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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2019

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 001-38792

Alector, Inc.

(Exact name of Registrant as specified in its Charter)

Delaware	**82-2933343**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
131 Oyster Point Blvd, Suite 600 South San Francisco, California	**94080**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: 415-231-5660

Not applicable

(Former name, former address, and former fiscal year, if changed since last report)

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock	ALEC	The NASDAQ Global Select Market

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

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

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

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

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

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

As of November 1, 2019, the registrant had 68,923,730 shares of common stock, $0.0001 par value per share, outstanding.

Alector, Inc.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements. All statements other than statements of historical facts contained in this report, including statements regarding our future results of operations and financial position, business strategy, product candidates, planned preclinical studies and clinical trials, results of clinical trials, research and development costs, regulatory approvals, timing and likelihood of success, as well as plans and objectives of management for future operations, are forward-looking statements. These statements involve known and unknown risks, uncertainties, and other important factors that are in some cases beyond our control and may cause our actual results, performance, or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “would,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential,” or “continue” or the negative of these terms or other similar expressions. Forward-looking statements contained in this report include, but are not limited to, statements about:

- the ability of our clinical trials to demonstrate safety and efficacy of our product candidates, and other positive results;
- the timing and focus of our future clinical trials, and the reporting of data from those trials;
- our plans relating to commercializing our product candidates, if approved, including the geographic areas of focus and sales strategy;
- the expected potential benefits of strategic collaborations with third parties and our ability to attract collaborators with development, regulatory and commercialization expertise;
- our estimates of the number of patients in the United States who suffer from the diseases we are targeting and the number of patients that will enroll in our clinical trials;
- the size of the market opportunity for our product candidates in each of the diseases we are targeting;
- our ability to expand our product candidates into additional indications and patient populations;
- the success of competing therapies that are or may become available;
- the beneficial characteristics, safety, efficacy, and therapeutic effects of our product candidates;
- the timing or likelihood of regulatory filings and approvals, including our expectation to seek special designations, such as orphan drug designation, for our product candidates for various diseases;
- our ability to obtain and maintain regulatory approval of our product candidates;
- our plans relating to the further development and manufacturing of our product candidates, including additional indications that we may pursue;
- existing regulations and regulatory developments in the United States and other jurisdictions;
- our continued reliance on third parties to conduct additional clinical trials of our product candidates, and for the manufacture of our product candidates for preclinical studies and clinical trials;
- our plans and ability to obtain or protect intellectual property rights, including extensions of existing patent terms where available and the outcome of our ongoing arbitration proceedings;
- the need to hire additional personnel and our ability to attract and retain such personnel;
- the accuracy of our estimates regarding expenses, future revenue, capital requirements, and needs for additional financing;
- our financial performance;
- the sufficiency of our existing cash and cash equivalents to fund our future operating expenses and capital expenditure requirements; and
- our expectations regarding the period during which we will qualify as an emerging growth company under the Jumpstart Our Business Startups Act of 2012 (“JOBS Act”).

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

uncertainties, some of which cannot be predicted or quantified, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein until after we distribute this Quarterly Report on Form 10-Q, whether as a result of any new information, future events, or otherwise.

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

Investors and others should note that we may announce material business and financial information to our investors using our investor relations website (https://investors.alector.com), Securities and Exchange Commission ("SEC") filings, webcasts, press releases, and conference calls. We use these mediums, including our website, to communicate with our stockholders and public about our company, our products, and other issues. It is possible that the information that we make available may be deemed to be material information. We therefore encourage investors and others interested in our company to review the information that we make available on our website.

Item 1. Financial Statements.

ALECTOR, INC.

