Note 2 to our Consolidated Financial Statements contained in our Annual Report on Form 10-K for the year ended December 31, 2023 and Note 2 to the condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

Recent Accounting Pronouncements

Information regarding recent accounting pronouncements applicable to us is included in Note 2 to the condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

Emerging Growth Company Status and Smaller Reporting Company Status

We are an "emerging growth company" as defined in the JOBS Act. For so long as we remain an emerging growth company, we are permitted and intend to rely on certain exemptions from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments not previously approved. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock.

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

We will remain an emerging growth company until the earliest of (i) December 31, 2026, (ii) the last day of the fiscal year in which we have total annual gross revenue of at least \$1.235 billion, (iii) the last day of the fiscal year in which we are deemed to be a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded \$700.0 million as of the

last business day of the second fiscal quarter of such year or (iv) the date on which we have issued more than \$1.0 billion in non-convertible debt securities during the prior three-year period.

We are also a “smaller reporting company,” as defined in Rule 12b-2 under the Exchange Act. We may continue to be a smaller reporting company if either (i) the market value of our shares held by non-affiliates is less than \$250.0 million or (ii) our annual revenue was less than \$100.0 million during the most recently completed fiscal year and the market value of our shares held by non-affiliates is less than \$700.0 million. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are a smaller reporting company as defined by Item 10 of Regulation S-K and are not required to provide the information otherwise required under this item.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Quarterly Report. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of September 30, 2024, our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms, and to provide reasonable assurance that such information 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.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended September 30, 2024 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, do not expect that our disclosure controls or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions, over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Part II. Other Information

Item 1. Legal Proceedings

From time to time, we may become involved in legal proceedings arising in the ordinary course of our business. We are not currently subject to any material legal proceedings.

Item 1A. Risk Factors

RISK FACTORS

The following information sets forth risk factors that could cause our actual results to differ materially from those contained in forward-looking statements we have made in this Quarterly Report on Form 10-Q and those we may make from time to time. You should carefully consider the risks described below, in addition to the other information contained in this Quarterly Report on Form 10-Q and our other public filings. Our business, financial condition or results of operations could be harmed by any of these risks. The risks and uncertainties described below are not the only ones we face. Additional risks not presently known to us or other factors not perceived by us to present significant risks to our business at this time also may impair our business operations.

Risks Associated with Our Business

Our business is subject to a number of risks of which you should be aware before making a decision to invest in our common stock. These risks are more fully described in this “Risk Factors” section, including the following:

- We have incurred significant losses since our inception. We expect to incur losses for the foreseeable future and may never achieve or maintain profitability.
- We have a limited operating history and no history of completing any clinical trial or commercializing any product, which may make it difficult for an investor to evaluate the success of our business to date and to assess our future viability.
- We will need substantial additional funding to meet our financial obligations and to pursue our business objectives, including clinical development of SYN-2510. If we are unable to raise capital when needed, we could be forced to delay further development of our product candidates, including SYN-2510, or to curtail our planned operations and the pursuit of our growth strategy.
- Our lead product candidate, SYN-2510, as well as our other product candidates, are currently in early-stage clinical development. If we are unable to successfully develop, receive regulatory approval for and commercialize SYN-2510, or successfully develop any other product candidates, or experience significant delays in doing so, our business will be harmed.
- The regulatory approval processes of the FDA, Medicines and Healthcare Products Regulatory Agency, or MHRA, European Medicines Agency, or EMA and comparable foreign authorities are lengthy, time consuming and inherently unpredictable. If we are not able to obtain required regulatory approval for our product candidates, our business will be substantially harmed.
- Success in preclinical studies or earlier clinical trials may not be indicative of results in future clinical trials. Our product candidates may not have favorable results in clinical trials, if any, or receive regulatory approval.
- Biologics are complex and difficult to manufacture. We intend to rely on ImmuneOnco in China to manufacture clinical supplies of SYN-2510, and we intend to rely on third parties to produce preclinical and clinical supply of other product candidates and commercial supplies of any approved product. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or any approved products or such quantities at an acceptable cost or quality, which could delay, prevent or impair our development or commercialization efforts.
- We have, and we may in the future, engage in strategic transactions to acquire or in-license new product candidates or technologies, and we may not be successful in the developing and commercializing any product candidates we acquire or in-license, including SYN-2510. The licensing or acquisition of third-party intellectual property rights is competitive, and if we are unable

to identify suitable candidates for such transactions on a timely basis or on commercially reasonable terms, it would negatively impact our ability to develop and commercialize product candidates and present significant distractions to our management. The treatable populations for our product candidates may be smaller than we or third parties currently project, which may affect the addressable markets for our product candidates.

- We face significant competition from other biotechnology and pharmaceutical companies, and from non-profit institutions, which may result in others discovering, developing or commercializing products before or more successfully than we do.
- If we or our licensors are unable to obtain and maintain sufficient patent protection for our product candidates, or if the scope of the patent protection is not sufficiently broad, third parties, including our competitors, could develop and commercialize products similar or identical to ours, and our ability to commercialize our product candidates may be adversely affected.
- Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain.
- We are subject to a variety of stringent and evolving U.S. and foreign laws, regulations, rules, contractual obligations, policies and other obligations related to data privacy and data security, and our actual or perceived failure to comply with them could lead to regulatory investigations or actions; litigation; fines and penalties; disruptions of our business operations; reputational harm; loss of revenue or profits and other adverse business consequences.

Risks Related to our Financial Position and Capital Needs

We have incurred significant losses since our inception. We expect to incur losses for the foreseeable future and may never achieve or maintain profitability.

Since our inception, we have incurred significant net losses, and we expect to continue to incur significant expenses and operating losses for the foreseeable future. Our net losses were \$62.2 million and \$143.2 million for the nine months ended September 30, 2024 and 2023, respectively. As of September 30, 2024, we had an accumulated deficit of \$643.2 million. We have financed our operations with \$719.0 million in net proceeds raised in our initial public offering and private placements of convertible preferred stock to date. We have no products approved for commercialization and have never generated any revenue from product sales.

All of our product candidates are in preclinical development, potential investigator-initiated clinical stage or early-stage clinical development. We expect to continue to incur significant expenses and operating losses over the next several years. We expect that it could be many years, if ever, before we have a commercialized product. Our net losses may fluctuate significantly from quarter to quarter and year to year. We anticipate that our expenses will continue to be significant as we:

- pursue clinical development of SYN-2510 and our collaboration with ImmuneOnco, as well as our CoStAR-TIL collaboration; seek to potentially license-in or otherwise acquire additional new product candidates, as well as potentially initiate and complete clinical trials of new product candidates;
- seek regulatory approval for any product candidates that successfully complete clinical trials;
- scale up our clinical and regulatory capabilities;
- rely on collaborators or other third parties to manufacture current good manufacturing practices, or cGMP, material for clinical trials or potential commercial sales;
- establish a commercialization infrastructure and develop internal and external manufacturing and distribution capabilities to commercialize any product candidates for which we may obtain regulatory approval;
- adapt our regulatory compliance efforts to incorporate requirements applicable to marketed products;
- maintain, expand and protect our intellectual property portfolio;
- hire clinical, manufacturing quality control, regulatory, manufacturing and scientific and administrative personnel;

- add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts, our CoSTAR-TIL technology through collaborations or otherwise; and
- incur legal, accounting and other expenses in operating as a public company.

To date, we have not generated any revenue from product sales. To become and remain profitable, we must succeed in developing and eventually commercializing product candidates that generate significant revenue. This will require us to be successful in a range of challenging activities, including completing preclinical testing and clinical trials of our product candidates, obtaining regulatory approval, and manufacturing, marketing and selling any product candidates for which we may obtain regulatory approval, as well as discovering and developing additional product candidates. We are only in the preliminary stages of most of these activities and all of our product candidates are in early-stage development. We may never succeed in these activities and, even if we do, may never generate any revenue or revenue that is significant enough to achieve profitability.

Even if we achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would depress the value of our company and could impair our ability to raise capital, expand our business, maintain our development efforts, obtain product approvals, diversify our offerings or continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

We have a limited operating history and no history of completing any clinical trial or commercializing any product, which may make it difficult for an investor to evaluate the success of our business to date and to assess our future viability.

We are a biopharmaceutical company with a limited operating history. Since we commenced operations in 2019, we have not yet demonstrated our ability to successfully complete any clinical trials, obtain regulatory approvals, manufacture a product on a commercial scale, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful commercialization. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history or a history of successfully developing and commercializing products.

We may encounter unforeseen expenses, difficulties, complications, delays and other known or unknown factors in achieving our business objectives. For example, from late 2022 through 2024, we implemented several strategic reprioritizations and restructurings of our preclinical and clinical development programs and elected to discontinue our TIL development program and our ITIL-168 and ITIL-306 clinical trials. As part of these various restructurings, we have significantly reduced our workforce. We may experience unforeseen delays or other challenges as a result of these actions, which could adversely impact our timelines and operations and, ultimately, our ability to develop product candidates for potential commercialization. We will need to develop clinical, manufacturing, regulatory and commercial capabilities, and we may not be successful in doing so.

We will need substantial additional funding to meet our financial obligations and to pursue our business objectives, including the clinical development of SYN-2510. If we are unable to raise capital when needed, we could be forced to delay further development of our product candidates, including SYN-2510, or curtail our planned operations and the pursuit of our growth strategy.

Our operations have consumed substantial amounts of cash since inception. Developing our in-licensed product candidates, including SYN-2510 and SYN-27M, identifying and potentially acquiring or in-licensing additional new product candidates, conducting preclinical testing and clinical trials and developing manufacturing operations for our product candidates is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain regulatory approval and achieve product sales. We expect to continue to incur significant expenses and operating losses over the next several years as we conduct clinical trials of our product candidates, seek to potentially license-in or otherwise acquire additional new product candidates, initiate future clinical trials of our product candidates, advance our preclinical programs, build our manufacturing capabilities, and seek marketing approval for any product candidates that successfully complete clinical trials. In addition, our product candidates, if approved, may not achieve commercial

success. Our revenue, if any, will be derived from sales of products that we do not expect to be commercially available for a number of years, if at all. If we obtain marketing approval for any product candidates that we develop or otherwise acquire, we expect to incur significant commercialization expenses related to product sales, marketing, distribution and manufacturing. We also expect to continue to incur significant expenses associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in order to continue our operations.

As of September 30, 2024, we had cash, cash equivalents, marketable securities and long-term investments of \$122.9 million, which consists of \$6.7 million in cash and cash equivalents, \$113.7 million in marketable securities and \$2.6 million in long-term investments. We believe that our existing cash, cash equivalents, marketable securities and long-term investments will be sufficient to fund our operating expenses and capital requirements beyond 2026. This estimate is based on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we expect. Changes may occur beyond our control that would cause us to consume our available capital before that time, including changes in and progress of our development activities, acquisitions of additional product candidates, and changes in regulation. Our future capital requirements will depend on many factors, including:

- the scope, progress, cost and results of our collaboration with ImmuneOnco and the clinical development of the products licensed from ImmuneOnco, including SYN-2510 and SYN-27M and related activities;
- the scope, progress, costs and results of our collaborator to develop our CoStAR-TIL cell therapy technology;
- the extent to which we develop, in-license or otherwise acquire additional product candidates and technologies for our product candidate pipeline;
- the number and development requirements of product candidates that we may pursue;
- our ability to complete a potential refinancing and sale of our Tarzana, California facility, as well as subleases of other facilities under lease;
- the costs, timing and outcome of regulatory review of our product candidates;
- our cost of human capital as we expand our capabilities;
- the costs and timing of future commercialization activities, including product manufacturing, marketing, sales, and distribution, for any of our product candidates for which we receive marketing approval;
- the revenue, if any, received from commercial sales of our product candidates for which we receive marketing approval; and
- the costs of operating as a public company.

We will require additional capital to achieve our business objectives. Additional funds may not be available on a timely basis, on favorable terms, or at all, and such funds, if raised, may not be sufficient to enable us to continue to implement our long-term business strategy. Further, our ability to raise additional capital may be adversely impacted by worsening global economic conditions and the disruptions to and volatility in the credit and financial markets in the United States and worldwide, including those resulting from the ongoing armed conflicts in Ukraine, and in the Middle East, U.S.-China trade and political tensions, heightened inflation and interest rates, recent and potential future bank failures and supply chain disruptions, among other geopolitical and macroeconomic factors. If we are unable to raise sufficient additional capital, we could be forced to delay further development of our technologies or product candidates or curtail our planned operations and the pursuit of our growth strategy.

Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish rights to technologies or product candidates.

We will need to raise additional capital to support our operations and execute on our business strategy. Until such time, if ever, as we can generate substantial revenue, we may finance our cash needs through a combination of equity offerings, government or private party grants, debt financings or license and collaboration agreements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring

additional debt, making capital expenditures or declaring dividends. For example, the agreements governing our construction loans contain certain affirmative and negative covenants, including maintaining a specified minimum net worth and amount of liquid assets, which could limit our operations.

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

We have suffered, and in the future could suffer additional losses due to impairment charges, including as a result of being unsuccessful in completing a sale of our Tarzana, California manufacturing facility, or, if we are successful, the assets being sold for less than our carrying value.

To date, we have recorded significant impairment losses on long-lived assets associated with a sustained decrease in our stock price and multiple restructuring plans implemented since December 2022. Most recently, during the nine months ended September 30, 2024, we recorded aggregate impairment charges of approximately \$7.1 million related to our restructuring plans.

We are evaluating opportunities for a potential refinancing and sale of our Tarzana, California manufacturing site, which effective July 10, 2024 has been leased to AstraZeneca Pharmaceuticals LP, as well as subleases of other facilities currently under lease; however, we can provide no assurances that we will successfully refinance or sell our Tarzana facility or enter into subleases of our other facilities, that we will do so in accordance with our expected timeline or that we will recover their carrying value. If we are unable to refinance our construction loans or otherwise repay our construction loans as they come due, our financial position and business will be materially adversely affected. The process of pursuing the plan to refinance and sell our Tarzana facility, or sublease our other facilities may be time consuming and disruptive to our business operations, and if we are unable to effectively manage the process, our businesses, financial condition, and results of operations could be adversely affected and may result in additional non-cash impairment charges. Any potential transactions, and the related valuations, would be dependent upon various external factors beyond our control, including, among others, market conditions, industry trends, interest of third parties, and the availability of financing to potential buyer(s) on reasonable terms.

Risks Related to the Development of our Product Candidates

Our lead product candidate, SYN-2510, as well as our other product candidates, are currently in early-stage clinical development. If we are unable to successfully develop, receive regulatory approval for and commercialize SYN-2510, or successfully develop any other product candidates, or experience significant delays in doing so, our business will be harmed.

We currently have no products approved for commercial sale, and all of our product candidates are currently in early-stage development, including our lead product candidate SYN-2510. As an organization, we have no prior experience completing any clinical trials; we have limited experience in preparing, submitting and prosecuting regulatory filings and have not previously submitted a biologics license application, or BLA, for any product candidate. Each of our programs and product candidates will require additional preclinical and/or clinical development, regulatory approval, obtaining manufacturing supply, capacity and expertise, building a commercial organization or successfully outsourcing commercialization, substantial investment and significant marketing efforts before we generate any revenue from product sales. We do not have any products that are approved for commercial sale, and we may never be able to develop or commercialize marketable products.

Our ability to generate revenue from our product candidates, which we do not expect will occur for several years, if ever, will depend heavily on the successful development, regulatory approval and eventual commercialization of our product candidates. The success of any product candidates that we develop or otherwise may acquire will depend on several factors, including:

- timely and successful completion of preclinical studies and clinical trials;
- effective INDs from the FDA, or comparable foreign applications that allow commencement of our planned clinical trials or future clinical trials for our product candidates;
- sufficiency of our financial and other resources to complete the necessary preclinical studies and clinical trials;
- successful enrollment and completion of clinical trials, including under the FDA's current Good Clinical Practices, or GCPs, and current Good Laboratory Practices;
- successful development of, or making arrangements with third-party manufacturers for, our commercial manufacturing processes for any of our product candidates that receive regulatory approval;
- receipt of timely marketing approvals from applicable regulatory authorities;
- launching commercial sales of products, if approved, whether alone or in collaboration with others;
- acceptance of the benefits and use of our products, including method of administration, if approved, by patients, the medical community and third-party payors, for their approved indications;
- the prevalence and severity of adverse events experienced with any product candidates;
- the availability, perceived advantages, cost, safety and efficacy of alternative therapies for any product candidate, and any indications for such product candidate, that we develop;
- our ability to produce any product candidates we develop on a commercial scale;
- obtaining and maintaining patent, trademark and trade secret protection and regulatory exclusivity for our product candidates and otherwise protecting our rights in our intellectual property portfolio;
- maintaining compliance with regulatory requirements, including cGMPs, and complying effectively with other procedures;
- obtaining and maintaining third-party coverage and adequate reimbursement and patients' willingness to pay out-of-pocket in the absence of such coverage and adequate reimbursement; and
- maintaining a continued acceptable safety, tolerability and efficacy profile of the products following approval.

If we are not successful with respect to one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize the product candidates we develop, which would materially harm our business. If we do not receive marketing approvals for any product candidate we develop, we may not be able to continue our operations. At any time, we may decide to discontinue the development of, or not to commercialize, a product candidate, such as our decision to discontinue our ITIL-168 development program. If we terminate a program in which we have invested significant resources, we will not receive any return on our investment and we will have missed the opportunity to allocate those resources to potentially more productive uses.

We may derive results and data for SYN-2510 and SYN-27M from clinical trials led by ImmuneOnco in China and for our CoStAR-TIL Collaboration Product from an open-label IIT led by our collaborator in China; our role in any such trials, and our access to the clinical results and data, will be limited and there is no assurance that the clinical data from any such trial will be accepted or considered by the FDA, or other comparable regulatory authorities.

Pursuant to the IO Collaboration Agreement, we expect to fund clinical trial(s) of SYN-2510 led by ImmuneOnco in China. In addition, we have a collaborator conducting our first collaborator-led IIT in China related to our CoStAR-TIL Collaboration Product. While these trials may provide us with clinical data that can inform our future development strategy, we do not have control over the protocols, administration, or conduct of the trials or their compliance with regulatory requirements. There is also no assurance that the clinical data from any such clinical trials will be accepted or considered by the FDA or other comparable regulatory authorities. In addition, due to our reliance on a third party to develop our CoStAR-TIL Collaboration Product, we are subject to risks associated with the way IITs are conducted. Third parties in such IITs may not perform their responsibilities on our anticipated schedule or consistent with clinical trial protocols or applicable regulations. Additional risks include difficulties or delays in communicating with investigators or administrators, procedural delays and other timing issues, and difficulties or differences in interpreting data. As a result, our minimal control over the conduct and timing of, and communications with the FDA, the National Medical Products Administration, or NMPA, and other comparable

regulatory authorities regarding IITs expose us to additional risks and uncertainties, many of which are outside our control, and the occurrence of which could adversely affect the prospects for our product candidates. Furthermore, any data integrity issues or patient safety issues arising out of any of these trials would be beyond our control, yet could adversely affect our reputation and damage the clinical and commercial prospects for our product candidates.

Preclinical studies and clinical trials are expensive, time-consuming, difficult to design and implement and involve an uncertain outcome. Further, we may encounter substantial delays in completing the development of our product candidates.

All of our product candidates are in early-stage development and their risk of failure is high. We ultimately ceased our TIL clinical trials after encountering manufacturing and other clinical development challenges and have elected to pursue advancement of our CoStAR-TIL technology via a collaborator. The clinical trials and manufacturing of our product candidates are, and the manufacturing and marketing of our products, if approved, will be, subject to extensive and rigorous review and regulation by numerous government authorities in the United States and in other countries where we intend to test and market our product candidates. Before obtaining regulatory approvals for the commercial sale of any of our product candidates, we must demonstrate through lengthy, complex and expensive preclinical testing and clinical trials that our product candidates are both safe and effective for use in each target indication. In particular, because our product candidates are subject to regulation as biological products, we will need to demonstrate that they are safe, pure and potent for use in their target indications. Each product candidate must demonstrate an adequate risk versus benefit profile in its intended patient population and for its intended use.

Clinical trials are expensive and can take many years to complete, and their outcomes are inherently uncertain. We cannot guarantee that our clinical trials, including our potential collaborator-led clinical trials, will be conducted as planned or completed on schedule, if at all. Failure can occur at any time during the clinical trial process. Even if our clinical trials are completed as planned, we cannot be certain that their results will support the safety and effectiveness of our product candidates for their targeted indications or support continued clinical development of such product candidates. Our clinical trials may not be successful.

In addition, even if we successfully complete clinical trials, we cannot guarantee that the FDA, MHRA, EMA or other comparable foreign regulatory authorities will interpret the results as we do, and more trials could be required before we submit our product candidates for approval. Moreover, results acceptable to support approval in one jurisdiction may be deemed inadequate by another regulatory authority to support regulatory approval in that other jurisdiction. To the extent that the results of the trials are not satisfactory to the FDA, MHRA, EMA or other comparable foreign regulatory authorities for support of a marketing application, we may be required to expend significant resources, which may not be available to us, to conduct additional trials in support of potential approval of our product candidates.

To date, we have not completed any clinical trials required for the approval of any product candidate. We may experience delays in conducting any clinical trials and we do not know whether our clinical trials will begin on time, need to be redesigned, recruit and enroll patients on time or be completed on schedule, or at all. Clinical trials can be delayed, suspended or terminated for a variety of reasons, including in connection with:

- inability to generate sufficient preclinical, toxicology, or other in vivo or in vitro data to support the initiation of clinical trials;
- delays in sufficiently developing, characterizing or controlling a manufacturing process suitable for advanced clinical trials;
- delays in developing suitable assays for screening patients for eligibility for trials with respect to certain product candidates;
- delays in reaching agreement with the FDA, MHRA, EMA or other regulatory authorities as to the design or implementation of our clinical trials;
- obtaining regulatory authorization to commence a clinical trial;

- reaching an agreement on acceptable terms with clinical trial sites or prospective contract research organizations, or CROs, the terms of which can be subject to extensive negotiation and may vary significantly among different clinical trial sites;
- obtaining institutional review board, or IRB, approval at each trial site;
- recruiting suitable patients to participate in a clinical trial;
- having patients complete a clinical trial or return for post-treatment follow-up;
- inspections of clinical trial sites or operations by applicable regulatory authorities, or the imposition of a clinical hold;
- clinical sites, CROs or other third parties deviating from trial protocol or dropping out of a trial;
- failure to perform in accordance with the applicable regulatory requirements, including FDA's GCP requirements, or applicable regulatory requirements in other countries;
- addressing patient safety concerns that arise during the course of a trial, including occurrence of adverse events associated with the product candidate that are viewed to outweigh its potential benefits;
- adding a sufficient number of clinical trial sites;
- manufacturing sufficient quantities of product candidate for use in clinical trials; or
- suspensions or terminations by IRBs of the institutions at which such trials are being conducted, by the Data Safety Monitoring Board, or DSMB, for such trial or by the FDA or other regulatory authorities due to a number of factors, including those described above.

We may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive marketing approval or commercialize our product candidates or significantly increase the cost of such trials, including:

- we may experience changes in regulatory requirements or guidance, or receive feedback from regulatory authorities that requires us to modify the design of our clinical trials;
- clinical trials of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon development programs;
- the number of patients required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate, or participants may drop out of these clinical trials at a higher rate than we anticipate;
- our third-party contractors and collaborators may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- we or investigators might have to suspend or terminate clinical trials of our product candidates for various reasons, including non-compliance with regulatory requirements, a finding that our product candidates have undesirable side effects or other unexpected characteristics, or a finding that the participants are being exposed to unacceptable health risks;
- the cost of clinical trials of our product candidates may be greater than we anticipate, and we may not have funds to cover the costs;
- the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate;
- regulators may revise the requirements for approving our product candidates, or such requirements may not be as we anticipate; and
- any current or future collaborators that conduct clinical trials may face any of the above issues, and may conduct clinical trials in ways they view as advantageous to them but that are suboptimal for us.

If we are required to conduct additional clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of our product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- incur unplanned costs;

- be delayed in obtaining marketing approval for our product candidates or not obtain marketing approval at all;
- obtain marketing approval in some countries and not in others;
- obtain marketing approval for indications or patient populations that are not as broad as intended or desired;
- obtain marketing approval with labeling that includes significant use or distribution restrictions or safety warnings, including boxed warnings or Risk Evaluation and Mitigation Strategies, or REMS;
- be subject to additional post-marketing testing requirements;
- be subject to changes in the way the product is administered; or
- have regulatory authorities withdraw or suspend their approval of the product or impose restrictions on its distribution after obtaining marketing approval.

We could encounter delays if a clinical trial is suspended or terminated by us, by the IRBs of the institutions in which such trials are being conducted, by the DSMB for such trial or by the FDA or other regulatory authorities. Such authorities may impose such a suspension or termination 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, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial.

All of our product candidates will require extensive clinical testing before we are prepared to submit a BLA or marketing authorization application, or MAA, for regulatory approval. We cannot predict with any certainty if or when we might complete the clinical development for our product candidates and submit a BLA or MAA for regulatory approval of any of our product candidates or whether any such BLA or MAA will be approved. We may also seek feedback from the FDA or other regulatory authorities on our clinical development program, and such regulatory authorities may not provide such feedback on a timely basis, or such feedback may not be favorable, which could further delay our development programs.

We cannot predict with any certainty whether or when we might complete a given clinical trial. If we experience delays in the commencement or completion of our clinical trials, or if we terminate a clinical trial prior to completion, the commercial prospects of our product candidates could be harmed, and our ability to generate revenues from our product candidates may be delayed or lost. In addition, any delays in our clinical trials could increase our costs, slow down the development and approval process and jeopardize our ability to commence product sales and generate revenues. Any of these occurrences may harm our business, financial condition and results of operations. 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.

Because our CoStAR-TIL Collaboration Product and any future product candidates developed from our CoStAR platform, represent novel approaches to the treatment of disease, there are many uncertainties regarding the development, market acceptance, third-party reimbursement coverage and commercial potential of our product candidates.

Human immunotherapy products are a new category of therapeutics, and to date, no TIL therapies have been approved by the FDA, MHRA, EMA or other comparable foreign regulatory authorities. Because this is a relatively new and expanding area of novel therapeutic interventions, there are many uncertainties related to development, marketing, reimbursement and the commercial potential for our product candidates. There can be no assurance as to the length of the trial period, the number of patients the FDA, MHRA, EMA or other regulatory authorities will require to be enrolled in the trials in order to establish the safety, efficacy, purity and potency of immunotherapy products or that the data generated in these trials will be acceptable to such authorities to support marketing approval. Regulatory authorities may take longer than usual to come to a decision on any BLA or other comparable application that we submit and may ultimately determine that there is not enough data, information, or experience with our product candidates to support an approval decision. Regulatory agencies may also require that we conduct additional post-marketing studies or implement risk management programs, such as Risk Evaluation and Mitigation Strategies, or REMS, until more experience with our product candidates is obtained. Finally, after increased usage,

we may find that our product candidates do not have the intended effect or have unanticipated side effects, potentially jeopardizing initial or continuing regulatory approval and commercial prospects.

The success of our business depends in part upon our ability to develop engineered TIL therapies using our CoStAR platform, in particular following our recent reprioritization of clinical programs. The CoStAR platform is novel and we have not completed a clinical trial of any product candidate developed using the CoStAR platform. The platform may fail to deliver TIL therapies that are effective in the treatment of cancer. Even if we are able to identify and develop TIL therapies using the CoStAR platform, we cannot assure that such product candidates will achieve marketing approval to safely and effectively treat cancer.

If we uncover any previously unknown risks related to our CoStAR platform, or if we experience unanticipated problems or delays in developing our CoStAR product candidates, we may be unable to achieve our strategy of building a pipeline of TIL therapies.

We may also find that the manufacture of our product candidates is more difficult than anticipated, resulting in an inability to produce a sufficient amount of our product candidates for our clinical trials or, if approved, commercial supply. For example, in October 2022 we paused enrollment in our then ongoing clinical trials to conduct manufacturing analysis and implement corrective and preventative actions and we subsequently discontinued our clinical trials.

There is no assurance that the approaches offered by our products will gain broad acceptance among doctors or patients or that governmental agencies or third-party medical insurers will be willing to provide reimbursement coverage for proposed product candidates. Since our current and future product candidates will represent novel approaches to treating various conditions, it may be difficult, in any event, to accurately estimate the potential revenues from these product candidates. Accordingly, we may spend significant capital trying to obtain approval for product candidates that have an uncertain commercial market. The market for any products that we successfully develop will also depend on the cost of the product. We do not yet have sufficient information to reliably estimate what it will cost to commercially manufacture our current or future product candidates, and the actual cost to manufacture these products could materially and adversely affect the commercial viability of these products. Our goal is to reduce the cost of manufacturing and providing our product candidates. However, unless we can reduce those costs to an acceptable amount, we may never be able to develop a commercially viable product. If we do not successfully develop and commercialize products based upon our approach or find suitable and economical sources for materials used in the production of our products, we will not become profitable, which would materially and adversely affect the value of our common stock.

Our therapies may be provided to patients in combination with other agents provided by third parties. The cost of such combination therapy may increase the overall cost of therapy and may result in issues regarding the allocation of reimbursements between our therapy and the other agents, all of which may affect our ability to obtain reimbursement coverage for the combination therapy from governmental or private third party medical insurers.

We may seek Fast Track designation for our product candidates, and we may be unsuccessful. Even if received, Fast Track designation may not actually lead to a faster review or approval process and does not increase the likelihood that our product candidates will receive marketing approval.

We may seek Fast Track designation for our product candidates, and we may be unsuccessful. If a drug or biologic is intended for the treatment of a serious or life-threatening condition and the product demonstrates the potential to address unmet medical needs for this condition, the sponsor may apply for FDA Fast Track designation for a particular indication. There is no assurance that the FDA will grant this status to any of our product candidates. If granted, Fast Track designation makes a product eligible for more frequent interactions with FDA to discuss the development plan and clinical trial design, as well as rolling review of the application, which means that the company can submit completed sections of its marketing application for review prior to completion of the entire submission. Marketing applications of product candidates with Fast Track designation may qualify for priority review under the policies and procedures offered by the FDA, but the Fast Track designation does not assure any such qualification or ultimate marketing approval by the FDA. The FDA has broad discretion whether or not to grant Fast Track designation, so even if we believe a particular product candidate is eligible for this designation, there can

be no assurance that the FDA would decide to grant it. Even if we do receive Fast Track designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures, and receiving a Fast Track designation does not provide any assurance of ultimate FDA approval. In addition, the FDA may withdraw Fast Track designation at any time if it believes that the designation is no longer supported by data from our clinical development program.

The regulatory approval processes of the FDA, MHRA, EMA and comparable foreign authorities are lengthy, time consuming and inherently unpredictable. If we are not able to obtain required regulatory approval for our product candidates, our business will be substantially harmed.

The time required to obtain approval or other marketing authorizations by the FDA, MHRA, EMA and comparable foreign authorities is unpredictable, and it typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. In addition, approval policies, regulations, and the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. We have not obtained regulatory approval for any product candidate, and it is possible that we may never obtain regulatory approval for any product candidates we may seek to develop in the future. Neither we nor any current or future collaborator is permitted to market any drug product candidates in the United States until we receive regulatory approval of a BLA from the FDA, and we cannot market them in the European Union until we receive approval for a MAA from the EMA, or in other foreign countries until we receive the required regulatory approval in such other countries. To date, we have had no discussions with the FDA regarding our clinical development of SYN-2510 or regulatory approval for SYN-2510. In addition, we have had no discussions with other comparable foreign authorities regarding clinical development programs or regulatory approval for any product candidate.

Prior to obtaining approval to commercialize any drug product candidate in the United States or abroad, we must demonstrate with substantial evidence from well-controlled clinical trials, and to the satisfaction of the FDA, MHRA, EMA or other comparable foreign regulatory agencies, that such product candidates are safe, pure and effective for their intended uses. Results from preclinical studies and clinical trials can be interpreted in different ways. Even if we believe the preclinical or clinical data for our product candidates are promising, such data may not be sufficient to support approval by the FDA and other regulatory authorities. The FDA, MHRA, EMA or other regulatory agency may also require us to conduct additional preclinical studies or clinical trials for our product candidates either prior to or after approval, or it may object to elements of our clinical development programs.

Our product candidates could fail to receive regulatory approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective for its proposed indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and
- the approval policies or regulations of the FDA or comparable foreign authorities may significantly change in a manner rendering our clinical data insufficient for approval.

Of the large number of products in development, only a small percentage successfully complete the FDA or foreign regulatory approval processes and are commercialized. The lengthy approval and marketing authorization process as well as the unpredictability of future clinical trial results may result in our failing to obtain regulatory approval and marketing authorization to market our product candidates, which would significantly harm our business, financial condition, results of operations and prospects.

We have invested a significant portion of our time and financial resources in the development of our clinical and preclinical product candidates. Our business is dependent on our ability to successfully complete preclinical and clinical development of, obtain regulatory approval for, and, if approved, successfully commercialize product candidates in a timely manner.

Even if we eventually complete clinical testing and receive approval of a BLA or foreign marketing application for any product candidates, the FDA, MHRA, EMA or the applicable foreign regulatory agency may grant approval or other marketing authorization contingent on the performance of costly additional clinical trials, including post-marketing clinical trials. The FDA, MHRA, EMA or the applicable foreign regulatory agency also may approve or authorize for marketing a product candidate for a more limited indication or patient population than we originally request, and the FDA, MHRA, EMA or applicable foreign regulatory agency may not approve or authorize the labeling that we believe is necessary or desirable for the successful commercialization of a product candidate. Any delay in obtaining, or inability to obtain, applicable regulatory approval or other marketing authorization would delay or prevent commercialization of that product candidate and would materially adversely impact our business and prospects.

In addition, the FDA, MHRA, EMA and other regulatory authorities may change their policies, issue additional regulations or revise existing regulations, or take other actions, which may prevent or delay approval of our future products under development on a timely basis. Such policy or regulatory changes could impose additional requirements upon us that could delay our ability to obtain approvals, increase the costs of compliance or restrict our ability to maintain any marketing authorizations we may have obtained.

Success in preclinical studies or earlier clinical trials may not be indicative of results in future clinical trials. Our product candidates may not have favorable results in later clinical trials, if any, or receive regulatory approval.

Success in preclinical testing and any early investigator-initiated clinical trials does not ensure that later clinical trials will generate the same results or otherwise provide adequate data to demonstrate the efficacy and safety of a product candidate. Preclinical tests and Phase 1 and Phase 2 clinical trials are primarily designed to test safety, to study pharmacokinetics and pharmacodynamics and to understand the side effects of product candidates at various doses and schedules. Success in preclinical or animal studies and early clinical trials does not ensure that later large-scale efficacy trials will be successful nor does it predict final results. For example, we may be unable to identify suitable animal disease models for our product candidates, which could delay or frustrate our ability to

proceed into clinical trials or obtain marketing approval. Our product candidates may fail to show the desired safety and efficacy in clinical development despite having progressed through preclinical studies and initial clinical trials.

Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical trials even after achieving promising results in preclinical testing and earlier-stage clinical trials. Data obtained from preclinical and clinical activities are subject to varying interpretations, which may delay, limit or prevent regulatory approval. In addition, we may experience regulatory delays or rejections as a result of many factors, including changes in regulatory policy during the period of our product candidate development. Any such delays could negatively impact our business, financial condition, results of operations and prospects.

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

From time to time, we may publish interim, top-line or preliminary results from our clinical trials. Interim results from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. Preliminary or top-line results also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, interim and preliminary data should be viewed with caution until the final data are available. Differences between preliminary, top-line or interim data and final data could significantly harm our business prospects and may cause the trading price of our common stock to fluctuate significantly. 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. As a result, the top-line results that we report may differ from future results of the same studies, or different conclusions or considerations may qualify such results, once additional data have been received and fully evaluated.

Further, others, including regulatory agencies may not accept or agree with our assumptions, estimates, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular development program, the approvability or commercialization of the particular product candidate or product and our company in general. In addition, the information we choose to publicly disclose regarding a particular study or clinical trial is based on what is typically extensive information, and you or others may not agree with what we determine is the material or otherwise appropriate information to include in our disclosure. Any information we determine not to disclose may ultimately be deemed meaningful by you or others with respect to future decisions, conclusions, views, activities or otherwise regarding a particular product candidate or our business. If the interim, top-line or preliminary data that we report differ from actual results, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for, and commercialize, product candidates may be harmed, which could significantly harm our business prospects.

Our preclinical studies and clinical trials may fail to demonstrate substantial evidence of the safety and efficacy of our product candidates, or serious adverse or unacceptable side effects may be identified during the development of our product candidates, which could prevent, delay or limit the scope of regulatory approval of our product candidates, limit their commercialization, increase our costs or necessitate the abandonment or limitation of the development of some of our product candidates.

To obtain the requisite regulatory approvals for the commercial sale of our product candidates, we must demonstrate through lengthy, complex and expensive preclinical testing and clinical trials that our product candidates are safe, pure and potent for use in each target indication. These trials are expensive and time consuming, and their outcomes are inherently uncertain. Failures can occur at any time during the development process. Preclinical studies and clinical trials often fail to demonstrate safety or efficacy of the product candidate studied for the target indication, and most product candidates that begin clinical trials are never approved.

We may fail to demonstrate with substantial evidence from adequate and well-controlled trials, and to the satisfaction of the FDA or comparable foreign regulatory authorities, that our product candidates are safe and potent for their intended uses.

If our product candidates are associated with undesirable effects in preclinical studies or clinical trials or have characteristics that are unexpected, we may decide or be required to perform additional preclinical studies or to halt or delay further clinical development of our product candidates or to limit their development to more narrow uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe, or more acceptable from a risk-benefit perspective, which may limit the commercial expectations for the product candidate, if approved. In particular with respect our TIL product candidates, side effects may not be appropriately recognized or managed by the treating medical staff, as toxicities resulting from personalized cell therapy are not normally encountered in the general patient population and by medical personnel.

If any such adverse events occur, our clinical trials could be suspended or terminated. If we cannot demonstrate that any adverse events were not caused by the drug, the FDA, MHRA, EMA 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. Even if we are able to demonstrate that all future serious adverse events are not product-related, such occurrences could affect patient recruitment or the ability of enrolled patients to complete the trial. Moreover, if we elect, or are required, to not initiate, delay, suspend or terminate any future clinical trial of any of our product candidates, the commercial prospects of such product candidates may be harmed and our ability to generate product revenues from any of these product candidates may be delayed or eliminated. Any of these occurrences may harm our ability to develop other product candidates, and may harm our business, financial condition and prospects significantly.

If our product candidates are associated with side effects in clinical trials or have characteristics that are unexpected, we may need to abandon their development or limit development to more narrow uses in which the side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective. The FDA, MHRA, EMA, comparable foreign regulatory authorities or an IRB may also require that we suspend, discontinue, or limit our clinical trials based on safety information, or that we conduct additional animal or human studies regarding the safety and efficacy of our product candidates which we have not planned or anticipated. Such findings could further result in regulatory authorities failing to provide marketing authorization for our product candidates or limiting the scope of the approved indication, if approved. Many product candidates that initially showed promise in early-stage testing have later been found to cause side effects that prevented further development of the product candidate.

Additionally, if one or more of our product candidates receives marketing approval, and we or others identify undesirable side effects caused by such products, a number of potentially significant negative consequences could result, including:

- regulatory authorities may suspend, withdraw or limit approvals of such product, or seek an injunction against its manufacture or distribution;
- regulatory authorities may require additional warnings on the label;
- we may be required to create a medication guide outlining the risks of such side effects for distribution to patients or other requirements subject to a REMS;
- we may be required to change the way a product is administered or conduct additional trials;
- we could be sued and held liable for harm caused to patients;
- we may decide to remove the product from the market;
- we may not be able to achieve or maintain third-party payor coverage and adequate reimbursement
- we may be subject to fines, injunctions or the imposition of civil or criminal penalties; and
- our reputation and physician or patient acceptance of our products may suffer.

There can be no assurance that we will resolve any issues related to any product-related adverse events to the satisfaction of the FDA or comparable foreign regulatory agency in a timely manner or at all. Moreover, any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate, if approved, and could significantly harm our business, results of operations and prospects.

As an organization, we do not have experience completing clinical trials, and may be unable to complete clinical trials for any product candidates we may develop, including SYN-2510 or our CoStAR-TIL Collaboration Product.

We are early in our development efforts for our product candidates and will need to successfully complete clinical trials, including pivotal clinical trials, in order to obtain FDA, MHRA, EMA or comparable foreign regulatory authorities' approval to market any of our product candidates. Carrying out clinical trials and the submission of a successful BLA or MAA is a complicated process. As an organization, we are early in the process of collaborating with ImmuneOnco on the development of SYN-2510 and SYN-27M and with our IIT collaborator in China, and have no prior experience in China or in similar collaborations, or in completing any clinical trial, have limited experience in preparing regulatory submissions and have not previously submitted a BLA or MAA for any product candidate. We do not have a clinical development team. We have no prior experience developing bispecific antibodies and have no experience treating patients with bispecific antibodies. We have only previously treated patients with our TIL product in a compassionate use program in the United Kingdom with a TIL product that was manufactured using a prior version of the ITIL-168 manufacturing process, and dosed one patient in our prior clinical trial for ITIL-306. We have had no interactions with the FDA related to SYN-2510 and cannot be certain how many clinical trials of SYN-2510 will be required or how such trials should be designed. Consequently, we may be unable to successfully and efficiently execute and complete necessary clinical trials in a way that leads to submission of the applicable regulatory applications and approval of SYN-2510, or any other product candidate. We may require more time and incur greater costs than our competitors and may not succeed in obtaining regulatory approvals of product candidates that we develop, including SYN-2510. Failure to commence or complete, or delays in, our collaboration or planned clinical trials, could prevent us from or delay us in commercializing our product candidates, including SYN-2510.