Condensed Consolidated Balance Sheets

(In thousands, except share and per share data)

	September 30, 2019 (Unaudited)	December 31, 2018
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 86,974	$ 65,470
Marketable securities	294,472	224,938
Prepaid expenses and other current assets	4,037	2,768
Total current assets	385,483	293,176
Property and equipment, net	33,861	10,937
Operating lease right-of-use assets	28,765	—
Restricted cash	1,472	1,472
Other assets	149	2,774
TOTAL ASSETS	$ 449,730	$ 308,359
LIABILITIES, CONVERTIBLE PREFERRED STOCK, AND STOCKHOLDERS' EQUITY (DEFICIT)		
CURRENT LIABILITIES:		
Accounts payable	$ 258	$ 126
Accrued clinical supply costs	6,412	4,463
Accrued liabilities	16,546	8,439
Deferred revenue, current portion	29,527	34,905
Deferred rent, current portion	—	15
Operating lease liabilities, current portion	5,975	—
Total current liabilities	58,718	47,948
Deferred revenue, long-term portion	129,875	139,715
Deferred rent, long-term portion	—	7,478
Operating lease liabilities, long-term portion	42,141	—
Other long-term liabilities	409	96
TOTAL LIABILITIES	231,143	195,237
Convertible preferred stock; $0.0001 par value; zero and 45,849,677 shares authorized as of September 30, 2019 and December 31, 2018, respectively; zero and 45,374,836 shares issued and outstanding as of September 30, 2019 and December 31, 2018, respectively	—	210,520
STOCKHOLDERS' EQUITY (DEFICIT):		
Common stock, $0.0001 par value; 200,000,000 and 65,000,000 shares authorized as of September 30, 2019 and December 31, 2018, respectively; 68,922,249 and 13,764,829 shares issued and outstanding as of September 30, 2019 and December 31, 2018, respectively	7	1
Additional paid-in capital	407,647	17,078
Accumulated other comprehensive income (loss)	226	(42)
Accumulated deficit	(189,293)	(114,435)
TOTAL STOCKHOLDERS' EQUITY (DEFICIT)	218,587	(97,398)
TOTAL LIABILITIES, CONVERTIBLE PREFERRED STOCK, AND STOCKHOLDERS' EQUITY (DEFICIT)	$ 449,730	$ 308,359

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

Condensed Consolidated Statements of Operations and Comprehensive Loss
(Unaudited)
(In thousands, except share and per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Revenue:				
Collaboration revenue	$ 2,696	$ 6,503	$ 15,218	$ 18,363
Grant revenue	—	—	—	169
Total revenue	2,696	6,503	15,218	18,532
Operating expenses:				
Research and development	28,519	20,392	74,766	48,934
General and administrative	8,326	2,926	22,514	7,869
Total operating expenses	36,845	23,318	97,280	56,803
Loss from operations	(34,149)	(16,815)	(82,062)	(38,271)
Other income, net	2,411	1,498	7,204	3,396
Net loss	(31,738)	(15,317)	(74,858)	(34,875)
Unrealized gain (loss) on marketable securities	(215)	(48)	268	(140)
Comprehensive loss	$ (31,953)	$ (15,365)	$ (74,590)	$ (35,015)
Net loss per share, basic and diluted	$ (0.47)	$ (1.34)	$ (1.25)	$ (3.13)
Shares used in computing net loss per share, basic and diluted	67,572,452	11,441,285	59,663,773	11,154,391

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

Condensed Consolidated Statement of Convertible Preferred Stock and Stockholders' Equity (Deficit)
(Unaudited)
(In thousands, except share data)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount				
Balance — December 31, 2018	45,374,836	$ 210,520	13,764,829	$ 1	$ 17,078	$ (42)	$ (114,435)	$ (97,398)
Conversion of convertible preferred stock into common stock	(45,374,836)	(210,520)	45,374,836	5	210,516	—	—	210,521
Issuance of common stock upon initial public offering, net of issuance costs	—	—	9,739,541	1	168,222	—	—	168,223
Exercise of stock options	—	—	625	—	5	—	—	5
Forfeiture of restricted common stock	—	—	(8,039)	—	—	—	—	—
Stock-based compensation	—	—	—	—	3,245	—	—	3,245
Unrealized gain on marketable securities	—	—	—	—	—	150	—	150
Net loss	—	—	—	—	—	—	(18,560)	(18,560)
Balance — March 31, 2019	—	—	68,871,792	7	399,066	108	(132,995)	266,186
Exercise of stock options	—	—	8,999	—	63	—	—	63
Forfeiture of restricted common stock	—	—	(48,934)	—	—	—	—	—
Stock-based compensation	—	—	—	—	3,694	—	—	3,694
Unrealized gain on marketable securities	—	—	—	—	—	333	—	333
Net loss	—	—	—	—	—	—	(24,560)	(24,560)
Balance — June 30, 2019	—	—	68,831,857	7	402,823	441	(157,555)	245,716
Exercise of stock options	—	—	90,392	—	720	—	—	720
Stock-based compensation	—	—	—	—	4,104	—	—	4,104
Unrealized loss on marketable securities	—	—	—	—	—	(215)	—	(215)
Net loss	—	—	—	—	—	—	(31,738)	(31,738)
Balance — September 30, 2019	—	$ —	68,922,249	$ 7	$ 407,647	$ 226	$ (189,293)	$ 218,587