We may experience delays or difficulties in the enrollment and/or retention of patients in clinical trials, which could delay or prevent our receipt of necessary regulatory approvals.

Successful and timely completion of clinical trials will require that we enroll a sufficient number of patients. 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 and competition for patients eligible for our clinical trials with competitors which may have ongoing clinical trials for product candidates that are under development to treat the same indications as one or more of our product candidates, or approved products for the conditions for which we are developing our product candidates.

Trials may be subject to delays as a result of patient enrollment taking longer than anticipated or patient withdrawal. We may not be able to initiate or continue clinical trials for our product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the FDA or comparable foreign regulatory authorities. We cannot predict how successful we will be at enrolling subjects in future clinical trials. Subject enrollment is affected by other factors including:

- the severity and difficulty of diagnosing the disease under investigation
- the eligibility and exclusion criteria for the trial in question;
- the size of the patient population and process for identifying patients;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- the design of the trial protocol;
- the perceived risks and benefits of the product candidate in the trial;
- the availability of competing commercially available therapies and other competing therapeutic candidates' clinical trials for the disease or condition under investigation;
- the willingness of patients to be enrolled in our clinical trials;
- the efforts to facilitate timely enrollment in clinical trials;
- potential disruptions caused by disease outbreaks, epidemics and pandemics, including difficulties in initiating clinical sites, enrolling and retaining participants, diversion of healthcare resources away from clinical trials, travel or quarantine policies that may be implemented, and other factors;
- the patient referral practices of physicians;

- the ability to monitor patients adequately during and after treatment; and
- the proximity and availability of clinical trial sites for prospective patients.

Our inability to enroll a sufficient number of patients for clinical trials would result in significant delays and could require us to abandon one or more clinical trials altogether. Enrollment delays in these clinical trials may result in increased development costs for our product candidates, which would cause the value of our company to decline and limit our ability to obtain additional financing. Furthermore, we expect to rely on CROs and clinical trial sites to ensure the proper and timely conduct of our clinical trials and we will have limited influence over their performance.

Furthermore, even if we are able to enroll a sufficient number of patients for our clinical trials, we may have difficulty maintaining enrollment of such patients in our clinical trials.

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

We may seek orphan drug designation for some or all of our product candidates in specific orphan indications in which there is a medically plausible basis for the use of these product candidates. Under the Orphan Drug Act, the FDA may grant orphan drug designation to a drug or biologic intended to treat a rare disease or condition, defined as a patient population of fewer than 200,000 individuals in the United States, or a patient population of 200,000 or more in the United States where there is no reasonable expectation that the cost of developing and making available the drug or biologic will be recovered from sales in the United States. Orphan drug designation must be requested before submitting a BLA. Although we may seek orphan drug designation for some or all of our product candidates, we may never receive such designations.

In the United States, orphan drug designation entitles a party to financial incentives such as tax advantages and user fee waivers. Opportunities for grant funding toward clinical trial costs may also be available for clinical trials of drugs or biologics for rare diseases, regardless of whether the drugs or biologics are designated for the orphan use.

In addition, if a drug or biologic with an orphan drug designation subsequently receives the first marketing approval for a particular active ingredient or principal molecular structural features for the indication for which it has such designation, the product is entitled to a seven year period of marketing exclusivity, which precludes the FDA from approving another marketing application for the same drug and indication for that time period, except in limited circumstances such as a showing of clinical superiority to the product with orphan drug exclusivity or if the FDA finds that the holder of the orphan drug exclusivity has not shown that it can ensure the availability of sufficient quantities of the orphan product to meet the needs of patients with the disease or condition for which the drug was designated. Even if we obtain orphan drug designation for a product candidate, we may not be the first to obtain marketing approval for any particular orphan indication due to the uncertainties associated with developing biological products. If we seek orphan drug designation, we may be unsuccessful in obtaining such orphan drug designation for our product candidates. Even if we obtain orphan drug exclusivity for any of our product candidates, we may be unable to maintain the benefits associated with orphan drug designation, or such orphan drug exclusivity may not effectively protect those product candidates from competition because different drugs can be approved for the same condition, and orphan drug exclusivity does not prevent the FDA from approving the same or a different drug in another indication. Even after an orphan drug is granted orphan drug exclusivity and approved, the FDA can subsequently approve a later application for the same drug for the same condition before the expiration of the seven-year exclusivity period if the FDA concludes that the later drug is clinically superior in that it is shown to be safer in a substantial portion of the target populations, more effective or makes a major contribution to patient care. In addition, a designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan drug designation. Moreover, orphan drug-exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or that we are unable to manufacture sufficient quantities of the product to meet the needs of patients with the rare disease or condition. Orphan drug designation neither shortens the development time or regulatory review time of a drug nor gives the drug any advantage in the regulatory review or approval process.

Breakthrough therapy designation by the FDA for any product candidate may not lead to a faster development or regulatory review or approval process, and it does not increase the likelihood that the product candidate will receive marketing approval.

We may, in the future, apply for breakthrough therapy designation, or the equivalent thereof in foreign jurisdictions (where available), for our product candidates. A breakthrough therapy is defined as a product candidate that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the product candidate may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For product candidates that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Product candidates designated as breakthrough therapies by the FDA are also eligible for priority review if supported by clinical data at the time of the submission of the BLA.

Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe that one of our product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of a breakthrough therapy designation for a product candidate may not result in a faster development process, review or approval compared to product candidates considered for approval under conventional FDA procedures and it would not assure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that the product candidate no longer meets the conditions for qualification or it may decide that the time period for FDA review or approval will not be shortened.

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

Because we have limited financial and management resources, we must focus on development programs and product candidates that we identify for specific indications. As such, we are currently primarily focused on our recently in-licensed product candidate SYN-2510 for the treatment of non-small cell lung cancer and potentially licensing-in or otherwise acquiring other new product candidates. As a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications for these 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 development programs and product candidates for specific indications may not yield any commercially viable products. For example, before in-licensing SYN-2510, our strategy prioritized development of our CoStAR-TIL Collaboration Product, and before that our strategy focused primarily on the development of ITIL-306, which we discontinued in January 2024, and prior to that, ITIL-168 for the treatment of PD-1 inhibitor-relapsed or refractory advanced cutaneous melanoma, which we discontinued in 2022. Further, 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.

We plan to conduct clinical trials for our product candidates outside the United States, including China, and the FDA and similar foreign regulatory authorities may not accept data from such trials conducted in locations outside of their jurisdiction.

Our subsidiary, SynBioTx, is party to a collaboration with ImmuneOnco pursuant to which ImmuneOnco is pursuing clinical trials of SYN-2510 and SYN-27M in China to generate clinical data from patients with certain solid tumor cancers. We are also party to another collaboration in China related to an IIT with the goal of generating early clinical data for our CoStAR-TIL Collaboration Product from patients with NSCLC in China. In addition, we may choose to conduct other clinical trials outside the United States, including in the United Kingdom, Australia, Canada, Europe or other foreign jurisdictions. The acceptance by the FDA of data from clinical trials or IITs conducted in China or any other clinical trial outside the United States may be subject to certain conditions or may

not be accepted at all. In cases where data from clinical trials conducted outside the United States are intended to serve as the sole basis for marketing approval in the United States, the FDA will generally not approve the application on the basis of foreign data alone unless (i) the data are applicable to the U.S. population and U.S. medical practice; (ii) the trials were performed by clinical investigators of recognized competence and (iii) the data may be considered valid without the need for an on-site inspection by the FDA or, if the FDA considers such an inspection to be necessary, the FDA is able to validate the data through an on-site inspection or other appropriate means. For example, in February 2022, the FDA publicly rebuked an oncology product sponsor for submitting a marketing application with Phase 3 clinical data solely from China and since that time, it has declined to approve other applications that contained primarily China-generated clinical data. Additionally, the FDA's clinical trial requirements, including sufficient size of patient populations and statistical powering, must be met. Many foreign regulatory bodies have similar approval requirements. In addition, such foreign trials would be subject to the applicable local laws of the foreign jurisdictions where the trials are conducted. There can be no assurance that the FDA or any similar foreign regulatory authority will accept data from trials conducted outside of the United States, including China, or the applicable jurisdiction. If the FDA or any similar foreign regulatory authority does not accept such data, it would result in the need for additional trials, which would be costly and time-consuming and delay aspects of our business plan, and which may result in our product candidates not receiving approval or clearance for commercialization in the applicable jurisdiction.

We have, and we may in the future, engage in strategic transactions to acquire or in-license new product candidates or technologies, and we may not be successful in developing and commercializing any product candidates we acquire or in-license, including SYN-2510. The licensing or acquisition of third-party intellectual property rights is competitive, and if we are unable to identify suitable candidates for such transactions on a timely basis or on commercially reasonable terms, it would negatively impact our ability to develop and commercialize product candidates and present significant distractions to our management.

Our strategy is currently focused on developing SYN-2510, which we in-licensed from ImmuneOnco in August 2024. However, we may seek in the future to engage in additional strategic transactions to in-license or acquire and develop additional therapeutic assets for diseases with significant unmet medical need. We may not be able to continue to identify, in-license or otherwise acquire, and subsequently develop, new product candidates in addition to our current pipeline. The licensing or acquisition of third-party intellectual property rights is a competitive area, and several more established companies may pursue strategies to license or acquire third-party intellectual property rights or assets that we may consider attractive for further development. These established companies may have a competitive advantage over us due to their size, capital resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us, and companies that do not perceive us to be competitor may be reluctant to consider licensing to us given our lack of meaningful experience beyond TILs. In addition, the process of identifying new product candidates and technologies that may be available to acquire or in-license and assessing their potential and value is difficult and time-consuming. Even if we identify suitable candidates to acquire or in-license, negotiating strategic transactions is time-consuming and may distract our management from focusing on developing our other product candidates. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment or at all. Even if we are successful in continuing to build our pipeline, either through internal research and development or through in-licensing or other asset acquisitions, the potential product candidates that we identify may not be suitable for clinical development. For example, product candidates may be shown to have harmful side effects or other characteristics that indicate that they are unlikely to be successfully developed, much less receive marketing approval and achieve market acceptance. We may not be successful in developing or commercializing the product candidates we have licensed-in, including the product candidates licensed from ImmuneOnco, or any future product candidate we may acquire or in-license. If we do not successfully develop and commercialize product candidates, we will not be able to obtain product revenue in future periods, which likely would result in significant harm to our financial position and adversely affect our stock price.

If we do not achieve our plans and projected development goals in the timeframes we announce and expect, the commercialization of our products may be delayed.

From time to time, we may estimate the timing of the accomplishment of various scientific, clinical, regulatory, manufacturing and other product development goals, which we sometimes refer to as milestones, including in connection with our collaborations. These milestones may include the commencement or completion of, and availability of data from, preclinical 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 a variety of assumptions. In particular with respect to expected milestones related to our lead product candidate, SYN-2510, we are setting timelines and making assumptions for a product candidate that we acquired very recently. We have no prior experience developing a bispecific antibody and, accordingly, are making clinical, regulatory, manufacturing and other assumptions related to a bispecific antibody for the first time. The actual timing of these milestones can vary significantly compared to our estimates, in some cases for reasons beyond our control. We may experience numerous unforeseen events during, or as a result of clinical trials that we conduct, such as the observed decrease in 2022 of rates of successful manufacturing of ITIL-168 that resulted in the decision to voluntarily pause our clinical trials and contributed in part to our decision to ultimately discontinue our ITIL-168 development program, that could delay or prevent our ability to receive marketing approval or commercialize our product candidates. In addition, failure to meet projected milestones may negatively impact the trading price of our common stock and our ability to raise additional capital on attractive terms or at all.

The market opportunities for any current or future product candidate we develop, if approved, may be limited to those patients who are ineligible for established therapies or for whom prior therapies have failed, and may be small.

Any revenue we are able to generate in the future from product sales will be dependent, in part, upon the size of the market in the United States and any other jurisdiction for which we gain regulatory approval and have commercial rights. If the markets or patient subsets that we are targeting are not as significant as we estimate, we may not generate significant revenues from sales of such products, even if approved.

Cancer therapies are sometimes characterized as first-line, second-line or third-line, and the FDA often approves new therapies initially only for third-line use. When cancer is detected early enough, first-line therapy, usually chemotherapy, immunotherapy, hormone therapy, surgery, radiation therapy or a combination of these, is sometimes adequate to cure the cancer or prolong life without a cure. Second- and third-line therapies are administered to patients when prior therapy is not effective. We may initially seek approval for product candidates we develop as a therapy for patients who have received one or more prior treatments. If we do so, for those products that prove to be sufficiently beneficial, if any, we would expect to seek approval potentially as a first-line therapy, but there is no guarantee that any product candidate we develop, even if approved, would be approved for first-line therapy, and, prior to any such approvals, we may have to conduct additional clinical trials.

The number of patients who have the types of cancer we are targeting may turn out to be lower than expected. Additionally, the potentially addressable patient population for our current or future product candidates may be limited, if and when approved. Further, even if any of our product candidates are approved by the FDA or comparable foreign regulators, their approved indications may be limited to a subset of the indications that we targeted. Even if we obtain significant market share for any product candidate, if and when approved, if the potential target populations are small, we may never achieve profitability without obtaining marketing approval for additional indications, including to be used as first- or second-line therapy.

We may develop SYN-2510, SYN-27M, CoStAR-TIL and future product candidates for use in combination with other therapies or third-party product candidates, which exposes us to additional regulatory risks.

We may develop the product candidates licensed-in from ImmuneOnco or CoStAR-TIL and future product candidates for use in combination with one or more currently approved cancer therapies. Even if any product candidate we develop were to receive marketing approval or be commercialized for use in combination with other existing therapies, we would continue to be subject to the risk that the FDA, MHRA, EMA or comparable foreign regulatory authorities could revoke approval of the therapy used in combination with our product candidate or that safety, efficacy, manufacturing or supply issues could arise with these existing therapies. This could result in our own products being removed from the market or being less successful commercially. Combination therapies are

commonly used for the treatment of cancer, and we would be subject to similar risks if we develop any of our product candidates for use in combination with other drugs or for indications other than cancer.

We may also evaluate product candidates in combination with one or more other third-party product candidates that have not yet been approved for marketing by the FDA, MHRA, EMA or comparable foreign regulatory authorities. If so, we will not be able to market and sell any product candidate we develop in combination with any such unapproved cancer therapies that do not ultimately obtain marketing approval.

If the FDA or comparable foreign regulatory authorities do not approve these other biological products or revoke their approval of, or if safety, efficacy, manufacturing or supply issues arise with, the biologics we choose to evaluate in combination with any product candidate we develop, we may be unable to obtain approval of or market any such product candidate.

Risks Related to the Manufacturing of our Product Candidates

Biologics are complex and difficult to manufacture. We intend to rely on ImmuneOnco in China to manufacture clinical supplies of SYN-2510, and we intend to rely on third parties to produce preclinical and clinical supply of other product candidates and commercial supplies of any approved product. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or any approved products or such quantities at an acceptable cost or quality, which could delay, prevent or impair our development or commercialization efforts.

We currently rely, and expect to continue to rely, on third party manufacturers, including ImmuneOnco to manufacture and to perform quality testing for SYN-2510 as well as our collaborator for the IIT in China to manufacture the CoStAR-TIL Collaboration Product. Reliance on third parties exposes us to risks associated with having reduced control over manufacturing activities, and any disruptions to the operations of our third-party manufacturers, including those caused by conditions unrelated to our business or operations such as bankruptcy of the manufacturer, could materially and adversely affect our business.

We do not operate manufacturing facilities for the production of clinical or commercial supplies of our product candidates and currently have no supply agreements for the production of any of our product candidates. We have no personnel with experience in manufacturing bispecific antibodies and lack the resources and the capabilities to manufacture any of our product candidates on any scale, including clinical or commercial scale. We currently plan to rely on third parties for supply of our product candidates and for commercial supply if any of our product candidates are approved for sale.

We intend to enter into a supply agreement with ImmuneOnco for supply of SYN-2510 for use in clinical trials. We currently have no agreements with third-party manufacturers for development, validation and manufacturing of SYN-2510 to secure the long-term clinical or commercial supply of SYN-2510 or for any of our other products candidates. We may be unable to secure agreements for commercial supply with third-party manufacturers, or may be unable to do so on acceptable terms. The third-party manufacturers may not successfully carry out their contractual duties or obligations, the occurrence of which could substantially increase our costs and limit our supply of such product candidates. The demand for third-party manufacturer's services is very high, and such manufacturers could be subject to market transactions including mergers, acquisitions and other market consolidation transactions that limit their ability to provide products and services to us thereby increasing the time and cost it could take us to manufacture our product candidates or any approved products.

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

- reliance on the third party for regulatory compliance and quality assurance;
- the possible breach of the manufacturing agreement by the third party;
- the possible diversion of manufacturing capacity to other customers by the third party;
- the possible misappropriation of our proprietary information, including our trade secrets and know-how; and

- the possible termination or non-renewal of the agreement by the third party at a time that is costly or inconvenient for us.

Third-party manufacturers, including ImmuneOnco, may not be able to comply with current cGMP regulations or similar regulatory requirements outside the United States. Our failure, or the failure of our third-party manufacturers, including ImmuneOnco, to comply with applicable regulations could result in sanctions being imposed on us, including fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our product candidates.

Our product candidates and any products that we may develop may compete with other product candidates and products for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for us. In addition, in order to conduct late-stage clinical trials of our product candidates, we will need to have them manufactured in large quantities. Our third-party manufacturers, including ImmuneOnco, 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. Moreover, the manufacture of TILs is particularly difficult and complex and we may not achieve any results from the IIT in China given the challenges of TILs manufacturing.

Moreover, if our third-party manufacturers, including ImmuneOnco, are unable to successfully scale up the manufacture 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 that product candidate may be delayed or not obtained, which could significantly harm our business.

If the third parties, including ImmuneOnco, that we engage to manufacture product for our preclinical tests and clinical trials should cease to continue to do so for any reason, we likely would experience delays in advancing these clinical trials while we identify and qualify replacement suppliers, and we may be unable to obtain replacement supplies on terms that are favorable to us. In addition, if we are not able to obtain adequate supplies of our product candidates or the drug substances used to manufacture them, it will be more difficult for us to develop our product candidates and compete effectively.

If our third party manufacturers divert their capacity and/or supply of materials needed for our product candidates, our ability to complete our clinical trials or eventually bring our product candidates to market may be compromised. Further, if manufacturing of our lead product candidate SYN-2510 is transferred from ImmuneOnco to another manufacturer for any reason, loss of any of the knowledge transferred relating to SYN-2510 may cause us to incur additional transition costs or result in delays in the manufacturing of SYN-2510.

We rely on ImmuneOnco for the capability to manufacture our lead product candidate, SYN-2510, as well as SYN-27M, and expect to rely on third party manufacturers for any other product candidates we may develop. We plan to enter into a supply agreement with ImmuneOnco for manufacturing of SYN-2510, and the termination or ImmuneOnco's breach of such agreement could require us to find an alternative manufacturer for SYN-2510 and delay development and commercialization of SYN-2510. Manufacturing of biological compounds is inherently complex, and shifting manufacturing relationship to another third-party manufacturer takes significant time and resources and may result in higher costs and potential inventory issues. Any failure of ImmuneOnco to adequately transfer knowledge to another manufacturer could have a material adverse effect on our business. In addition, ImmuneOnco's manufacturing processes may use materials which we may not be able to secure, requiring us to have to develop alternative processes and delay manufacturing.

Our reliance on ImmuneOnco and/or other third party manufacturers exposes us to the risk that such manufacturers may divert their capacity and/or supply of materials needed for our product candidates, compromising our ability to complete our clinical trials or commercialize our product candidates. Large pharmaceutical companies with greater resources, either through acquisitions, market consolidation or otherwise, may be able to obtain privileged access to manufacturing capacity and/or supply of material needed for the manufacture of SYN-2510 or

our other product candidates. If our competitors are able to use their resources to secure preferential access to the supply capacity of third party manufacturers, or if third party manufacturers elect to terminate their contracts with us in favor of exclusive contracts with other larger pharmaceutical companies, our ability to obtain a supply of SYN-2510 or any other product candidates may be impacted resulting in significant delays and higher costs for development and commercialization of our products. We may not be able to complete our clinical trials or market our products at scale without stable partnerships with third party manufacturers who produce SYN-2510 or other drug compounds necessary for our product candidates.