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

Condensed Consolidated Statement of Convertible Preferred Stock and Stockholders' Equity (Deficit)
(Unaudited)
(In thousands, except share data)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount				
Balance — December 31, 2017	36,001,203	$ 77,485	13,776,153	$ 1	$ 10,153	$ —	$ (62,187)	$ (52,033)
Forfeiture of restricted common stock	—	—	(11,324)	—	—	—	—	—
Stock-based compensation	—	—	—	—	1,124	—	—	1,124
Unrealized loss on marketable securities	—	—	—	—	—	(154)	—	(154)
Net loss	—	—	—	—	—	—	(8,437)	(8,437)
Balance — March 31, 2018	36,001,203	77,485	13,764,829	1	11,277	(154)	(70,624)	(59,500)
Issuance of Series E convertible preferred stock, net of issuance costs	4,941,825	70,084	—	—	—	—	—	—
Stock-based compensation	—	—	—	—	1,161	—	—	1,161
Unrealized gain on marketable securities	—	—	—	—	—	62	—	62
Net loss	—	—	—	—	—	—	(11,121)	(11,121)
Balance — June 30, 2018	40,943,028	147,569	13,764,829	1	12,438	(92)	(81,745)	(69,398)
Issuance of Series E convertible preferred stock, net of issuance costs	4,407,187	62,601	—	—	—	—	—	—
Stock-based compensation	—	—	—	—	1,980	—	—	1,980
Unrealized loss on marketable securities	—	—	—	—	—	(48)	—	(48)
Net loss	—	—	—	—	—	—	(15,317)	(15,317)
Balance — September 30, 2018	45,350,215	$ 210,170	13,764,829	$ 1	$ 14,418	$ (140)	$ (97,062)	$ (82,783)

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

Condensed Consolidated Statements of Cash Flows
(Unaudited)
(In thousands)

	Nine Months Ended September 30,	
	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (74,858)	$ (34,875)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	2,397	743
Stock-based compensation	11,043	4,265
Accretion of discount on marketable securities	(4,027)	(1,778)
Impairment loss on right-of-use asset	1,158	—
Loss from disposal of property and equipment, net	39	89
Changes in operating assets and liabilities:		
Accounts receivable	—	238
Prepaid expenses and other current assets	(1,269)	(3,638)
Other assets	(72)	132
Accounts payable	132	(604)
Accrued liabilities and accrued clinical supply costs	7,467	(1,125)
Deferred revenue	(15,218)	181,637
Deferred rent	(44)	(1)
Lease liabilities and other long-term liabilities	2,771	35
Net cash provided by (used in) operating activities	(70,481)	145,118
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of property and equipment	(13,692)	(1,467)
Purchase of marketable securities	(411,239)	(395,117)
Maturities of marketable securities	346,000	130,000
Net cash used in investing activities	(78,931)	(266,584)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from issuance of common stock upon initial public offering, net of issuance costs	170,128	(278)
Proceeds from issuance of convertible preferred stock, net of issuance costs	—	132,704
Proceeds from the exercise of options to purchase common stock	788	—
Net cash provided by financing activities	170,916	132,426
Net increase in cash, cash equivalents, and restricted cash	21,504	10,960
Cash, cash equivalents, and restricted cash at beginning of period	66,942	32,451
Cash, cash equivalents, and restricted cash at end of period	$ 88,446	$ 43,411
NON-CASH INVESTING AND FINANCING ACTIVITIES:		
Property and equipment purchases included in accrued liabilities	$ 3,675	$ 30
Deferred offering costs for initial public offering included in accounts payable and accrued liabilities	$ —	$ 729
Tenant improvements paid by landlord	$ 8,286	$ 401

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

1. The Company and Liquidity

Alector, Inc. ("Alector" or the "Company") is a Delaware corporation headquartered in South San Francisco, California. Alector is a biotechnology company focused on harnessing the immune system to cure neurodegenerative diseases.