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

As product candidates proceed through preclinical studies to late-stage clinical trials towards potential approval and commercialization, it is common that various aspects of the development program, such as manufacturing methods and formulation, are altered along the way in an effort to optimize processes and product characteristics. Such changes carry the risk that they will not achieve our intended objectives. Any such changes could cause our product candidates to perform differently and affect the results of planned clinical trials or other future clinical trials conducted with the materials manufactured using altered processes. Such changes may also require additional testing, FDA notification or FDA approval. This could delay completion of clinical trials, require the conduct of bridging clinical trials or the repetition of one or more clinical trials, increase clinical trial costs, delay approval of our product candidates and jeopardize our ability to commence sales and generate revenue. In addition, we may be required to make significant changes to our upstream and downstream processes across our pipeline, which could delay the development of our future product candidates.

Risks Related to the Commercialization of our Product Candidates

Even if any of our product candidates receive marketing approval, they may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success.

If any of our product candidates receive marketing approval, they may nonetheless fail to gain sufficient market acceptance by physicians, patients, third-party payors and others in the medical community. If our product candidates do not achieve an adequate level of acceptance, we may not generate significant revenue and we may not become profitable. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy, safety and potential advantages compared to alternative treatments;
- our ability to offer our products for sale at competitive prices;
- the convenience and ease of administration compared to alternative treatments;
- product labeling or product insert requirements of the FDA, MHRA, EMA or other comparable foreign regulatory authorities, including any limitations or warnings contained in a product's approved labeling, including any black box warning or REMS;
- the willingness of the target patient population to try new treatments and of physicians to prescribe these treatments;
- our ability to hire and retain a sales force;
- the strength of marketing and distribution support;
- the availability of third-party coverage and adequate reimbursement for our product candidates, once approved;
- the prevalence and severity of any side effects; and
- any restrictions on the use of our products together with other medications.

If we are unable to establish sales, marketing and distribution capabilities for any product candidate that may receive regulatory approval, we may not be successful in commercializing those product candidates if and when they are approved.

We do not have sales or marketing infrastructure. To achieve commercial success for any product candidate for which we may obtain marketing approval, we will need to establish a sales and marketing organization. In the future, we expect to build a focused sales and marketing infrastructure to market our product candidates in the United States, if they are approved. There are risks involved with establishing our own sales, marketing and distribution capabilities. For example, recruiting and training a sales force is expensive and time consuming and could delay any product launch. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

Factors that may inhibit our efforts to market our products on our own include:

- our inability to recruit, train and retain adequate numbers of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to physicians in order to educate physicians about our product candidates, once approved;
- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and
- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

If we are unable to establish our own sales, marketing and distribution capabilities and are forced to enter into arrangements with, and rely on, third parties to perform these services, our revenue and our profitability, if any, are likely to be lower than if we had developed such capabilities ourselves. In addition, we may not be successful in entering into arrangements with third parties to sell, market and distribute our product candidates or may be unable to do so on terms that are favorable to us. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we do not establish sales, marketing and distribution capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

The treatable populations for our product candidates may be smaller than we or third parties currently project, which may affect the addressable markets for our product candidates.

Our projections of the number of people who have the diseases we are seeking to treat, as well as the subset of people with these diseases who have the potential to benefit from treatment with our product candidates, are estimates based on our knowledge and understanding of these diseases. These estimates may prove to be incorrect and new studies may report lower incidence or prevalence estimates of these diseases. The number of patients in the United States, the European Union and elsewhere may turn out to be lower than expected, may not be otherwise amenable to treatment with our product candidates or patients may become increasingly difficult to identify and access, all of which would adversely affect our business, financial condition, results of operations and prospects. Further, even if we obtain approval for our product candidates, the FDA or other regulators may limit their approved indications to more narrow uses or subpopulations within the populations for which we are targeting development of our product candidates.

The total addressable market opportunity for our product candidates will ultimately depend upon a number of factors including the diagnosis and treatment criteria included in the final label, if approved for sale in specified indications, acceptance by the medical community, patient access and product pricing and reimbursement. Incidence and prevalence estimates are frequently based on information and assumptions that are not exact and may not be appropriate, and the methodology is forward-looking and speculative. The process we have used in developing an estimated incidence and prevalence range for the indications we are targeting has involved collating limited data from multiple sources. Accordingly, the incidence and prevalence estimates included in this Quarterly Report on Form 10-Q or our other filings with the Securities and Exchange Commission, or the SEC, should be viewed with caution. Further, the data and statistical information used in this Quarterly Report on Form 10-Q or our other filings with the SEC, including estimates derived from them, may differ from information and estimates made by our competitors or from current or future studies conducted by independent sources.

Off-label use or misuse of our products may harm our reputation in the marketplace, result in injuries that lead to costly product liability suits, and/or subject us to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with any product.

If our product candidates are approved by the FDA, we may only promote or market our product candidates for their specifically approved indications. We will train our marketing and sales force against promoting our product candidates for uses outside of the approved indications for use, known as “off-label uses.” We cannot, however, prevent a physician from using our products off-label, when in the physician’s independent professional medical judgment he or she deems it appropriate. Furthermore, the use of our products for indications other than those approved by the FDA may not effectively treat such conditions. Any such off-label use of our product candidates could harm our reputation in the marketplace among physicians and patients. There may also be increased risk of injury to patients if physicians attempt to use our products for these uses for which they are not approved, which could lead to product liability suits that that might require significant financial and management resources and that could harm our reputation.

Advertising and promotion of any product candidate that obtains approval in the United States will be heavily scrutinized by the FDA, the U.S. Federal Trade Commission, the Department of Justice, or the DOJ, the Office of Inspector General of the U.S. Department of Health and Human Services, or HHS, state attorneys general, members of the U.S. Congress, and the public. Additionally, advertising and promotion of any product candidate that obtains approval outside of the United States will be heavily scrutinized by comparable foreign entities and stakeholders. Violations, including actual or alleged promotion of our products for unapproved or off-label uses, are subject to enforcement letters, inquiries, and investigations, and civil and criminal sanctions by the FDA, DOJ, or comparable foreign bodies. Any actual or alleged failure to comply with labeling and promotion requirements may result in fines, warning letters, mandates to corrective information to healthcare practitioners, injunctions, or civil or criminal penalties.

We face significant competition from other biotechnology and pharmaceutical companies, and from non-profit institutions, which may result in others discovering, developing or commercializing products before or more successfully than we do.

Drug development is highly competitive and subject to rapid and significant technological advancements. There are several large and small pharmaceutical companies focused on delivering therapeutics for the treatment of non-small cell lung cancer, triple negative breast cancer and other oncology indications we might target in the future. Further, it is likely that additional drugs will become available in the future for the treatment of our target indications.

We face competition from segments of the pharmaceutical, biotechnology and other related markets that pursue the development of immuno-oncology therapies for the treatment of solid tumor cancers, including Akeso Therapeutics, ALX Oncology, Arcus Therapeutics, AstraZeneca plc, Beigene, BioAtla, BioNTech, Biotheus, Bristol Myers, Cullinan Therapeutics, Cytomx, Genentech/Roche, Gilead Sciences, GlaxoSmithKline, iTeos Therapeutics, Merck, Novartis, Regeneron, Sanofi, Shattuck Labs, Summit Therapeutics, Werewolf Therapeutics.

Several pharmaceutical and biotechnology companies have established themselves in the market for the treatment of non-small cell lung cancer (“NSCLC”), and several additional companies are developing products for the treatment of NSCLC. Currently, the most commonly used treatments for NSCLC are several immuno-oncology drugs and chemotherapies, administered either as monotherapy or in combination with other approved therapeutics. NSCLC treatment regimens vary due to several factors, including genetic mutations and progression of disease. Several medications have been approved by FDA for these treatments, including, but not limited to pembrolizumab, atezolizumab, nivolumab, durvalumab and ipilimumab. There are anti-angiogenic therapies which are approved for the treatment of certain lung cancers, including bevacizumab and ramucirumab. In addition, there are several targeted therapies that have also been approved, including, but not limited to, osimertinib, adagrasib, and alectinib. Beyond currently approved therapies, several potential therapeutics are in various stages of development and clinical trials for the treatment of NSCLC, including late-stage candidates which have recently released Phase III clinical trial data in NSCLC in 2023, such as Daiichi Sankyo and AstraZeneca’s datopotamab deruxetecan and Johnson & Johnson’s amivantamab and lazertinib. Finally, there are candidates in various stages of ongoing clinical trials for

NSCLC, including Daiichi Sankyo and Merck with patritumab deruxtecan and AstraZeneca's volrustomig, each currently enrolling in Phase III clinical trials.

Universities and public and private research institutions in the United States and Europe are also potential competitors. While these universities and public and private research institutions primarily have educational objectives, they may develop proprietary technologies that lead to FDA-approved therapies or secure patent protection that we may need for the development of our technologies and product candidates.

Many of our existing or potential competitors have substantially greater financial, technical and human resources than we do and significantly greater experience in the discovery and development of product candidates, as well as in obtaining regulatory approvals of those product candidates in the United States and in foreign countries. Our current and potential future competitors may also have significantly more experience commercializing drugs, particularly antibody-based therapeutics and other biological products, that have been approved for marketing. Mergers and acquisitions in the pharmaceutical and biotechnology industries could result in even more resources being concentrated among a small number of our competitors.

We will face competition from other drugs or from other non-drug products currently approved or that will be approved in the future in the oncology field, including for the treatment of diseases and disorders in the therapeutic categories we intend to target. Therefore, our ability to compete successfully will depend largely on our ability to:

- develop and commercialize drugs that are superior to other products in the market;
- demonstrate through our clinical trials that our product candidates are differentiated from existing and future therapies;
- attract qualified scientific, product development and commercial personnel;
- obtain patent or other proprietary protection for our medicines;
- obtain required regulatory approvals;
- obtain coverage and adequate reimbursement from, and negotiate competitive pricing with, third-party payors; and
- successfully collaborate with pharmaceutical companies and/or non-profit institutions in the discovery, development and commercialization of new medicines.

The availability of our competitors' products could limit the demand, and the price we are able to charge, for any product candidate we develop. The inability to compete with existing or subsequently introduced drugs would have an adverse impact on our business, financial condition and prospects. In addition, the reimbursement structure of approved cell therapies by other companies could impact the anticipated reimbursement structure of our cell therapies, if approved, and our business, financial condition, results of operations and prospects.

Established pharmaceutical companies may invest heavily to accelerate discovery and development of novel compounds or to in-license novel compounds that could make our product candidates less competitive. In addition, any new product that competes with an approved product must demonstrate compelling advantages in efficacy, convenience, tolerability and safety in order to overcome price competition and to be commercially successful. Accordingly, our competitors may succeed in obtaining patent protection, discovering, developing, receiving regulatory and marketing approval for, or commercializing, drugs before we do, which would have an adverse impact on our business and results of operations.

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

If we are successful in achieving regulatory approval to commercialize any biologic product candidate that we develop, it may face competition from biosimilar products. In the United States, our product candidates are regulated by the FDA as biologic products subject to approval under the BLA pathway. The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the ACA, includes a subtitle called the Biologics Price Competition and Innovation Act of 2009, or BPCIA, which created an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until

four years following the date that the reference product was first licensed by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first licensed by the FDA. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing product containing the sponsor's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of their product. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation and meaning are subject to uncertainty. While it is uncertain when such processes intended to implement BPCIA may be fully adopted by the FDA, any such processes could have an adverse effect on the future commercial prospects for our biological products.

There is a risk that any of our product candidates approved as a biological product under a BLA would not qualify for the 12-year period of exclusivity or that this exclusivity could be shortened due to congressional action or otherwise, or that the FDA will not consider our product candidates to be reference products for competing products, potentially creating the opportunity for generic competition sooner than anticipated. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of recent litigation. Moreover, the extent to which a biosimilar, once approved, will be substituted for any one of our reference products 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 competitors are able to obtain marketing approval for biosimilars referencing our candidates, if approved, our products may become subject to competition from such biosimilars, with the attendant competitive pressure and potential adverse consequences.

The success of our product candidates will depend significantly on coverage and adequate reimbursement or the willingness of patients to pay for these therapies.

We believe our success depends on obtaining and maintaining coverage and adequate reimbursement for our product candidates and the extent to which patients will be willing to pay out-of-pocket for such products, in the absence of reimbursement for all or part of the cost. In the United States and in other countries, patients who are provided medical treatment for their conditions generally rely on third-party payors to reimburse all or part of the costs associated with their treatment. The availability of coverage and adequacy of reimbursement for our products by third-party payors, including government health care programs (e.g., Medicare, Medicaid, TRICARE), managed care providers, private health insurers, health maintenance organizations, and other organizations is essential for most patients to be able to afford medical services and pharmaceutical products such as our product candidates. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own coverage and reimbursement policies. However, decisions regarding the extent of coverage and amount of reimbursement to be provided are made on a payor-by-payor basis. One payor's determination to provide coverage for a drug product does not assure that other payors will also provide coverage, and adequate reimbursement. The principal decisions about reimbursement for new medicines are typically made by the Centers for Medicare & Medicaid Services, or CMS, an agency within the U.S. Department of Health and Human Services, or HHS. CMS decides whether and to what extent products will be covered and reimbursed under Medicare and private payors tend to follow CMS to a substantial degree.

Third-party payors determine which products and procedures they will cover and establish reimbursement levels. Even if a third-party payor covers a particular product or procedure, the resulting reimbursement payment rates may not be adequate. Patients who are treated in-office for a medical condition generally rely on third-party payors to reimburse all or part of the costs associated with the procedure, including costs associated with products used during the procedure, and may be unwilling to undergo such procedures in the absence of such coverage and adequate reimbursement. Physicians may be unlikely to offer procedures for such treatment if they are not covered by insurance and may be unlikely to purchase and use our product candidates, if approved, for our stated indications unless coverage is provided and reimbursement is adequate. In addition, for products administered under the supervision of a physician, obtaining coverage and adequate reimbursement may be particularly difficult because of the higher prices often associated with such drugs.

Reimbursement by a third-party payor may depend upon a number of factors, including the third-party payor's determination that a procedure is safe, effective and medically necessary; appropriate for the specific patient; cost-effective; supported by peer-reviewed medical journals; included in clinical practice guidelines; and neither

cosmetic, experimental, nor investigational. Further, increasing efforts by third-party payors in the United States and abroad to cap or reduce healthcare costs may cause such organizations to limit both coverage and the level of reimbursement for newly approved products and, as a result, they may not cover or provide adequate payment for our product candidates. In order to secure coverage and reimbursement for any product that might be approved for sale, we may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of our products, in addition to the costs required to obtain FDA or comparable regulatory approvals. Additionally, we may also need to provide discounts to purchasers, private health plans or government healthcare programs. Our product candidates may nonetheless not be considered medically necessary or cost-effective. If third-party payors do not consider a product to be cost-effective compared to other available therapies, they may not cover the product after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow a company to sell its products at a profit. We expect to experience pricing pressures from third-party payors in connection with the potential sale of any of our product candidates. Decreases in third-party reimbursement for any product or a decision by a third-party payor not to cover a product could reduce physician usage and patient demand for the product and also have a material adverse effect on sales.

Foreign governments also have their own healthcare reimbursement systems, which vary significantly by country and region, and we cannot be sure that coverage and adequate reimbursement will be made available with respect to the treatments in which our products are used under any foreign reimbursement system.

There can be no assurance that our product candidates, if approved for sale in the United States or in other countries, will be considered medically reasonable and necessary, that it will be considered cost-effective by third-party payors, that coverage or an adequate level of reimbursement will be available or that reimbursement policies and practices in the United States and in foreign countries where our products are sold will not adversely affect our ability to sell our product candidates profitably, if they are approved for sale.

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

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

- decreased demand for any product candidates or drugs that we may develop;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- significant costs to defend the related litigation;
- substantial monetary awards paid to trial participants or patients;
- loss of revenue;
- reduced resources of our management to pursue our business strategy; and
- the inability to commercialize any products that we may develop.

Although we maintain product liability insurance coverage, such insurance may not be adequate to cover all liabilities that we may incur. We may need to increase our insurance coverage as we expand our clinical trials or if we commence commercialization of our product candidates. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise.

Our business and operations would suffer in the event we, or the third parties upon which we rely, suffer computer system failures, cyberattacks or a deficiency in our or such third parties' cybersecurity.

In the ordinary course of our business, we and the third parties upon which we rely may collect, receive, store, process, generate, use, transfer, disclose, make accessible, protect, secure, dispose of, transmit and share (collectively, process) proprietary, confidential and sensitive data, including personal data (such as health-related data), data we collect about trial participants in connection with clinical trials, intellectual property sensitive third-

party data and trade secrets (collectively, sensitive information). Cyber-attacks, malicious internet-based activity, online and offline fraud and other similar activities threaten the confidentiality, integrity and availability of our sensitive information and information technology systems and those of the third parties upon which we rely. Such threats are prevalent and continue to rise, are increasingly difficult to detect and come from a variety of sources, including traditional computer “hackers,” threat actors, “hacktivists,” organized criminal threat actors, personnel (such as through theft or misuse), sophisticated nation states and nation-state-supported actors.

Some actors now engage and are expected to continue to engage in cyber-attacks, including without limitation nation-state actors for geopolitical reasons and in conjunction with military conflicts and defense activities. During times of war and other major conflicts, we, and the third parties upon which we rely, may be vulnerable to a heightened risk of these attacks, including retaliatory cyber-attacks, that could materially disrupt our systems and operations, supply chain and ability to produce, sell and distribute our goods and services. We and the third parties upon which we rely may be subject to a variety of evolving threats, including but not limited to social-engineering attacks (including through deep fakes, which may be increasingly difficult to identify as fake, and phishing attacks), malicious code (such as viruses and worms), malware (including as a result of advanced persistent threat intrusions), denial-of-service attacks (such as credential stuffing), credential harvesting, personnel misconduct or error, ransomware attacks, supply-chain attacks, software bugs, server malfunctions, software or hardware failures, loss of data or other information technology assets, adware, telecommunications failures and other similar threats. In particular, severe ransomware attacks are becoming increasingly prevalent and can lead to significant interruptions in our operations, loss of sensitive data and income, reputational harm and diversion of funds. Extortion payments may alleviate the negative impact of a ransomware attack, but we may be unwilling or unable to make such payments due to, for example, applicable laws or regulations prohibiting such payments. Future or past business transactions (such as acquisitions or integrations) could expose us to additional cybersecurity risks and vulnerabilities, as our systems could be negatively affected by vulnerabilities present in acquired or integrated entities’ systems and technologies. Furthermore, we may discover security issues that were not found during due diligence of such acquired or integrated entities, and it may be difficult to integrate companies into our information technology environment and security program.

We rely on third-party service providers and technologies to operate critical business systems to process sensitive information in a variety of contexts, including, without limitation, encryption and authentication technology, employee email and other functions. We also rely on third-party service providers to provide other products, services or otherwise to operate our business. Our ability to monitor these third parties’ information security practices is limited, and these third parties may not have adequate information security measures in place. If our third-party service providers experience a security incident or other interruption, we could experience adverse consequences. While we may be entitled to damages if our third-party service providers fail to satisfy their privacy or security-related obligations to us, any award may be insufficient to cover our damages, or we may be unable to recover such award. In addition, supply-chain attacks have increased in frequency and severity, and we cannot guarantee that third parties’ infrastructure in our supply chain or our third-party partners’ supply chains have not been or will not be compromised.

Any of the previously identified or similar threats could cause a security incident or other interruption that could result in unauthorized, unlawful, or accidental acquisition, modification, destruction, loss, alteration, encryption, disclosure of, or access to our sensitive information or our information technology systems, or those of the third parties upon whom we rely. A security incident or other interruption could disrupt our ability (and that of third parties upon whom we rely) to provide our services. We may expend significant resources or modify our business activities (including our clinical trial activities) to try to protect against security incidents. Certain data privacy and security obligations may require us to implement and maintain specific security measures or industry-standard or reasonable security measures to protect our information technology systems and sensitive information.

While we have implemented security measures designed to protect against security incidents, there can be no assurance that these measures will be effective. We take steps to detect and remediate vulnerabilities, but we may not be able to detect and remediate all vulnerabilities because the threats and techniques used to exploit the vulnerability change frequently and are often sophisticated in nature. Therefore, such vulnerabilities could be exploited but may not be detected until after a security incident has occurred. These vulnerabilities pose material

risks to our business. Further, we may experience delays in developing and deploying remedial measures designed to address any such identified vulnerabilities.

Applicable data privacy and security obligations may require us to notify relevant stakeholders of security incidents. Such disclosures are costly, and the disclosure or the failure to comply with such requirements could lead to adverse consequences. If we, or a third party upon which we rely, experience a security incident or are perceived to have experienced a security incident, we may experience adverse consequences. These consequences may include government enforcement actions (for example, investigations, fines, penalties, audits and inspections), additional reporting requirements and/or oversight, restrictions on processing sensitive information (including personal data), litigation (including class claims), indemnification obligations, negative publicity, reputational harm, monetary fund diversions, interruptions in our operations (including availability of data), financial loss and other similar harms.

Our contracts may not contain limitations of liability, and even where they do, there can be no assurance that limitations of liability in our contracts are sufficient to protect us from liabilities, damages or claims related to our data privacy and security obligations. We cannot be sure that our insurance coverage will be adequate or sufficient to protect us from or to mitigate liabilities arising out of our privacy and security practices, that such coverage will continue to be available on commercially reasonable terms or at all or that such coverage will pay future claims.

We are subject to a variety of stringent and evolving U.S. and foreign laws, regulations, rules, contractual obligations, policies and other obligations related to data privacy and data security, and our actual or perceived failure to comply with them could lead to regulatory investigations or actions; litigation; fines and penalties; disruptions of our business operations; reputational harm; loss of revenue or profits and other adverse business consequences.

In the ordinary course of business, we process personal data and other sensitive information. Our data processing activities may subject us to numerous data privacy and security obligations, such as various laws, regulations, guidance, industry standards, external and internal privacy and security policies, contractual requirements and other obligations relating to data privacy and security.

In the United States, federal, state and local governments have enacted numerous data privacy and security laws, including data breach notification laws, personal data privacy laws, consumer protection laws (e.g., Section 5 of the Federal Trade Commission Act) and other similar laws (e.g., wiretapping laws). For example, HIPAA, as amended by HITECH, imposes specific requirements relating to the privacy, security and transmission of individually identifiable health information. In addition, the California Consumer Privacy Act of 2018, or the CCPA, as amended by the California Privacy Rights Act of 2020, or the CPRA, applies to personal data of consumers, business representatives and employees who are California residents and requires businesses to provide specific disclosures in privacy notices and honor requests of such individuals to exercise certain privacy rights. The CCPA provides for administrative fines of up to \$7,500 per violation and allows private litigants affected by certain data breaches to recover significant statutory damages. Although the CCPA exempts some data processed in the context of clinical trials, the CCPA may increase compliance costs and potential liability with respect to other personal data we may maintain about California residents. In addition, the CPRA expanded the CCPA's requirements, including by adding a new right for individuals to correct their personal data and establishing a new regulatory agency to implement and enforce the law. Other states, such as Virginia and Colorado, have also passed comprehensive privacy laws, and similar laws are being considered in several other states, as well as at the federal and local levels. These developments may further complicate compliance efforts and may increase legal risk and compliance costs for us and the third parties upon which we rely.

Outside the United States, an increasing number of laws, regulations, and industry standards may govern data privacy and security. For example, the United Kingdom's General Data Protection Regulation, or UK GDPR, imposes strict requirements for processing personal data. Under the UK GDPR, companies may face temporary or definitive bans on data processing and other corrective actions, fines of up to £17.5 million or 4% of annual global revenue, whichever is greater, or private litigation related to processing of personal data brought by classes of data subjects or consumer protection organizations authorized at law to represent their interests.

In China, the PRC Data Security Law took effect in September 2021. The PRC Data Security Law imposes data security and privacy obligations on entities and individuals carrying out data activities, and introduces a data classification and hierarchical protection system based on the importance of data in economic and social development, and the degree of harm it will cause to national security, public interests, or legitimate rights and interests of individuals or organizations when such data is tampered with, destroyed, leaked, illegally acquired or used. The PRC Data Security Law also provides for a national security review procedure for data activities that may affect national security and imposes export restrictions on certain data and information. In addition, the Personal Information Protection Law came into force in November 2021. The Personal Information Protection Law includes the basic rules for personal information processing, the rules for cross-border provision of personal information, the rights of individuals in personal information processing activities, the obligations of personal information processors, and the legal responsibilities for illegal collection, processing, and use of personal information.

In addition to data privacy and security laws, we may be contractually subject to industry standards adopted by industry groups and may become subject to such obligations in the future.

We may also be bound by contractual obligations related to data privacy and security, and our efforts to comply with such obligations may not be successful. For example, certain privacy laws, such as the UK GDPR and the CCPA, require our customers to impose specific contractual restrictions on their service providers. We may publish privacy policies, marketing materials and other statements regarding data privacy and security. If these policies, materials or statements are found to be deficient, lacking in transparency, deceptive, unfair or misrepresentative of our practices, we may be subject to investigation, enforcement actions by regulators or other adverse consequences.

Obligations related to data privacy and security are quickly changing, becoming increasingly stringent and creating regulatory uncertainty. Additionally, these obligations may be subject to differing applications and interpretations, which may be inconsistent or conflict among jurisdictions. Preparing for and complying with these obligations requires us to devote significant resources. These obligations may necessitate changes to our services, information technologies, systems and practices and to those of any third parties that process personal data on our behalf. We may at times fail, or be perceived to have failed, in our efforts to comply with our data privacy and security obligations. Moreover, despite our efforts, our personnel or third parties on which we rely may fail to comply with such obligations, which could negatively impact our business operations. If we or the third parties on which we rely fail, or are perceived to have failed, to address or comply with applicable data privacy and security obligations, we could face significant consequences, including but not limited to government enforcement actions (e.g., investigations, fines, penalties, audits, inspections, and similar), litigation (including class-action claims) and mass arbitration demands, additional reporting requirements and/or oversight, bans on processing personal data, orders to destroy or not use personal data and imprisonment of company officials. Any of these events could have a material adverse effect on our reputation, business or financial condition, including but not limited to loss of customers, interruptions or stoppages in our business operations including clinical trials, inability to process personal data or to operate in certain jurisdictions, limited ability to develop or commercialize our products, expenditure of time and resources to defend any claim or inquiry, adverse publicity or substantial changes to our business model or operations. In particular, plaintiffs have become increasingly more active in bringing privacy-related claims against companies, including class claims and mass arbitration demands. Some of these claims allow for the recovery of statutory damages on a per violation basis, and, if viable, carry the potential for monumental statutory damages, depending on the volume of data and the number of violations.

If we or any contract manufacturers and suppliers we engage fail to comply with environmental, health, and safety laws and regulations, we could become subject to fines or penalties or incur costs that could seriously harm our business.

We and any contract manufacturers and suppliers we engage are subject to numerous federal, state and local environmental, health, and safety laws, regulations, and permitting requirements, including those governing laboratory procedures; the generation, handling, use, storage, treatment and disposal of hazardous and regulated materials and wastes; the emission and discharge of hazardous materials into the ground, air and water; and employee health and safety. Our operations involve the use of hazardous and flammable materials, including

chemicals and biological materials. Our operations also produce hazardous waste. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. Under certain environmental laws, we could be held responsible for costs relating to any contamination at our current or past facilities and at third-party facilities. We also could incur significant costs associated with civil or criminal fines and penalties.

Compliance with applicable environmental laws and regulations may be expensive, and current or future environmental laws and regulations may impair our research, product development and manufacturing efforts. In addition, we cannot entirely eliminate the risk of accidental injury or contamination from these materials or wastes. 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 hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not carry specific biological or hazardous waste insurance coverage, and our property, casualty, and general liability insurance policies specifically exclude coverage for damages and fines arising from biological or hazardous waste exposure or contamination. Accordingly, in the event of contamination or injury, we could be held liable for damages or be penalized with fines in an amount exceeding our resources, and our clinical trials or regulatory approvals could be suspended, which could seriously harm our business.

Risks Related to Our Dependence on Third Parties

We rely on third parties to conduct our clinical trials, and those third parties may not perform satisfactorily, including failing to meet established deadlines for the completion of such clinical trials.

Our reliance on third parties for clinical development activities reduces our control over these activities. However, if we sponsor clinical trials, we are responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the trials. Moreover, the FDA requires us to comply with requirements, commonly referred to as good clinical practices, for conducting, recording, and reporting the results of clinical trials to ensure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. Our reliance on third parties does not relieve us of these responsibilities and requirements. Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may be delayed in obtaining regulatory approvals for our product candidates and may be delayed in our efforts to successfully commercialize our product candidates for targeted diseases.

In addition, IITs, which are scientific research that is initiated, sponsored, and conducted by an independent investigator(s) and/or institution(s) not affiliated with us, are being, and additional IITs, may be conducted involving potential product candidates, including the potential IIT in China. The investigator, sponsor, and/or investigator/sponsor remains responsible for conception, design, data analysis, publication, and compliance with applicable law. IITs can contribute towards enhancing the understanding of products (such as mechanism of action) and sparking new ideas for further research; however, IITs are generally not supported by pharmaceutical companies for the purposes of generating data that can lead to product labelling changes. Even if an IIT has positive results, additional studies, along with regulatory agency guidance and approval, would be required to advance a pharmaceutical product to the next stage of development and new potential labelling changes or indications. If we are unable to confirm or replicate the results from an IIT or if negative results are obtained, we would likely be further delayed or prevented from advancing further clinical development. Further, if the data proves to be inadequate compared to the firsthand knowledge we might have gained had the IIT been sponsored and conducted by us, then our ability to design and conduct any future clinical trials ourselves may be adversely affected. Negative results in IITs could have a material adverse effect on our efforts to obtain regulatory approval for such product candidates and the public perception of such product candidates. In addition, third parties that are investigating product candidates which have not been provided by us may seek and obtain regulatory approval of product candidates before we do, which may adversely affect our development strategy and eligibility for certain exclusivities for which we may otherwise be eligible.

We intend to rely on third parties to conduct, supervise and monitor a significant portion of our research and preclinical testing and clinical trials for our product candidates, and if those third parties do not

successfully carry out their contractual duties, comply with regulatory requirements or otherwise perform satisfactorily, we may not be able to obtain regulatory approval or commercialize product candidates, or such approval or commercialization may be delayed, and our business may be substantially harmed.

We do not have a clinical operations team and intend to engage CROs and other third parties to conduct our planned preclinical studies or clinical trials and to monitor and manage data. We expect to rely on third parties, including clinical data management organizations, medical institutions and clinical investigators, to conduct those clinical trials. If any of our relationships with these third parties terminate, we may not be able to timely enter into arrangements with alternative third parties or to do so on commercially reasonable terms, if at all. Switching or adding CROs involves substantial cost and requires management time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines. Though we intend to carefully manage our relationships with our CROs, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects. Further, the performance of our CROs and other third parties conducting our trials may also be interrupted by public health emergencies.

In addition, any third parties conducting our clinical trials will not be our employees, and except for remedies available to us under our agreements with such third parties, we cannot control whether or not they devote sufficient time and resources to our clinical programs. If these third parties do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. Consequently, our results of operations and the commercial prospects for our product candidates would be harmed, our costs could increase substantially and our ability to generate revenue could be delayed significantly.

We will rely on these parties for execution of our preclinical studies and clinical trials, and generally will not control their activities. Our reliance on these third parties for research and development activities will reduce our control over these activities but will not relieve us of our responsibilities. For example, we will remain responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. Moreover, the FDA requires us to comply with standards, commonly referred to as good clinical practices, or GCPs, for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. If we or any of our CROs or other third parties, including trial sites, fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA, MHRA, EMA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials complies with GCP regulations. In addition, our clinical trials must be conducted with product produced under cGMP conditions. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process.

We also are required to register certain ongoing clinical trials and post the results of certain completed clinical trials on a government-sponsored database, ClinicalTrials.gov, within specified timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

In addition, principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and receive compensation in connection with such services. Under certain circumstances, we may be required to report some of these relationships to the FDA. The FDA may conclude that a financial relationship between us and a principal investigator has created a conflict of interest or otherwise affected interpretation of the trial. The FDA may therefore question the integrity of the data generated at the applicable clinical trial site and the utility of the clinical trial itself may be jeopardized. This could result in a delay in approval, or rejection, of our marketing applications by the FDA and may ultimately lead to the denial of marketing approval our product candidates.

We also expect to rely on other third parties to store and distribute product supplies for our clinical trials. Any performance failure on the part of our distributors could delay clinical development or marketing approval of our product candidates or commercialization of our products, producing additional losses and depriving us of potential revenue.

We may seek collaborations with third parties for the development or commercialization of our product candidates. If those collaborations are not successful, we may not be able to capitalize on the market potential of these product candidates.

We currently have two collaborations, both with collaborators based in China. We may seek additional collaboration arrangements with pharmaceutical or biotechnology companies for the development or commercialization of our product candidates, including for the commercialization of any of our product candidates that are approved for marketing outside the United States. We will face, to the extent that we decide to enter into additional collaboration agreements, significant competition in seeking appropriate collaborators. Moreover, collaboration arrangements are complex and time-consuming to negotiate, document, implement and maintain. We may not be successful in our efforts to establish and implement collaborations or other arrangements should we so chose to enter into such arrangements. The terms of any collaborations or other arrangements that we have or may establish may not be favorable to us, and we will likely have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our product candidates. Our ability to generate revenue from these arrangements will depend on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements.

Collaborations involving our product candidates would pose the following risks to us:

- collaborators have significant discretion in determining the efforts and resources that they will apply to collaborations;
- collaborators may not perform their obligations as expected;
- 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 clinical trial results, changes in the collaborators' strategic focus or available funding, or other external factors, such as an acquisition, or business combination, that diverts resources or creates competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial, 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;
- we could grant exclusive rights to our collaborators that would prevent us from collaborating with others;
- our collaborators could be our competitors and product candidates discovered in collaboration with us may be viewed by our collaborators as competitive with their own product candidates or drugs, which may cause collaborators to cease to devote resources to the commercialization of our product candidates;
- a collaborator with marketing, manufacturing and distribution rights to one or more of our product candidates that achieve regulatory approval may not commit sufficient resources to the marketing and distribution of such products;
- disagreements with collaborators, including disagreements over proprietary rights, contract interpretation or the preferred course of development, might cause delays or termination of the research, development or commercialization of product candidates, might lead to additional responsibilities for us with respect to product candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;

- collaborators may not properly maintain or defend our or their intellectual property rights or may use our or their proprietary information in such a way that gives rise to actual or threatened litigation that could jeopardize or invalidate such intellectual property or proprietary information or expose us to potential liability;
- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;
- collaborators may own or co-own intellectual property covering our products that results from our collaborating with them, and in such cases, we would not have the exclusive right to develop or commercialize such intellectual property;
- a collaborator's sales and marketing activities or other operations may not be in compliance with applicable laws resulting in civil or criminal proceedings;
- disputes may arise between us and a collaborator that causes the delay or termination of the research, development or commercialization of our current or future products or that results in costly litigation or arbitration that diverts management attention and resources;
- collaborations may be terminated, and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable current or future products; and
- collaborations may be terminated for the convenience of the collaborator and, if terminated, we could be required to raise additional capital to pursue further development or commercialization of the applicable product candidates.

Collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner or at all. If any future 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.

We face significant competition in seeking appropriate collaborators. Whether we reach a definitive agreement for any collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA, MHRA, EMA 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. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our product candidate. Collaborations are complex and time-consuming to negotiate and document. 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 collaborators.

We may not be able to negotiate additional collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of such product candidate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to market and generate revenue.

Risks Related to our Intellectual Property

We depend on our relationship with, and the comprehensiveness of the intellectual property licensed from, ImmuneOnco, and termination of the IO Collaboration Agreement, or issues related to intellectual property could have a material adverse effect on our business.

We depend on the know-how and other intellectual property licensed from ImmuneOnco through the IO Collaboration Agreement for the development and, if approved, commercialization of our lead product candidate, SYN-2510. If the agreement is terminated, or found to be unenforceable, it could result in the loss of significant rights and could harm our ability to commercialize SYN-2510. The IO Collaboration Agreement imposes certain obligations on us, including obligations to use diligent efforts to meet development thresholds, funding requirements, payment obligations, and commercialization. If we are unable to meet our obligations, some or all of our rights under the IO Collaboration Agreement may be restricted or terminated. For example, the IO Collaboration Agreement is revocable in certain circumstances, including in the event we do not achieve certain payment deadlines. Without the patents under this agreement, we will not be able to continue to develop SYN-2510 or SYN-27M.

The IO Collaboration Agreement may be terminated by ImmuneOnco in the event of a material breach by SynBioTx or if SynBioTx defaults in the performance of any of our material obligations under the agreement, and such default continues for 90 days, or with respect to any breach of any undisputed payment obligations, for 60 days. Additionally, our ability to realize the full potential of the IO Collaboration Agreement may be severely limited by factors involving intellectual property rights including:

- whether and to what extent our technology and processes infringe on intellectual property rights of other third parties that are not subject to the IO Collaboration Agreement;
- whether third parties are entitled to compensation or equitable relief, such as an injunction, for our use of intellectual property without their authorization;
- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- our compliance with our obligations with respect to the use of the licensed technology in relation to our development and commercialization of product candidates;
- ownership of specific intellectual property; and
- the impact on payments and costs associated with commercialization if there is blocking intellectual property in or costs associated with prosecution, maintenance and enforcement under the IO Collaboration Agreement

These issues, if they arise, could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, increase what we believe to be our financial or other obligations under the relevant agreement, or increase our costs to develop, manufacture and commercialize products under the IO Collaboration Agreement.

If we or our licensors are unable to obtain and maintain sufficient patent protection for our product candidates, or if the scope of the patent protection is not sufficiently broad, third parties, including our competitors, could develop and commercialize products similar or identical to ours, and our ability to commercialize our product candidates may be adversely affected.

Our success depends in large part on our ability to obtain and maintain patent and other intellectual property protection in the United States and in other countries with respect to our product candidates.

The strength of patents in the biotechnology and pharmaceutical field involves complex legal and scientific questions and can be uncertain. We cannot offer any assurances about which of our patent applications will issue, the breadth of any resulting patent or whether any of the issued patents will be found invalid and unenforceable or will be threatened by third parties. We cannot offer any assurances that the breadth of our resulting or granted patents will be sufficient to stop a competitor from developing and commercializing a product, including a biosimilar product, that would be competitive with one or more of our product candidates. There is no assurance that all the potentially relevant prior art relating to our patent and patent applications has been found, which can invalidate a patent or prevent a patent from issuing from a pending patent application. Since patent applications in the United States and most other countries are confidential for a period of time after filing, we cannot be certain that we or our future licensors were the first to file any patent application related to our product candidates and

technologies. Additionally, a derivation proceeding before the United States Patent and Trademark Office can be initiated by a third party to contest inventorship of the subject matter claimed in our applications.

Furthermore, any successful challenge to these patents or any other patents owned by or licensed to us after patent issuance could deprive us of rights necessary for the successful commercialization of any of our product candidates and technologies that we may develop. Even if they are unchallenged or such third-party challenges are unsuccessful, our patent and patent applications may not adequately protect our intellectual property, provide exclusivity for our product candidates and technologies, or prevent others from designing around our claims. If the breadth or strength of protection provided by the patent and patent applications we hold, obtain or pursue with respect to our product candidates and technologies is challenged, or if they fail to provide meaningful exclusivity for our product candidates and technologies, it could threaten our ability to commercialize our product candidates and technologies. Further, if we encounter delays in regulatory approvals, the period of time during which we could market a product candidate under patent protection, if approved, would be reduced.

The patent prosecution process is expensive and time-consuming. We may not be able to prepare, file and prosecute all necessary or desirable patent applications at a commercially reasonable cost, in a timely manner, or in all jurisdictions. It is also possible that we may fail to identify patentable aspects of inventions made in the course of development and commercialization activities before it is too late to obtain patent protection. Moreover, depending on the terms of any future in-licenses to which we may become a party, we may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology in-licensed from third parties. Therefore, these patents and patent applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. In addition to the protection provided by our patent estate, we rely on trade secret protection and confidentiality agreements to protect proprietary scientific, business and technical information and know-how that is not or may not be patentable or that we elect not to patent. We seek to protect our proprietary information, data and processes, in part, by confidentiality agreements and invention assignment agreements with our employees, consultants, scientific advisors, contractors and partners. Although these agreements are designed to protect our proprietary information, we cannot be certain that our trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Although we generally require all of our employees to assign their inventions to us, and all of our employees, consultants, advisors and any third parties who have access to our proprietary know-how, information, or technology to enter into confidentiality agreements, we cannot provide any assurances that all such agreements have been duly executed with all third parties who may have helped to develop our intellectual property or who had access to our proprietary information, or that our agreements will not be breached. If any of the parties to these confidentiality agreements breaches or violates the terms of such agreements, we may not have adequate remedies for any such breach or violation, and we could lose our trade secrets as a result.

Enforcing a claim that a third party illegally obtained and is using our trade secrets, like patent litigation, is expensive and time-consuming, and the outcome is unpredictable. Further, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. The enforceability of confidentiality agreements may vary from jurisdiction to jurisdiction. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. Additionally, if the steps taken to maintain our trade secrets are deemed inadequate, we may have insufficient recourse against third parties for misappropriating the trade secret. We cannot guarantee that our employees, former employees or consultants will not file patent applications claiming our inventions. Because of the “first-to-file” laws in the United States and the uncertainties surrounding outcomes of derivation proceedings before the United States Patent and Trademark Office, such unauthorized patent application filings may defeat our attempts to obtain patents on our own inventions.