Initial Public Offering

On February 7, 2019, the Company completed an initial public offering ("IPO") through issuing and selling 9,739,541 shares of common stock at a public offering price of $19.00 per share, including 489,541 shares sold pursuant to the underwriters' partial exercise of their option to purchase additional shares. The aggregate net proceeds received by the Company from the offering, net of underwriting discounts and commissions and offering expenses, were $168.2 million. Upon the closing of the IPO, all of the outstanding shares of convertible preferred stock automatically converted into 45,374,836 shares of common stock. Subsequent to the closing of the IPO, there were no shares of convertible preferred stock outstanding.

2. Summary of Significant Accounting Policies

Basis of Presentation

The condensed consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States ("GAAP") as defined by the Financial Accounting Standards Board ("FASB"). In the opinion of management, these unaudited condensed consolidated financial statements include all normal, recurring adjustments that are necessary to present fairly the results of the interim periods presented. The condensed consolidated financial statements include the accounts of Alector, Inc. and its wholly owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

The results of operations for the interim periods are not necessarily indicative of the results of operations to be expected for the full year. These interim financial statements should be read in conjunction with the audited financial statements as of and for the year ended December 31, 2018, and the notes thereto, which are included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on March 26, 2019.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements and the reported amounts of revenue and expense during the reporting period. The Company evaluates its estimates, including those related to revenue recognition, manufacturing accruals, clinical accruals, fair value of assets and liabilities, income taxes uncertainties, stock-based compensation, and related assumptions on an ongoing basis using historical experience and other factors and adjusts those estimates and assumptions when facts and circumstances dictate. Actual results could materially differ from those estimates.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash, cash equivalents, and short-term marketable securities. Cash and cash equivalents are deposited in checking and sweep accounts at a financial institution. Such deposits may, at times, exceed federally insured limits.

Cash, Cash Equivalents, and Restricted Cash

The Company considers all highly liquid investments with original maturities of three months or less at the date of purchase to be cash and cash equivalents. Cash equivalents, which consist of amounts invested in money market funds, are stated at fair value. There are no unrealized gains or losses on the money market funds for the periods presented.

Restricted cash as of September 30, 2019 relates to a letter of credit established for a lease entered into in June 2018.

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

	Nine Months Ended September 30,	
	2019	2018
	(In thousands)	
Cash and cash equivalents	$ 86,974	$ 41,939
Restricted cash	1,472	1,472
Total cash, cash equivalents, and restricted cash	$ 88,446	$ 43,411

Leases

The Company adopted Accounting Standards Update No. 2016-02, *Leases* on January 1, 2019. Upon adoption, the Company recorded a right-of-use asset and a lease liability for all leases with a term of greater than 12 months. The Company adopted the guidance on a modified retrospective basis and did not restate comparative periods. The Company elected to adopt the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allows the historical lease classification of existing leases be carried forward. As a result of the adoption, the Company recorded operating right-of-use assets of $31.4 million and lease liabilities of $38.9 million on January 1, 2019. The prior deferred rent balances of $7.5 million under legacy guidance, primarily related to a tenant improvement allowance, was derecognized. The lease liabilities balance increase through September 30, 2019 due to additional tenant improvement allowance paid by a landlord. There was no effect on accumulated deficit as a result of the adoption.