Trade secrets and know-how can be difficult to protect as trade secrets and know-how will over time be disseminated within the industry through independent development, the publication of journal articles, and the movement of personnel skilled in the art from company to company or academic to industry scientific positions. Moreover, our competitors may independently develop knowledge, methods and know-how equivalent to our trade secrets. Competitors could purchase our products and attempt to replicate some or all of the competitive advantages

we derive from our development efforts, willfully infringe our intellectual property rights, design around our protected technology or develop their own technologies that fall outside of our intellectual property rights. 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, or those to whom they communicate it, from using that technology or information to compete with us. If any of our trade secrets and proprietary know-how were to be disclosed to or independently developed by a competitor, our competitive position would be harmed.

We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems. Monitoring unauthorized uses and disclosures is difficult, and we do not know whether the steps we have taken to protect our proprietary technologies will be effective.

While we have confidence in these individuals, organizations and systems, our agreements or security measures may be breached, and we may not have adequate remedies for any breach. Also, if the steps taken to maintain our trade secrets are deemed inadequate, we may have insufficient recourse against third parties for misappropriating the trade secret. In addition, others may independently discover our trade secrets and proprietary information. If we are unable to prevent material disclosure of the non-patented intellectual property related to our technologies to third parties, and there is no guarantee that we will have any such enforceable trade secret protection, we may not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, results of operations and financial condition.

Patent terms may be inadequate to protect our competitive position on our products for an adequate amount of time, and if we do not obtain protection under the Hatch-Waxman Amendments and similar non-United States legislation for extending the term of patents covering each of our product candidates, our business may be materially harmed.

Patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after its first effective filing date. Although various extensions may be available, 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 for a product, we may be open to competition from generic medications. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates may expire before or shortly after such candidates are commercialized. Depending upon the timing, duration and conditions of 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. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval. Only one patent may be extended, and only those claims covering the approved drug, a method for using it, or a method for manufacturing it may be extended. However, we may not receive an extension if we 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. 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 that product 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 and could have a material adverse effect on our business.

If we fail to comply with our obligations imposed by any intellectual property licenses with third parties that we may need in the future, we could lose rights that are important to our business.

We may in the future require licenses to additional third-party technology and materials. Such licenses may not be available in the future or may not be available on commercially reasonable terms, or at all, which could have a material adverse effect on our business and financial condition. Even if we acquire the right to control the prosecution, maintenance and enforcement of the licensed and sublicensed intellectual property relating to our product candidates, we may require the cooperation of our licensors and any upstream licensor, which may not be

forthcoming. Therefore, we cannot be certain that the prosecution, maintenance and enforcement of these patent rights will be in a manner consistent with the best interests of our business. If we or our licensor fail to maintain such patents, or if we or our licensor lose rights to those patents or patent applications, the rights we have licensed may be reduced or eliminated and our right to develop and commercialize any of our product candidates that are the subject of such licensed rights could be adversely affected. In addition to the foregoing, the risks associated with patent rights that we license from third parties will also apply to patent rights we may own in the future. Further, if we fail to comply with our development obligations under our license agreements, we may lose our patent rights with respect to such agreement, which would affect our patent rights worldwide.

Termination of any future license agreements would reduce or eliminate our rights under these agreements and may result in our having to negotiate new or reinstated agreements with less favorable terms or cause us to lose our rights under these agreements, including our rights to important intellectual property or technology. Any of the foregoing could prevent us from commercializing our other product candidates, which could have a material adverse effect on our operating results and overall financial condition.

In addition, intellectual property rights that we in-license in the future may be sublicenses under intellectual property owned by third parties, in some cases through multiple tiers. The actions of our licensors may therefore affect our rights to use our sublicensed intellectual property, even if we are in compliance with all of the obligations under our license agreements. Should our licensors or any of the upstream licensors fail to comply with their obligations under the agreements pursuant to which they obtain the rights that are sublicensed to us, or should such agreements be terminated or amended, our ability to develop and commercialize our product candidates may be materially harmed.

Patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our future patents.

Our ability to obtain patents is highly uncertain because, to date, some legal principles remain unresolved, and there has not been a consistent policy regarding the breadth or interpretation of claims allowed in patents in the United States. Furthermore, the specific content of patents and patent applications that are necessary to support and interpret patent claims is highly uncertain due to the complex nature of the relevant legal, scientific, and factual issues. Changes in either patent laws or interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property or narrow the scope of our patent protection.

For example, on September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law. The Leahy-Smith Act included a number of significant changes to U.S. patent law. These included provisions that affect the way patent applications will be prosecuted and may also affect patent litigation. The USPTO has developed new and untested regulations and procedures to govern the full implementation of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first to file provisions, became effective in March 2013. The Leahy-Smith Act has also introduced procedures making it easier for third parties to challenge issued patents, as well as to intervene in the prosecution of patent applications. Finally, the Leahy-Smith Act contained new statutory provisions that require the USPTO to issue new regulations for their implementation, and it may take the courts years to interpret the provisions of the new statute. It is too early to tell what, if any, impact the Leahy-Smith Act will have on the operation of our business and the protection and enforcement of our intellectual property. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our future patents. Further, the United States Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. 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 actions by the United States Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce patents that we have owned or licensed or that we might obtain in the future. An inability to obtain, enforce, and defend patents covering our proprietary technologies would materially and adversely affect our business prospects and financial condition.

Similarly, changes in patent laws and regulations in other countries or jurisdictions, changes in the governmental bodies that enforce them or changes in how the relevant governmental authority enforces patent laws or regulations may weaken our ability to obtain new patents or to enforce patents that we may obtain in the future. As an example, some European patent applications will 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, or UPC. The option of a Unitary Patent is 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 in the UPC. Further, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. For example, if the issuance in a given country of a patent covering an invention is not followed by the issuance in other countries of patents covering the same invention, or if any judicial interpretation of the validity, enforceability or scope of the claims or the written description or enablement, in a patent issued in one country is not similar to the interpretation given to the corresponding patent issued in another country, our ability to protect our intellectual property in those countries may be limited. Changes in either patent laws or in interpretations of patent laws in the United States and other countries may materially diminish the value of our intellectual property or narrow the scope of our patent protection.

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

Competitors may infringe our issued patents or any patents issued as a result of our pending or future patent applications. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours is not valid or is unenforceable, or may refuse to stop the other party in such infringement proceeding from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated, held unenforceable or interpreted narrowly, and could put any of our patent applications at risk of not yielding an issued patent.

If we initiate legal proceedings against a third party to enforce a patent covering one of our product candidates, the defendant could counterclaim that the patent covering our product or product candidate is invalid and/or unenforceable. In patent litigation in the United States, counterclaims alleging invalidity and/or unenforceability are common, and there are numerous grounds upon which a third party can assert invalidity or unenforceability of a patent. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the PTO, or made a misleading statement, during prosecution. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, post grant review, inter partes review and equivalent proceedings in foreign jurisdictions (for example, opposition proceedings, nullity proceedings or litigation or invalidation trials or invalidation proceedings). Such proceedings could result in revocation of or amendment to our patents in such a way that they no longer cover our product candidates. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity of our patents, for example, we cannot be certain that there is no invalidating prior art of which we, our patent counsel, and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our product candidates. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly, could put our patent applications at risk of not issuing and could have a material adverse impact on our business.

Derivation proceedings initiated by third parties or us may be necessary to determine the inventorship (and possibly also ownership) of inventions with respect to our patent applications or resulting patents, or patent applications or resulting patents of third parties. An unfavorable outcome could require us to cease using the related technology or force us to take a license under the patent rights of the prevailing party, if available. Furthermore, our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms. Our

defense of litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distract our management and other employees. We may not be able to prevent misappropriation of our intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States.

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.

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 products.

We cannot guarantee that any of our patent searches or analyses, including the identification of relevant patents, the scope and validity 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 product candidates in any jurisdiction.

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, which may negatively impact our ability to market our products. We may incorrectly determine that our products 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, which may negatively impact our ability to develop and market our product candidates. Our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our products.

We may be unsuccessful in licensing or acquiring intellectual property from third parties that may be required to develop and commercialize our product candidates.

A third party may hold intellectual property, including patent rights that are important or necessary to the development and commercialization of our product candidates. It may be necessary for us to use the patented or proprietary technology of third parties to commercialize our product candidates, in which case we would be required to acquire or obtain a license to such intellectual property from these third parties, and we may be unable to do so on commercially reasonable terms or at all. The licensing or acquisition of third-party intellectual property rights is a competitive area, and several more established companies may pursue strategies to license or acquire third-party intellectual property rights that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, capital resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment or at all. If we are unable to successfully obtain rights to required third-party intellectual property rights or maintain the existing intellectual property rights we have, we may have to abandon development of the relevant program or product candidate, which could have a material adverse effect on our business.

Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain.

Our commercial success depends in part on our ability to develop, manufacture, market and sell our drug candidates and use our proprietary technologies without infringing or otherwise violating the patents and proprietary rights of third parties. As our current and future product candidates progress toward commercialization, the possibility of a patent infringement claim against us increases. There is a substantial amount of litigation involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent

infringement lawsuits, interferences, derivation proceedings, post grant reviews, inter partes reviews, and reexamination proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. Numerous United States and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing product candidates, and there may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our product candidates and technologies. Third parties, including our competitors may initiate legal proceedings against us alleging that we are infringing or otherwise violating their patent or other intellectual property rights.

We cannot provide any assurance that our current and future product candidates do not infringe other parties' patents or other proprietary rights, and competitors or other parties may assert that we infringe their proprietary rights in any event. We may become party to, or threatened with, adversarial proceedings or litigation regarding intellectual property rights with respect to our current and future product candidates, including interference or derivation proceedings before the USPTO. Even if we believe such claims are without merit, a court of competent jurisdiction could hold that these third-party patents are valid, enforceable and infringed, which could have a negative impact on our ability to commercialize our product candidates. In order to successfully challenge the validity of any such U.S. patent in federal court, we would need to overcome a presumption of validity. As this burden is high and requires us to present clear and convincing evidence as to the invalidity of any such U.S. patent claim, there is no assurance that a court of competent jurisdiction would agree with us and invalidate the claims of any such U.S. patent. Moreover, given the vast number of patents in our field of technology, we cannot be certain that we do not infringe existing patents or that we will not infringe patents that may be granted in the future.

While we may decide to initiate proceedings to challenge the validity of these or other patents in the future, we may be unsuccessful, and courts or patent offices in the United States and abroad could uphold the validity of any such patent. Furthermore, because patent applications can take many years to issue and may be confidential for 18 months or more after filing, and because pending patent claims can be revised before issuance, there may be applications now pending which may later result in issued patents that may be infringed by the manufacture, use or sale of our product candidates. Regardless of when filed, we may fail to identify relevant third-party patents or patent applications, or we may incorrectly conclude that a third-party patent is invalid or not infringed by our product candidates or activities. If a patent holder believes that one of our product candidates infringes its patent, the patent holder may sue us even if we have received patent protection for our technology. In addition, third parties may obtain patents in the future and claim that our product candidates or technologies infringe upon these patents. Moreover, we may face patent infringement claims from non-practicing entities that have no relevant drug revenue and against whom our own patent portfolio may thus have no deterrent effect. If a patent infringement suit were threatened or brought against us, we could be forced to stop or delay research, development, manufacturing or sales of the drug or product candidate that is the subject of the actual or threatened suit.

If we are found to infringe a third party's valid intellectual property rights, we could be required to obtain a license from such third party to continue commercializing our product candidates. However, we may not be able to obtain any required license on commercially reasonable terms or 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 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. Alternatively, we may need to redesign our infringing products, which may be impossible or require substantial time and monetary expenditure. Under certain circumstances, we could be forced, including by court orders, to cease commercializing our product candidates. In addition, in any such proceeding or litigation, we could be found liable for substantial monetary damages, potentially including treble damages and attorneys' fees, if we are found to have willfully infringed the patent at issue. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations, which could harm our business. Any claims by third parties that we have misappropriated their confidential information or trade secrets could have a similar negative impact on our business.

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 would 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.

We may be subject to claims that our employees, consultants, or independent contractors have wrongfully used or disclosed confidential information of third parties.

We employ individuals who were previously employed at other biotechnology or biopharmaceutical companies. Although we try to ensure that our employees, consultants and advisors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or our employees, consultants, or independent contractors have inadvertently or otherwise used or disclosed confidential information of our employees' former employers or other third parties. We may also be subject to claims that former employers or other third parties have an ownership interest in our future patents. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. There is no guarantee of success in defending these claims, and even if we are successful, litigation could result in substantial cost and be a distraction to our management and other employees.

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

We may also be subject to claims that former employees, collaborators, or other third parties have an ownership interest in our patent applications, our future patents issued as a result of our pending or future applications, or other intellectual property. We may be subject to ownership disputes in the future arising, for example, from conflicting obligations of consultants or others who are involved in developing our product candidates. Although 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, and we cannot be certain that our agreements with such parties will be upheld in the face of a potential challenge, or that they will not be breached, for which we may not have an adequate remedy. The assignment of intellectual property rights may not be self-executing or the assignment agreements may be breached, and litigation may be necessary to defend against these and other claims challenging inventorship or ownership. 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.

Reliance on third parties requires us to share our trade secrets, which increases the possibility that a competitor will discover them or that our trade secrets will be misappropriated or disclosed.

If we rely on third parties to manufacture or commercialize our product candidates, or if we collaborate with additional third parties for the development of such product candidates, we must, at times, share trade secrets with them. We may also conduct joint research and development programs that may require us to share trade secrets under the terms of our research and development partnerships or similar agreements. We seek to protect our proprietary technology in part by entering into confidentiality agreements and, if applicable, material transfer agreements, consulting agreements or other similar agreements with our advisors, employees, third-party contractors and consultants prior to beginning research or disclosing proprietary information. These agreements typically limit the rights of the third parties to use or disclose our confidential information, including our trade secrets. Despite the contractual provisions employed when working with third parties, the need to share trade secrets and other confidential information increases the risk that such trade secrets become known by our competitors, are inadvertently incorporated into the technology of others, or are disclosed or used in violation of these agreements.

Given that our proprietary position is based, in part, on our know-how and trade secrets, a competitor's discovery of our trade secrets or other unauthorized use or disclosure could have an adverse effect on our business and results of operations.

In addition, these agreements typically restrict the ability of our advisors, employees, third-party contractors and consultants to publish data potentially relating to our trade secrets. Despite our efforts to protect our trade secrets, we may not be able to prevent the unauthorized disclosure or use of our technical know-how or other trade secrets by the parties to these agreements. Moreover, we cannot guarantee that we have entered into such agreements with each party that may have or have had access to our confidential information or proprietary technology and processes. Monitoring unauthorized uses and disclosures is difficult, and we do not know whether the steps we have taken to protect our proprietary technologies will be effective. If any of the collaborators, scientific advisors, employees, contractors and consultants who are parties to these agreements breaches or violates the terms of any of these agreements, we may not have adequate remedies for any such breach or violation, and we could lose our trade secrets as a result. Moreover, if confidential information that is licensed or disclosed to us by our partners, collaborators, or others is inadvertently disclosed or subject to a breach or violation, we may be exposed to liability to the owner of that confidential information. Enforcing a claim that a third party illegally obtained and is using our trade secrets, like patent litigation, is expensive and time-consuming, and the outcome is unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets.

We may enjoy only limited geographical protection with respect to certain patents and we may not be able to protect our intellectual property rights throughout the world.

Filing and prosecuting patent applications and defending patents covering our product candidates in all countries throughout the world would be prohibitively expensive. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection, but enforcement rights are not as strong as that in the United States or Europe. These products may compete with our product candidates, and our future patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

In addition, we may decide to abandon national and regional patent applications before they are granted. The examination of each national or regional patent application is an independent proceeding. As a result, patent applications in the same family may issue as patents in some jurisdictions, such as in the United States, but may issue as patents with claims of different scope or may even be refused in other jurisdictions. It is also quite common that depending on the country, the scope of patent protection may vary for the same product candidate or technology.

While we intend to protect our intellectual property rights in our expected significant markets, we cannot ensure that we will be able to initiate or maintain similar efforts in all jurisdictions in which we may wish to market our product candidates. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate, which may have an adverse effect on our ability to successfully commercialize our product candidates in all of our expected significant foreign markets. If we 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.

The laws of some jurisdictions do not protect intellectual property rights to the same extent as the laws or rules and regulations in the United States and Europe and many companies have encountered significant difficulties in protecting and defending such rights in such jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets, and other intellectual property rights, especially those relating to life sciences, which could make it difficult for us to stop the infringement of our future patents or marketing of competing products in violation of our proprietary rights generally. In addition, many countries limit the enforceability of patents against third parties, including government agencies or government contractors. In these countries, patents may provide limited or no benefit. Moreover, our ability to protect and enforce our intellectual property rights may be adversely affected by unforeseen changes in foreign intellectual property laws.

Proceedings to enforce our patent rights in other jurisdictions, whether or not successful, could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our future patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing as patents, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Furthermore, while we intend to protect our intellectual property rights in our expected significant markets, we cannot ensure that we will be able to initiate or maintain similar efforts in all jurisdictions in which we may wish to market our product candidates. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license from third parties.

Some countries also have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, some countries limit the enforceability of patents against government agencies or government contractors. In those countries, the patent owner may have limited remedies, which could materially diminish the value of such patents. If we are forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment, and other requirements imposed by government 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 government fees on patents and/or applications will be due to be paid to the USPTO and various government patent agencies outside of the United States over the lifetime of our patents and/or applications and any patent rights we may obtain in the future. Furthermore, the USPTO and various non-U.S. government patent agencies require compliance with several procedural, documentary, fee payment and other similar provisions during the patent application process. We employ reputable law firms and other professionals and rely on such third parties to help us comply with these requirements and effect payment of these fees with respect to the patent and patent applications that we own, and if we in-license intellectual property, we may have to rely upon our licensors to comply with these requirements and effect payment of these fees with respect to any patents and patent applications that we license. In many cases, an inadvertent lapse of a patent or patent application can be cured by payment of a late fee or by other means in accordance with the applicable rules. There are situations, however, in which non-compliance can result in abandonment or lapse of the patents or patent applications, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, potential competitors might be able to enter the market, which could have a material adverse effect on our business.

Any trademarks we have obtained or may obtain may be infringed or otherwise violated, or successfully challenged, resulting in harm to our business.

We expect to rely on trademarks as one means to distinguish our product candidates, if approved for marketing, from the drugs of our competitors. Once we select new trademarks and apply to register them, our trademark applications may not be approved. Although we would be given an opportunity to respond to those rejections, we may be unable to overcome such rejections. Third parties may oppose or attempt to cancel our trademark applications or trademarks, or otherwise challenge our use of the trademarks. In the event that our trademarks are successfully challenged, we could be forced to rebrand our drugs, which could result in loss of brand recognition and could require us to devote resources to advertising and marketing new brands. Our competitors may infringe or otherwise violate our trademarks and we may not have adequate resources to enforce our trademarks. Any of the foregoing events may have a material adverse effect on our business. Moreover, any name we propose to use with our product candidates in the United States must be approved by the FDA, regardless of whether we have registered it, or applied to register it, as a trademark. The FDA typically conducts a review of proposed product names, including an evaluation of potential for confusion with other product names. If the FDA objects to any of our proposed proprietary product names, we may be required to expend significant additional resources in an effort to identify a suitable substitute name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA.

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

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect our business or permit us to maintain our competitive advantage. The following examples are illustrative:

- others may be able to make products that are similar to or otherwise competitive with our product candidates but that are not covered by the claims of our current or future patents;
- an in-license necessary for the manufacture, use, sale, offer for sale or importation of one or more of our product candidates may be terminated by the licensor;
- we, our collaborators, or future collaborators might not have been the first to make the inventions covered by our licensed-in, issued or future issued patents or our pending patent applications;
- we, our collaborators, or future collaborators might not have been the first to file patent applications covering certain of our inventions or the inventions we have licensed-in;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- it is possible that our pending patent applications will not lead to issued patents;
- issued patents that we own or in-license may be held invalid or unenforceable as a result of legal challenges by our competitors;
- issued patents that we own or in-license may not provide coverage for all aspects of our product candidates in all countries;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable; and
- the patents of others may have an adverse effect on our business.

Should any of these events occur, they could significantly harm our business, results of operations and prospects.

Risks Related to Legal and Regulatory Compliance Matters

Our relationships with customers, healthcare providers, including physicians, and third-party payors are subject, directly or indirectly, to federal and state healthcare fraud and abuse laws, false claims laws, and other healthcare laws and regulations. If we are unable to comply, or have not fully complied, with such laws, we could face substantial penalties.

Healthcare providers, including physicians, and third-party payors in the United States and elsewhere will play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval. Our current and future arrangements with healthcare professionals, principal investigators, consultants, customers and third-party payors subject us to various federal and state fraud and abuse laws and other healthcare laws, including, without limitation, the federal Anti-Kickback Statute, the federal civil and criminal false claims laws and the law commonly referred to as the Physician Payments Sunshine Act and regulations promulgated under such laws. These laws will impact, among other things, our clinical research, proposed sales, marketing and educational programs, and other interactions with healthcare professionals. In addition, we may be subject to patient privacy laws by both the federal government and the states in which we conduct or may conduct our business. The laws that will affect our operations include, but are not limited to:

- the federal Anti-Kickback Statute, which prohibits, among other things, individuals or entities from knowingly and willfully soliciting, receiving, offering or paying any remuneration (including any kickback, bribe or rebate), directly or indirectly, overtly or covertly, in cash or in kind in return for, or to induce, either the referral of an individual, or the purchase, lease, order or arrangement for or recommendation of the purchase, lease, order or arrangement for any good, facility, item or service for which payment may be made, in whole or in part, under a federal healthcare program, such as the Medicare and Medicaid programs. The term “remuneration” has been broadly interpreted to include anything of value. Although there are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, the exceptions and safe harbors are drawn

narrowly. Practices that involve remuneration that may be alleged to be intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exception or safe harbor. A person does not need to have actual knowledge of this statute or specific intent to violate it in order to have committed a violation;

- the federal civil and criminal false claims laws, including, without limitation, the federal False Claims Act, which can be enforced by private citizens through civil whistleblower or qui tam actions, and civil monetary penalty laws which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment or approval from the federal government, including Medicare, Medicaid and other government payors, that are false or fraudulent or knowingly making, using or causing to be made or used a false record or statement material to a false or fraudulent claim or to avoid, decrease or conceal an obligation to pay money to the federal government. A claim includes “any request or demand” for money or property presented to the U.S. federal government. Several pharmaceutical and other healthcare companies have been prosecuted under these laws for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. Other companies have been prosecuted for causing false claims to be submitted because of the companies’ marketing of products for unapproved, and thus non-reimbursable, uses. In addition, the government may assert that a claim including items or 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 created additional federal criminal statutes which prohibit, among other things, a person from knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- HIPAA, as amended by HITECH, and its implementing regulations, which imposes certain obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information without the appropriate authorization by entities subject to the law, such as health plans, healthcare clearinghouses and healthcare providers and their respective business associates and their covered subcontractors;
- the federal transparency laws, including the federal Physician Payments Sunshine Act, which requires certain manufacturers of drugs, medical devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the State Children’s Health Insurance Program, with specific exceptions, to report annually to the Centers for Medicare & Medicaid Services, or CMS, information related to: (i) payments or other “transfers of value” made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), other health care professionals (such as physician assistants and nurse practitioners), and teaching hospitals, and (ii) ownership and investment interests held by physicians and their immediate family members;
- analogous state and foreign laws and regulations; state laws that require manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers, marketing expenditures or drug pricing; 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, or that otherwise restrict payments that may be made to healthcare providers; and state and local laws that require the registration of pharmaceutical sales representatives; and
- laws, regulations, and industry standards governing data privacy and security, including laws requiring data to be localized or limiting the transfer of personal data to other countries, data breach notification laws, and personal data privacy laws, such as the UK GDPR, which imposes strict requirements on the processing of personal data, the CCPA, which requires businesses to provide specific disclosures in privacy notices and honor requests of California residents to exercise certain privacy rights, and comprehensive privacy laws of other states such as Virginia and Colorado.

Because of the breadth of these laws and the narrowness of the statutory exceptions and regulatory safe harbors available, it is possible that some of our business activities could be subject to challenge under one or more of such laws. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations 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 of these laws or any other governmental regulations that may apply to us, we may be subject to significant penalties, including, without limitation, civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, exclusion from participating in federal and state funded healthcare programs, such as Medicare and Medicaid, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, contractual damages, diminished profits and future earnings, reputational harm and the curtailment or restructuring of our operations, any of which could harm our business.

The risk of our being found in violation of these laws is increased by the fact that many of them have not been fully interpreted by the regulatory authorities or the courts, and their provisions are open to a variety of interpretations. Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. The shifting compliance environment and the need to build and maintain robust and expandable systems to comply with multiple jurisdictions with different compliance and/or reporting requirements increases the possibility that a healthcare company may run afoul of one or more of the requirements.

Our collaborations in China subject us to risks and uncertainties relating to challenged and changing relations between the United States and China.

Political relations between the United States and China are strained. Each country has been enacting sanctions and threatening additional sanctions against the other. The United States Congress has been pursuing potential legislation targeting certain China-based biopharmaceutical companies and other China-based companies. Additionally, the biopharmaceutical industry in China is strictly regulated by the Chinese government. Changes to Chinese regulations affecting biopharmaceutical companies, and U.S. laws and regulations affecting biopharmaceutical companies based in or operating in China are also unpredictable. Any regulatory changes and changes in United States and China relations may have a material adverse effect on our collaborations, which could harm our business and financial condition.

Even if we obtain regulatory approval for any product candidates, they will remain subject to ongoing regulatory oversight, which may result in significant additional expense.

Even if we obtain any regulatory approval for any product candidates, such product candidates, they will be subject to ongoing regulatory requirements applicable to manufacturing, labeling, packaging, storage, advertising, promoting, sampling, record-keeping and submission of safety and other post-market information, among other things. Any regulatory approvals that we receive for any product candidates may also be subject to a risk evaluation and mitigation strategy, limitations on the approved indicated uses for which the drug may be marketed or to the conditions of approval, or requirements that we conduct potentially costly post-marketing testing and surveillance studies, including Phase 4 trials and surveillance to monitor the quality, safety and efficacy of the drug. An unsuccessful post-marketing study or failure to complete such a study could result in the withdrawal of marketing approval. We will further be required to immediately report any serious and unexpected adverse events and certain quality or production problems with our products to regulatory authorities along with other periodic reports.

Any new legislation addressing drug safety issues could result in delays in product development or commercialization, or increased costs to assure compliance. We will also have to comply with requirements concerning advertising and promotion for our products. Promotional communications with respect to prescription drug products are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved label. As such, we will not be allowed to promote our products for indications or uses for which they do not have approval, commonly known as off-label promotion. The holder of an approved BLA must

submit new or supplemental applications and obtain prior approval for certain changes to the approved product, product labeling, or manufacturing process. A company that is found to have improperly promoted off-label uses of their products may be subject to significant civil, criminal and administrative penalties.

In addition, drug manufacturers are subject to payment of user fees and continual review and periodic inspections by the FDA and other regulatory authorities for compliance with cGMP requirements and adherence to commitments made in the BLA or foreign marketing application. If we, or a regulatory authority, discover previously unknown problems with a drug, such as adverse events of unanticipated severity or frequency, or problems with the facility where the drug is manufactured or if a regulatory authority disagrees with the promotion, marketing or labeling of that drug, a regulatory authority may impose restrictions relative to that drug, the manufacturing facility or us, including requesting a recall or requiring withdrawal of the drug from the market or suspension of manufacturing.

If we fail to comply with applicable regulatory requirements following approval of any product candidates, a regulatory authority may:

- issue a deficiency letter, untitled letter or warning letter asserting that we are in violation of the law;
- seek an injunction or impose administrative, civil or criminal penalties or monetary fines;
- suspend or withdraw regulatory approval;
- suspend any ongoing clinical trials;
- refuse to approve a pending marketing application or supplement to an approved application or comparable foreign marketing application (or any supplements thereto) submitted by us or our strategic partners;
- restrict the marketing or manufacturing of the drug;
- seize or detain the drug or otherwise require the withdrawal of the drug from the market;
- refuse to permit the import or export of products or product candidates; or
- refuse to allow us to enter into supply contracts, including government contracts.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. The occurrence of any event or penalty described above may inhibit our ability to commercialize any product candidates and harm our business, financial condition, results of operations and prospects.

Even if we obtain FDA, MHRA or EMA approval any of our product candidates in the United States or European Union, we may never obtain approval for or commercialize any of them in any other jurisdiction, which would limit our ability to realize their full market potential.

In order to market any products in any particular jurisdiction, we must establish and comply with numerous and varying regulatory requirements on a country-by-country basis regarding safety and efficacy.

Approval by the FDA in the United States or the EMA in the European Union does not ensure approval by regulatory authorities in other countries or jurisdictions. However, the failure to obtain approval in one jurisdiction may negatively impact our ability to obtain approval elsewhere. In addition, clinical trials conducted in one country may not be accepted by regulatory authorities in other countries, and regulatory approval in one country does not guarantee regulatory approval in any other country.

Approval processes vary among countries and can involve additional product testing and validation and additional administrative review periods. Seeking foreign regulatory approval could result in difficulties and increased costs for us and require additional preclinical studies or clinical trials which could be costly and time consuming. Regulatory requirements can vary widely from country to country and could delay or prevent the introduction of our products in those countries. We do not have any product candidates approved for sale in any jurisdiction, including in foreign markets, and we do not have experience in obtaining regulatory approval in any jurisdiction, including in foreign markets. If we fail to comply with regulatory requirements in foreign markets or to obtain and maintain required approvals, or if regulatory approvals in foreign markets are delayed, our target market will be reduced and our ability to realize the full market potential of any product we develop will be unrealized.

Healthcare legislative or regulatory reform measures may have a negative impact on our business and results of operations.

In the United States and some foreign jurisdictions, there have been, and continue to be, several legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval of product candidates, restrict or regulate post-approval activities, and affect our ability to profitably sell any product candidates for which we obtain marketing approval.

Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives. For example, in March 2010, the ACA was passed, which substantially changed the way healthcare is financed by both the government and private insurers, and significantly impacts the U.S. pharmaceutical industry. The ACA, among other things: (i) established an annual, nondeductible fee on any entity that manufactures or imports certain specified branded prescription drugs and biologic agents apportioned among these entities according to their market share in some government healthcare programs; (ii) expanded the entities eligible for discounts under the 340B drug pricing program; (iii) increased the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13% of the average manufacturer price for most branded and generic drugs, respectively, and capped the total rebate amount for innovator drugs at 100% of the Average Manufacturer Price, or AMP; (iv) expanded the eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new eligibility categories for individuals with income at or below 133% (as calculated, it constitutes 138%) of the federal poverty level, thereby potentially increasing manufacturers' Medicaid rebate liability; (v) addressed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for certain drugs and biologics that are inhaled, infused, instilled, implanted or injected; (vi) introduced a new Medicare Part D coverage gap discount program in which manufacturers must now agree to offer 70% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D (increased from 50%, effective January 1, 2019, pursuant to the Bipartisan Budget Act of 2018); (vii) created a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and (viii) established the Center for Medicare and Medicaid Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug.

There have been executive, judicial and congressional challenges to certain aspects of the ACA. For example, on June 17, 2021, the U.S. Supreme Court dismissed the most recent judicial challenge the ACA brought by several states without specifically ruling on the constitutionality of the ACA. Further, on August 16, 2022, President Biden signed the Inflation Reduction Act of 2022, or the IRA, into law, which among other things, extends enhanced subsidies for individuals purchasing health insurance coverage in ACA marketplaces through plan year 2025. The IRA also eliminates the "donut hole" under the Medicare Part D program beginning in 2025 by significantly lowering the beneficiary maximum out-of-pocket cost and through a newly established manufacturer discount program. It is possible that the ACA will be subject to judicial or congressional challenges in the future. It is unclear how such challenges and any additional healthcare reform measures of the Biden administration will impact the ACA or our business.

Other legislative changes have been proposed and adopted since the ACA was enacted. These changes include aggregate reductions to Medicare payments to providers of 2% per fiscal year pursuant to the Budget Control Act of 2011, which began in 2013, and due to subsequent legislative amendments to the statute, will remain in effect until 2032 unless additional congressional action is taken. Additionally, on March 11, 2021, President Biden signed the American Rescue Plan Act of 2021 into law, which eliminates the statutory Medicaid drug rebate cap, previously set at 100% of a drug's average manufacturer price, for single source and innovator multiple source drugs, effective January 1, 2024. These laws may result in additional reductions in Medicare, Medicaid and other healthcare funding, which could have an adverse effect on customers for our product candidates, if approved, and, accordingly, our financial operations.

Additionally, there has been heightened governmental scrutiny in the United States of pharmaceutical pricing practices in light of the rising cost of prescription drugs and biologics. Such scrutiny has resulted in several recent 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 products. For example, in July 2021, the Biden administration released an executive order, “Promoting Competition in the American Economy,” with multiple provisions aimed at prescription drugs. In response to Biden’s executive order, on September 9, 2021, HHS released a Comprehensive Plan for Addressing High Drug Prices that outlines principles for drug pricing reform and sets out a variety of potential legislative policies that Congress could pursue to advance these principles. Additionally, the IRA, among other things, directs HHS to negotiate the price of certain high-expenditure, single-source drugs and biologics covered under Medicare, and subject drug manufacturers to civil monetary penalties and a potential excise tax by offering a price that is not equal to or less than the negotiated “maximum fair price” under the law, and (ii) imposes rebates under Medicare Part B and Medicare Part D to penalize price increases that outpace inflation. The IRA permits HHS to implement many of these provisions through guidance, as opposed to regulation, for the initial years. HHS has and will continue to issue and update guidance as these programs are implemented. These provisions took effect progressively starting in fiscal year 2023. On August 15, 2024, HHS announced the agreed-upon prices of the first ten drugs that were subject to price negotiations, although the Medicare drug price negotiation program is currently subject to legal challenges. HHS will select up to fifteen additional drugs covered under Part D for price negotiation in 2025. It is currently unclear how the IRA will be effectuated but is likely to have a significant impact on the pharmaceutical industry. Further, in response to the Biden administration’s October 2022 executive order, on February 14, 2023, HHS released a report outlining three new models for testing by the Center for Medicare and Medicaid Innovation which will be evaluated on their ability to lower the cost of drugs, promote accessibility, and improve quality of care. It is unclear whether the models will be utilized in any health reform measures in the future. Similar reform measures have been considered and adopted at the state level as well. Further, on December 7, 2023, the Biden administration announced an initiative to control the price of prescription drugs through the use of march in rights under the Bayh-Dole Act. On December 8, 2023, the National Institute of Standards and Technology published for comment a Draft Interagency Guidance Framework for Considering the Exercise of March-In-Rights which for the first time includes the price of a product as one factor an agency can use when deciding to exercise march-in-rights. While march-in-rights have not previously been exercised, it is uncertain if that will continue under the new framework.

We expect that these 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 drug. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our drugs.

In addition, FDA regulations and guidance may be revised or reinterpreted by the FDA in ways that may significantly affect our business and our products. Any new regulations or guidance, or revisions or reinterpretations of existing regulations or guidance, may impose additional costs or lengthen FDA review times for our product candidates. We cannot determine how changes in regulations, statutes, policies, or interpretations when and if issued, enacted or adopted, may affect our business in the future. Such changes could, among other things, require:

- additional clinical trials to be conducted prior to obtaining approval;
- changes to manufacturing methods;
- recalls, replacements, or discontinuance of one or more of our products; and
- additional recordkeeping.

Further, the standards that the FDA and comparable foreign regulatory authorities use require judgment and can change, which makes it difficult to predict with certainty their application. We 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, 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, and Project Equity, an initiative to ensure that the data submitted to the FDA for approval of oncology medical products adequately reflect the demographic representation of patients for whom the medical products are intended.

Such changes would likely require substantial time and impose significant costs, or could reduce the potential commercial value of our product candidates, and could materially harm our business and our financial results. In addition, delays in receipt of or failure to receive regulatory clearances or approvals for any products would harm our business, financial condition, and results of operations.

U.S.-China trade relations may adversely impact our supply chain operations and business.

The U.S. and Chinese governments have taken certain actions that change trade policies, including tariffs that affect certain products which are manufactured in China and mutual exchange of certain types of data. Due to our collaboration with ImmuneOnco, we are reliant on collaborating with a company with significant operations in China. It is unknown whether and to what extent new tariffs, laws or regulations will be adopted that increase the cost or feasibility of importing and/or exporting products, components and information from China to the United States and vice versa. Further, the effect of any such new tariffs or actions on our industry and customers is unknown and difficult to predict. As additional new tariffs, legislation and/or regulations are implemented, or if existing trade agreements are renegotiated or if China or other affected countries take retaliatory trade actions, such changes could have a material adverse effect on our clinical development plans, business, financial condition, results of operations or cash flows.

Risks Related to Employee Matters and Managing our Growth

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

We are highly dependent on the management, development, clinical, financial and business development expertise of our executive officers. Each of our executive officers may currently terminate their employment with us at any time. We do not maintain "key person" insurance for any of our executives or employees.

Recruiting and retaining qualified scientific and clinical personnel and, if we progress the development of our product pipeline toward scaling up for commercialization, manufacturing and sales and marketing personnel, will also be critical to our success. The loss of the services of our executive officers or other key employees could impede the achievement of our development and commercialization objectives and seriously harm our ability to successfully implement our business strategy. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully develop, gain regulatory approval of and commercialize products. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these key personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us. If we are unable to continue to attract and retain high quality personnel, our ability to pursue our growth strategy will be limited.

Our resources may not be sufficient to manage our future growth; failure to properly manage our potential growth could disrupt our operations and adversely affect our business, financial condition, results of operations and prospects.

Even if we obtain funding for operations, we may fail to adequately manage our future growth. As and to the extent our development progresses, we expect to experience significant growth and change in the scope of our operations, particularly in the areas of clinical product development, regulatory affairs, manufacturing and, if any of our product candidates receives marketing approval, sales, marketing and distribution. Any change in our operations may place a significant strain in our administrative, financial and operational resources, and increase demands on our management, as well as our operational and administrative systems, controls and other resources. There can be no assurances that our existing personnel, systems, procedures or controls will be adequate to support our operations in the future; or that we will be able to successfully implement appropriate measures consistent with our growth strategy. To strategically manage our future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit, train and retain additional personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such potential future growth, we may not be able to effectively manage the strategic expansion of our operations, manage our employee base or recruit, train and retain additional personnel. Our failure to properly manage our potential growth may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

Our employees, independent contractors, consultants, collaborators, principal investigators, CROs, suppliers and vendors may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements.

We are exposed to the risk that our employees, independent contractors, consultants, collaborators, principal investigators, CROs, suppliers and vendors may engage in fraudulent conduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct that violates FDA regulations, including those laws requiring the reporting of true, complete and accurate information to the FDA, manufacturing standards, federal and state healthcare laws and regulations, and laws that require the true, complete and accurate reporting of financial information or data. 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. Misconduct by these parties could also involve the improper use of individually identifiable information, including, without limitation, 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 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 significant impact on our business, including the imposition of significant civil, criminal and administrative penalties, including, without limitation, damages, fines, disgorgement, imprisonment, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, and the curtailment or restructuring of our operations.

Risks Related to Ownership of our Common Stock and our Status as a Public Company

An active trading market for our common stock may not continue to be developed or sustained.

Prior to our initial public offering, there was no public market for our common stock. Although our common stock is listed on The Nasdaq Stock Market LLC, if an active trading market for our shares does not continue to be developed or sustained, it may be difficult for you to sell shares of our common stock at an attractive price or at all.

The trading price of the shares of our common stock may be volatile, and purchasers of our common stock could incur substantial losses.

Our stock price has been, and may continue to be volatile. The stock market in general and the market for biopharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, investors may not be able to sell their common stock at or above the price paid for the shares. The market price for our common stock may be influenced by many factors, including:

- the results of our collaborations, the commencement, enrollment or results of our clinical trials of any future clinical trials we may conduct, or changes in the development status of our product candidates;
- our ability to license-in or otherwise acquire any new product candidates;
- any delay in our regulatory filings for any product candidate we may develop, and any adverse development or perceived adverse development with respect to the applicable regulatory authority's review of such filings, including without limitation the FDA's issuance of a "refusal to file" letter or a request for additional information;
- delays in or termination of clinical trials, such as the cessation of our ITIL-306 clinical trials and discontinuation of our ITIL-168 clinical program;
- adverse regulatory decisions, including failure to receive regulatory approval of our product candidates;
- unanticipated serious safety concerns related to the use of any product candidate;
- changes in financial estimates by us or by any equity research analysts who might cover our stock;
- conditions or trends in our industry;
- changes in the market valuations of similar companies;
- announcements by our competitors of new product candidates or technologies, or the results of clinical trials or regulatory decisions;
- stock market price and volume fluctuations of comparable companies and, in particular, those that operate in the biopharmaceutical industry;
- publication of research reports about us or our industry or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- announcements by us or our competitors of significant acquisitions, strategic partnerships or divestitures, such as the recent reduction in our U.S. workforce to a team of approximately 15;
- to lead global business operations and potential reductions in our UK workforce to re-align our operating model;
- our relationships with our collaborators;
- announcements of investigations or regulatory scrutiny of our operations or lawsuits filed against us;
- investors' general perception of our company and our business;
- recruitment or departure of key personnel;
- overall performance of the equity markets;
- trading volume of our common stock;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- significant lawsuits, including patent or stockholder litigation;
- changes in the structure of healthcare payment systems;
- general political and economic conditions; and
- other events or factors, many of which are beyond our control.