The Company determines whether the arrangement is or contains a lease at the inception of the lease. Leases are recognized on the balance sheet as right-of-use assets and lease liabilities. Lease liabilities and their corresponding right-of-use assets are recorded based on the present value of lease payments over the expected lease term. The Company utilizes the appropriate incremental borrowing rate, which is the rate incurred to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment. Certain adjustments to the right-of-use asset may be required for items such as initial direct costs paid or incentives received and any prepaid or accrued rent. Rent expense for the operating lease is recognized on a straight-line basis over the lease term and is included in operating expenses on the statements of operations and comprehensive loss. Variable lease payments include lease operating expenses.

The Company elected to exclude from its balance sheets recognition of leases having a term of 12 months or less (“short-term leases”) and elected to not separate lease components and non-lease components for its long-term leases.

Fair Value of Financial Instruments

The Company’s financial instruments include cash and cash equivalents, accounts payable, and accrued liabilities. The Company’s financial instruments approximate fair value due to their relatively short maturities.

The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. The Company determines the fair value of its financial instruments based on assumptions that market participants would use in pricing an asset or liability in the principal or most advantageous market. When considering market participant assumptions in fair value measurements, the following fair value hierarchy distinguishes between observable and unobservable inputs, which are categorized in one of the following levels:

Level 1 – Inputs are unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date;

Level 2 – Inputs are observable, unadjusted quoted prices in active markets for similar assets or liabilities, unadjusted quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the related assets or liabilities; and

Level 3 – Unobservable inputs that are significant to the measurement of the fair value of the assets or liabilities that are supported by little or no market data.

Revenue Recognition

The Company signed an agreement in October 2017 with AbbVie Biotechnology, Ltd. ("AbbVie") to co-develop antibodies to two program targets in preclinical development ("AbbVie Agreement"). Under the terms of the AbbVie Agreement, AbbVie made $205.0 million in upfront payments, of which $5.0 million and $200.0 million was received by the Company in October 2017 and January 2018, respectively. The Company will perform research and development services for the antibodies to the two programs through the end of Phase 2 clinical trials which the Company expects to conduct through 2023. AbbVie will then have the exclusive right to exercise an option to enter into a license and collaboration agreement with the Company for one or both of the programs for $250.0 million each. If AbbVie exercises its option for the programs, AbbVie will take over the development of the product candidates for such program and costs will be split between the parties. The Company will also share in profits and losses upon commercialization of any products from such program. However, following AbbVie's exercise of its option for a program, the Company may opt out of sharing in development costs and profits or losses for that program and instead receive tiered royalties. Additionally, under the terms of the AbbVie Agreement, the Company will be eligible to earn up to an additional $242.8 million in milestone payments per program related to the initiation of certain clinical studies and regulatory approval for up to three indications per program. The Company assessed its collaboration agreement with AbbVie in the context of the delivery of the research and development services.

The Company recognizes collaboration revenue by measuring the progress toward complete satisfaction of the performance obligation using an input measure. In order to recognize revenue over the research and development period, the Company measures actual costs incurred to date compared to the overall total expected costs to satisfy the performance obligation. Revenues are recognized as the program costs are incurred. We re-evaluate the estimate of expected costs to satisfy the performance obligation each reporting period and make adjustments for any significant changes. Clinical trials are expensive and can take many years to complete, and the outcome is inherently uncertain. Changes in our forecasted costs are likely to occur over time based upon changes in clinical trial procedures set forth in protocols, changes in estimates of manufacturing costs, or feedback from regulators on the design or operation of our clinical trials. Collaboration revenue under the Company's collaboration agreement with AbbVie during the three and nine months ended September 30, 2019 was $2.7 million and $15.2 million, respectively, the entire amount of which was included in deferred revenue at the beginning of the respective periods. The Company recorded deferred revenue of $159.4 million as of September 30, 2019. The deferred revenue is expected to be recognized over the research and development period of the programs through the completion of Phase 2 clinical trials.

Comprehensive Loss

Comprehensive loss includes net loss and certain changes in stockholders' equity that are the result of transactions and economic events other than those with stockholders. The Company's only element of other comprehensive loss was net unrealized gain (loss) on marketable securities.