The stock market in general, and the Nasdaq Stock Market and biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies, which has resulted in decreased stock prices for many companies notwithstanding the lack of a fundamental change in their underlying business models or prospects. Broad market and industry factors, including the ongoing armed conflicts in Ukraine and the Middle East, supply chain disruptions, heightened inflation and interest rates, recent and potential future disruptions in access to bank deposits

or lending commitments due to bank failures and potentially worsening global economic conditions, may negatively affect 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 section, could have a significant and material adverse impact on the market price of our common stock.

In addition, in the past, stockholders have initiated class action lawsuits against pharmaceutical and biotechnology companies following periods of volatility in the market prices of these companies' stock. This risk is especially relevant for us because pharmaceutical and biotechnology companies have experienced significant stock volatility in recent years. Recently, multiple plaintiffs' law firms publicly issued announcements stating that they are investigating potential securities law claims on behalf of our investors. Such litigation, if instituted against us, could cause us to incur substantial costs, subject us to damages or settlement awards and divert management's attention and resources from our business, which could materially harm our reputation, business, financial condition, results of operations and prospects.

If equity research analysts do not publish research or reports, or publish unfavorable research or reports, about us, our business or our market, our stock price and trading volume could decline.

The trading market for our common stock is influenced by the research and reports that equity research analysts publish about us and our business. We have only limited research coverage by equity research analysts. Equity research analysts may elect not to provide research coverage of our common stock, and such lack of research coverage may adversely affect the market price of our common stock. In the event we do have equity research analyst coverage, we will not have any control over the analysts or the content and opinions included in their reports. The price of our stock could decline if one or more equity research analysts downgrade our stock or issue other unfavorable commentary or research. If one or more equity research analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which in turn could cause our stock price or trading volume to decline.

A significant portion of our total outstanding shares are available for immediate resale. This could cause the market price of our common stock to drop significantly, even if our business is doing well.

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.

As of November 11, 2024, we had 6,525,887 shares of common stock outstanding.

In addition, we have filed a registration statement on Form S-8 under the Securities Act of 1933, as amended, or the Securities Act, registering the issuance of approximately 2.0 million shares of common stock subject to options or other equity awards issued or reserved for future issuance under our equity incentive plans. Shares registered under these registration statements on Form S-8 will be available for sale in the public market subject to vesting arrangements and exercise of options, the lock-up agreements described above and the restrictions of Rule 144 in the case of our affiliates.

Additionally, as of September 30, 2024 the holders of approximately 2.5 million shares of our common stock, or their transferees, have rights, subject to some conditions, to require us to file one or more registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. If we were to register the resale of these shares, they could be freely sold in the public market. If these additional shares are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

Provisions in our corporate charter documents and under Delaware law may prevent or frustrate attempts by our stockholders to change our management and hinder efforts to acquire a controlling interest in us, and the market price of our common stock may be lower as a result.

There are provisions in our certificate of incorporation and bylaws that may make it difficult for a third party to acquire, or attempt to acquire, control of our company, even if a change of control was considered favorable by you and other stockholders. For example, our Board of Directors has the authority to issue up to 10,000,000 shares of preferred stock. The Board of Directors can fix the price, rights, preferences, privileges, and restrictions of the preferred stock without any further vote or action by our stockholders. The issuance of shares of preferred stock may delay or prevent a change of control transaction. As a result, the market price of our common stock and the voting and other rights of our stockholders may be adversely affected. An issuance of shares of preferred stock may result in the loss of voting control to other stockholders.

Our charter documents also contain other provisions that could have an anti-takeover effect, including:

- only one of our three classes of directors will be elected each year;
- stockholders will not be entitled to remove directors other than by a 66 2/3% vote and only for cause;
- stockholders will not be permitted to take actions by written consent;
- stockholders cannot call a special meeting of stockholders; and
- stockholders must give advance notice to nominate directors or submit proposals for consideration at stockholder meetings.

In addition, we are subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law, which regulates corporate acquisitions by prohibiting Delaware corporations from engaging in specified business combinations with particular stockholders of those companies. These provisions could discourage potential acquisition proposals and could delay or prevent a change of control transaction. They could also have the effect of discouraging others from making tender offers for our common stock, including transactions that may be in your best interests. These provisions may also prevent changes in our management or limit the price that investors are willing to pay for our stock.

Concentration of ownership of our common stock among our existing executive officers, directors and principal stockholders may prevent new investors from influencing significant corporate decisions.

Our executive officers, directors and current beneficial owners of 5% or more of our common stock and their respective affiliates beneficially own a significant portion of our outstanding common stock. As a result, these persons, acting together, would be able to significantly influence all matters requiring stockholder approval, including the election and removal of directors, any merger, consolidation, sale of all or substantially all of our assets, or other significant corporate transactions.

Some of these persons or entities may have interests different than yours. For example, because many of these stockholders purchased their shares at prices substantially below the current market price of our common stock and have held their shares for a longer period, they may be more interested in selling our company to an acquirer than other investors, or they may want us to pursue strategies that deviate from the interests of other stockholders.

We are an “emerging growth company” and a “smaller reporting company” and as a result of the reduced disclosure and governance requirements applicable to emerging growth companies and smaller reporting companies, our common stock may be less attractive to investors.

We are an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and we intend to take advantage of some of the exemptions from reporting requirements that are applicable to other public companies that are not emerging growth companies, including:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced “Management’s Discussion and Analysis of Financial Condition and Results of Operations” disclosure;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;

- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor’s report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- not being required to hold a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We cannot predict if investors will find our common stock less attractive because we will rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. We may take advantage of these reporting exemptions until we are no longer an emerging growth company. We will remain an emerging growth company until the earliest of (i) December 31, 2026, (ii) the last day of the fiscal year in which we have total annual gross revenue of at least \$1.235 billion, (iii) the last day of the fiscal year in which we are deemed to be a “large accelerated filer” as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded \$700.0 million as of the last business day of the second fiscal quarter of such year or (iv) the date on which we have issued more than \$1.0 billion in non-convertible debt securities during the prior three-year period.

Even after we no longer qualify as an emerging growth company, we may, under certain circumstances, still qualify as a “smaller reporting company,” which would allow us to take advantage of many of the same exemptions from disclosure requirements, including reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements.

We will have broad discretion in the use of our cash and cash equivalents.

We have broad discretion over the use of our cash and cash equivalents. You may not agree with our decisions, and our use of the proceeds may not yield any return on your investment. Our failure to apply our cash and cash equivalents effectively could compromise our ability to pursue our growth strategy and we might not be able to yield a significant return, if any, on our investment of these net proceeds. You will not have the opportunity to influence our decisions on how to use our cash and cash equivalents.

Because we do not anticipate paying any cash dividends on our common stock in the foreseeable future, capital appreciation, if any, will be your sole source of gains and you may never receive a return on your investment.

You should not rely on an investment in our common stock to provide dividend income. We have not declared or paid cash dividends on our common stock to date. We currently intend to retain our future earnings, if any, to fund the development and growth 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. Investors seeking cash dividends should not purchase our common stock.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware and the federal district courts of the United States of America will be the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders’ ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law:

- 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 under the Delaware General Corporation Law, our amended and restated certificate of incorporation, or our amended and restated bylaws; and

- any action asserting a claim against us that is governed by the internal-affairs doctrine.

This provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated certificate of incorporation further provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our amended and restated certificate of incorporation. This may require significant additional costs associated with resolving such action in other jurisdictions and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

These exclusive 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 our directors, officers, or other employees, which may discourage lawsuits against us and our directors, officers and other employees. If a court were to find either exclusive-forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur further significant additional costs associated with resolving the dispute in other jurisdictions, all of which could seriously harm our business.

General Risk Factors

We have incurred and will continue to incur increased costs and demands upon management as a result of being a public company.

As a public company listed in the United States, we incur significant additional legal, accounting and other costs. These additional costs could negatively affect our financial results. In addition, changing laws, regulations and standards relating to corporate governance and public disclosure, including regulations implemented by the SEC and the Nasdaq Stock Market, may increase legal and financial compliance costs and make some activities more time-consuming. These laws, regulations and standards are subject to varying interpretations and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies.

We intend to invest resources to comply with evolving laws, regulations and standards, 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 notwithstanding our efforts to comply with new laws, regulations and standards, we fail to comply, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

Failure to comply with these rules might also make it more difficult for us to obtain some types of insurance, including director and officer liability insurance, and we might be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified persons to serve on our Board of Directors, on committees of our Board of Directors or as members of senior management.

If we fail to maintain proper and effective internal controls, our ability to produce accurate financial statements on a timely basis could be impaired.

We are subject to the reporting requirements of the Securities Exchange Act of 1934, the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, and the rules and regulations of the stock market on which our common stock is listed. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting.

We must perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal control over financial reporting in our Annual Report on Form 10-K each year, as required by Section 404 of the Sarbanes-Oxley Act. This requires that we incur substantial professional fees and internal costs on accounting and finance functions and that we expend significant management efforts. Prior to our fiscal year ended December 31, 2022, we had never been required to test our internal control within a specified period, and, as a result, we may experience difficulty in meeting these reporting requirements in a timely manner.

We may identify weaknesses in our system of internal financial and accounting controls and procedures that could result in a material misstatement of our financial statements. Our internal control over financial reporting will not prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

If we are not able to comply with the requirements of Section 404 of the Sarbanes-Oxley Act in a timely manner, or if we are unable to maintain proper and effective internal controls, we may not be able to produce timely and accurate financial statements. If that were to happen, the market price of our stock could decline and we could be subject to sanctions or investigations by the stock exchange on which our common stock is listed, the Securities and Exchange Commission or other regulatory authorities.

Our effective tax rate may fluctuate, and we may incur obligations in tax jurisdictions in excess of accrued amounts.

We are subject to taxation in more than one tax jurisdiction. As a result, our effective tax rate is derived from a combination of applicable tax rates in the various places that we operate. In preparing our financial statements, we estimate the amount of tax that will become payable in each of such places. Nevertheless, our effective tax rate may be different than experienced in the past due to numerous factors, including passage of newly enacted tax legislation or regulations, changes in the mix of our profitability from jurisdiction to jurisdiction, the results of examinations and audits of our tax filings, our inability to secure or sustain acceptable agreements with tax authorities and changes in accounting for income taxes. Any of these factors could cause us to experience an effective tax rate significantly different from previous periods or our current expectations and may result in tax obligations in excess of amounts accrued in our financial statements.

We might not be able to utilize a significant portion of our net operating loss carryforwards.

We have generated and expect to continue to generate in the future significant federal and state net operating loss, or NOL, carryforwards. These NOL carryforwards could expire unused and be unavailable to offset future income tax liabilities. Under the Tax Act, as modified by the CARES Act, federal NOLs incurred in taxable years beginning after December 31, 2017 may be carried forward indefinitely, but the deductibility of such federal NOLs is limited. In addition, under Section 382 of the Internal Revenue Code of 1986, as amended, and corresponding provisions of state law, if a corporation undergoes an "ownership change," which is generally defined as a greater than 50% change, by value, in its equity ownership over a three-year period, the corporation's ability to use its pre-change NOL carryforwards and other pre-change tax attributes to offset its post-change income or taxes may be limited. Our initial public offering, together with private placements and other transactions that have occurred since our inception, may have triggered such an ownership change pursuant to Section 382. We have not yet completed a Section 382 analysis. We may experience ownership changes as a result of subsequent shifts in our stock ownership, some of which may be outside of our control. If an ownership change occurs and our ability to use our NOL carryforwards is materially limited, it would harm our future operating results by effectively increasing our future tax obligations. We have a full valuation allowance for deferred tax assets including NOLs.

Our business activities will be subject to the Foreign Corrupt Practices Act, or FCPA, and similar anti-bribery and anti-corruption laws.

As we expand our business activities outside of the United States, including our clinical trial efforts with collaborators in China, we will be subject to the FCPA and similar anti-bribery or anti-corruption laws, regulations or rules of other countries in which we operate. The FCPA generally prohibits offering, promising, giving, or authorizing others to give anything of value, either directly or indirectly, to a non-United States government official in order to influence official action, or otherwise obtain or retain business. The FCPA also requires public companies to make and keep books and records that accurately and fairly reflect the transactions of the corporation and to devise and maintain an adequate system of internal accounting controls. Our business is heavily regulated and therefore involves significant interaction with public officials, including officials of non-United States governments. Additionally, in many other countries, the healthcare providers who prescribe pharmaceuticals are employed by their government, and the purchasers of pharmaceuticals are government entities; therefore, our dealings with these prescribers and purchasers will be subject to regulation under the FCPA. Recently the SEC and Department of Justice have increased their FCPA enforcement activities with respect to biotechnology and pharmaceutical companies. There is no certainty that all of our employees, agents, suppliers, manufacturers, contractors, or collaborators, or those of our affiliates, will comply with all applicable laws and regulations, particularly given the high level of complexity of these laws. Violations of these laws and regulations could result in fines, criminal sanctions against us, our officers, or our employees, the closing down of facilities, including those of our suppliers and manufacturers, requirements to obtain export licenses, cessation of business activities in sanctioned countries, implementation of compliance programs, and prohibitions on the conduct of our business. Any such violations could include prohibitions on our ability to offer our products in one or more countries as well as difficulties in manufacturing or continuing to develop our products, and could materially damage our reputation, our brand, our international expansion efforts, our ability to attract and retain employees, and our business, prospects, operating results, and financial condition.

Disruptions at the FDA, the SEC and other government agencies caused by funding shortages or global health concerns could hinder their ability to hire and retain key leadership and other personnel, prevent new products and services from being developed or commercialized in a timely manner or otherwise prevent those agencies from performing normal business functions on which the operation of our business may rely, which could negatively impact our business.

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, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory, and policy changes. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of the SEC and other government agencies on which our operations may rely, including those 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 or biologics to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, in recent years, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA and the SEC, have had to furlough critical FDA, SEC and other government employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

Separately, in response to the COVID-19 pandemic, the FDA periodically had to postpone inspections of foreign and domestic manufacturing facilities and products. While such inspections have resumed, the FDA may use remote interactive evaluations where in-person inspections are not feasible or may defer action due to factors including travel restrictions. Regulatory authorities outside the United States adopted similar restrictions or other policy measures creating a risk of delays in their regulatory activities. If a prolonged government shutdown occurs, or if a global health concern prevents the FDA or other regulatory authorities from conducting business as usual or conducting inspections, reviews or other regulatory activities, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

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

Our results of operations could be adversely affected by general conditions in the global economy, the global financial markets and global political conditions. The financial markets and the global economy may also be adversely affected by the current or anticipated impact of military conflict, including the ongoing conflicts in Ukraine and the Middle East, terrorism or other geopolitical events, and political tensions between the U.S. and China. Sanctions imposed by the United States and other countries in response to such conflicts and political tensions may also adversely impact our business, the financial markets and the global economy, and any economic countermeasures by the affected countries or others could exacerbate market and economic instability. We are funding and expect to fund additional clinical trials in China related to SYN-2510 and SYN-27M, and portions of our future clinical trials may be conducted outside of the United States, and unfavorable political tensions between the U.S. and China could pose risks to our collaborations. Furthermore, unfavorable economic conditions resulting in the weakening of the U.S. dollar would make those clinical trials more costly to operate. Furthermore, a severe or prolonged economic downturn, including a recession or depression resulting from a disease outbreak, epidemic or pandemic, or political disruption could result in a variety of risks to our business, including weakened demand for our product candidates or any future product candidates, if approved, and our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy or political disruption, including any international trade disputes, could also strain our collaborators, who are also our manufacturers, as well as our other suppliers, possibly resulting in disruptions to clinical trials for our product candidates and obtaining data therefrom. Any of the foregoing could seriously harm our business, and we cannot anticipate all of the ways in which the political or economic climate and financial market conditions could seriously harm our business.

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

(a) Recent Sales of Unregistered Equity Securities

None.

(b) Use of Proceeds

Not applicable.

(c) Issuer Purchases of Equity Securities

None.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Director and Officer Trading Arrangements

None of our directors or executive officers adopted or terminated a Rule 10b5-1 trading arrangement or a non-Rule 10b5-1 trading arrangement (as defined in Item 408(c) of Regulation S-K) during the quarterly period covered by this report.

Item 6. Exhibits

The exhibits listed on the Exhibit Index are either filed or furnished with this report or incorporated herein by reference.

Exhibit Number	Description of Exhibit
3.1	Amended and Restated Certificate of Incorporation, as amended (incorporated herein by reference to Exhibit 3.1 to the Company's Annual Report on Form 10-K (File No. 001-40215), filed with the SEC on March 21, 2024).
3.2	Amended and Restated Bylaws (incorporated herein by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K (File No. 001-40215), filed with the SEC on March 23, 2021).
4.1	Second Amended and Restated Investors' Rights Agreement, by and among the Company and certain of its stockholders, dated December 30, 2020 (incorporated herein by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1 (File No. 333-253620), filed with the SEC on February 26, 2021).
10.1^	First Amendment to Loan Agreement and Omnibus Amendment to Loan Documents dated July 10, 2024 by and among OP USA Debt Holdings II Limited Partnership, Complex Therapeutics LLC and Instil Bio, Inc. (incorporated herein by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-40215), filed with the SEC on August 13, 2024).
10.2^	First Amendment to Mezzanine Loan Agreement and Omnibus Amendment to Mezzanine Loan Documents dated July 10, 2024 by and among OP USA Debt Holdings II Limited Partnership, Complex Therapeutics Mezzanine LLC and Instil Bio, Inc. (incorporated herein by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-40215), filed with the SEC on August 13, 2024).
10.3^	Lease dated July 10, 2024 by and between Complex Therapeutics LLC and AstraZeneca Pharmaceuticals LP. (incorporated herein by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-40215), filed with the SEC on August 13, 2024).
10.4^	License and Collaboration Agreement dated August 1, 2024 by and between ImmuneOnco Biopharmaceuticals (Shanghai) Inc. and SynBioTx, Inc. (incorporated herein by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-40215), filed with the SEC on August 13, 2024).
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.
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.
32.1#	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2#	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following financial information from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2024 formatted in Inline XBRL (Extensible Business Reporting Language) includes: (i) the Condensed Consolidated Balance Sheets, (ii) the Condensed Consolidated Statements of Operations and Comprehensive Loss, (iii) the Condensed Consolidated Statements of Stockholders' Equity, (v) the Condensed Consolidated Statements of Cash Flows, and (vi) Notes to the Condensed Consolidated Financial Statements.
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

* Filed herewith.

- ^ Portions of this exhibit have been omitted because they are not material and are the type that the Company treats as private or confidential, in accordance with Item 601(b)(10) of Regulation S-K.
- # These certifications are being furnished solely to accompany this quarterly report on Form 10-Q pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed “filed” by the registrant for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and are not to be incorporated by reference into any filing of the registrant, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

Signatures

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

INSTIL BIO, INC.

November 13, 2024

By: /s/ Sandeep Laumas

Sandeep Laumas

Chief Financial Officer and Chief Business Officer

*(On behalf of the registrant and in his capacity as Principal Financial Officer and
Principal Accounting Officer)*

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO EXCHANGE ACT RULE 13a-14(a)/15d-14(a)
AS ADOPTED PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002**

I, Bronson Crouch, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Instil Bio, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 13, 2024

/s/ Bronson Crouch

Bronson Crouch

Chief Executive Officer (Principal Executive Officer)

**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO EXCHANGE ACT RULE 13a-14(a)/15d-14(a)
AS ADOPTED PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002**

I, Sandeep Laumas, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Instil Bio, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 13, 2024

/s/ Sandeep Laumas

Sandeep Laumas

Chief Financial Officer (Principal Financial Officer)

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

In connection with the quarterly report of Instil Bio, Inc. (the “Company”) on Form 10-Q for the quarter ended September 30, 2024 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Bronson Crouch, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as amended (the “Exchange Act”); and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Bronson Crouch

Name: Bronson Crouch

Title: Chief Executive Officer
(Principal Executive Officer)

Date: November 13, 2024

This certification shall not be deemed “filed” for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of Section 18 of the Exchange Act. Such certification shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.

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

In connection with the quarterly report of Instil Bio, Inc. (the “Company”) on Form 10-Q for the quarter ended September 30, 2024 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Sandeep Laumas, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as amended (the “Exchange Act”); and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Sandeep Laumas

Name: Sandeep Laumas

Title: Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

Date: November 13, 2024

This certification shall not be deemed “filed” for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of Section 18 of the Exchange Act. Such certification shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.