3. Fair Value Measurements

The following tables summarize the Company's financial assets measured at fair value on a recurring basis by level within the fair value hierarchy:

		September 30, 2019			
	Fair Value Hierarchy	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Market Value
		(In thousands)			
Money market funds	Level 1	$ 76,549	$ —	$ —	$ 76,549
U.S. government treasury securities	Level 1	299,336	242	(16)	299,562
Corporate bonds	Level 2	5,025	—	—	5,025
Total cash equivalents and marketable securities		$ 380,910	$ 242	$ (16)	$ 381,136

		December 31, 2018			
	Fair Value Hierarchy	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Market Value
		(In thousands)			
Money market funds	Level 1	$ 65,222	$ —	$ —	$ 65,222
U.S. government treasury securities	Level 1	224,980	3	(45)	224,938
Total cash equivalents and marketable securities		$ 290,202	$ 3	$ (45)	$ 290,160

The Company's Level 2 securities are valued using third-party pricing sources. The pricing services utilize industry standard valuation models for which all significant inputs are observable. There were no transfers between levels of the fair value hierarchy during the three and nine months ended September 30, 2019. The Company classifies marketable securities available to fund current operations as current assets. As of September 30, 2019, the remaining contractual maturities of $349.3 million investments were less than one year and $31.8 million investments were after one year through two years.

4. Balance Sheet Components

Property and Equipment, Net

Property and equipment, net consists of the following:

	September 30, 2019	December 31, 2018
	(In thousands)	
Leasehold improvements	$ 25,224	$ 210
Lab equipment	9,110	4,599
Furniture and fixtures	2,066	131
Computer equipment	1,457	449
Construction-in-progress	39	7,449
Property and equipment, gross	37,896	12,838
Less accumulated depreciation and amortization	(4,035)	(1,901)
Total property and equipment, net	$ 33,861	$ 10,937

Accrued Liabilities

Accrued liabilities consist of the following:

	September 30, 2019	December 31, 2018
	(In thousands)	
Accrued research and development costs	$ 7,431	$ 3,821
Accrued employee compensation	4,272	2,766
Accrued property and equipment	3,675	293
Accrued professional services	1,046	588
Accrued offering costs	—	792
Other	122	179
Total accrued liabilities	$ 16,546	$ 8,439

5. Leases

In June 2018, the Company signed a lease agreement to lease approximately 105,000 square feet in new office and laboratory space in South San Francisco which serves as the new headquarters (the "Headquarters"). The lease is over a ten-year term with an option to renew for a period of ten years. The Company occupied the premises and began to make rent payments on May 1, 2019. The lease commencement date was in January 2019, as that is when the Company was given control of the space. The landlord paid for $15.7 million of tenant improvements. In connection with the lease, the Company entered into a letter of credit arrangement in the amount of $1.5 million as collateral for the lease, which is classified as restricted cash on the consolidated balance sheets. The Company previously leased approximately 16,000 square feet as its headquarters with its main offices and laboratory facilities in South San Francisco under a sublease agreement that ended in April 2019. The Company also leases approximately 9,000 square feet of laboratory facilities in Milpitas under an agreement that ends in January 2022 with an option to extend for four years. None of the leases included the options to extend in the calculation of the lease liabilities as such extensions are not reasonably certain to occur. Variable lease costs for all of the Company's leases consist of operating expenses for the spaces.

In May 2019, the Company entered into an agreement to sublease approximately 25,000 square feet of the Headquarters (the "Sublease"). The term of the Sublease commenced in June 2019 and lasts for 30 months. The sublessor has the option to extend the Sublease for one additional year subject to the consent of the Company. The sublessee is required to pay its proportionate share of operating expenses for the space.

In June 2019, in connection with the Sublease, the Company evaluated the related right-of-use asset for impairment. The lease costs plus amortization expense of the leasehold improvements in the subleased space exceeded the sublease income over the remaining sublease term. As such, the Company recorded an impairment charge of $1.2 million in general and administrative expenses to write-down the right-of-use asset such that no ongoing loss is expected to be recognized over the sublease period.

The components of lease expense were as follows (in thousands):

	Three Months Ended September 30,	Nine Months Ended September 30,
Operating lease cost	$ 1,346	$ 4,529
Variable lease cost	425	903
Short-term lease cost	—	68
Sublease income and reimbursement of variable lease cost	(540)	(723)
Total	$ 1,231	$ 4,777

Rent expense under legacy leasing guidance for the three and nine months ended September 30, 2018 was $0.2 million and $0.8 million, respectively.

As of September 30, 2019, the weighted-average remaining lease term for operating leases was 9.5 years and the weighted-average discount rate was 8.8%.

The following are the undiscounted cash flows owed under the Company's operating leases as of September 30, 2019:

	(In thousands)
2019 (remaining three months)	$ 1,136
2020	6,882
2021	7,122
2022	7,146
2023	7,376
Thereafter	43,146
Total undiscounted lease payments	$ 72,808
Less: Present value adjustment	(24,692)
Total	$ 48,116

6. Stock-based Compensation

The Company recognized stock-based compensation as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
	(In thousands)		(In thousands)	
Research and development	$ 1,935	$ 1,276	$ 5,515	$ 2,520
General and administrative	2,169	704	5,528	1,745
Total stock-based compensation	$ 4,104	$ 1,980	$ 11,043	$ 4,265

Restricted Common Stock

Activity for the restricted common stock is shown below:

	Number of Shares	Weighted Average Grant Date Fair Value per Share
Unvested restricted common stock as of December 31, 2018	1,917,848	$ 6.95
Vested	(669,125)	6.95
Forfeited	(56,973)	6.95
Unvested restricted common stock as of September 30, 2019	1,191,750	$ 6.95

As of September 30, 2019, total unrecognized stock-based compensation related to unvested restricted common stock was $5.4 million, which the Company expects to recognize over a remaining weighted-average period of 1.7 years.

2019 Equity Incentive Plan

On February 6, 2019, the Company adopted the 2019 Equity Incentive Plan ("2019 Plan") under which the Board may issue incentive stock options, nonstatutory stock options, restricted stock, restricted stock units, stock appreciation rights, performance units, and performance shares to the Company's employees, directors, and consultants. The Company initially reserved for issuance 7,688,156 shares of common stock pursuant to the 2019 Plan. The Company's 2017 Stock Option and Grant Plan ("2017 Plan") was terminated; however, shares subject to awards granted under it will continue to be governed by the 2017 Plan. Shares reserved for issuance but not issued pursuant to, or not subject to, awards granted under the 2017 Plan were added to the available shares in the 2019 Plan. Shares subject to awards granted under the 2017 Plan that are repurchased by, or forfeited to, the Company will also be reserved for issuance under the 2019 Plan. The board of directors, or a committee appointed by the board of directors, has the authority to determine to whom options or shares will be granted, the number of shares, the term, and the exercise price. If an individual owns stock representing 10% or more of the outstanding shares, the exercise price of each share shall be at least 110% of the fair market value and the term of the award shall not exceed than five years. All other options granted under the 2019 Plan must have an exercise price at least equal to the fair market value on the

date of grant and have a term not to exceed ten years. The shares generally vest over a four-year period with straight-line vesting and a 25% one-year cliff. As of September 30, 2019, the Company had reserved 12,829,863 shares of common stock for issuance under the 2019 Plan, of which 6,911,739 shares were available for issuance.

Activity for the options to purchase common stock shown below (in thousands, except share and per share amounts):

	Number of Options	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term (In years)	Aggregate Intrinsic Value
Outstanding as of December 31, 2018	5,063,688	$ 8.94	9.6	$ 6,067
Granted	1,133,100	19.17		
Exercised	(100,016)	7.89		
Forfeited	(178,648)	11.52		
Outstanding as of September 30, 2019	5,918,124	$ 10.84	9.0	$ 26,336
Exercisable as of September 30, 2019	891,664	$ 8.69	8.8	$ 5,296
Vested and expected to vest as of September 30, 2019	5,918,124	$ 10.84	9.0	$ 26,336

The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying stock options and the fair value of the Company's common stock for stock options that were in-the-money. As of September 30, 2019, total unrecognized stock-based compensation related to unvested stock options was $34.6 million, which the Company expects to recognize over a remaining weighted-average period of 2.8 years.

2019 Employee Stock Purchase Plan

On February 6, 2019, the Company adopted the 2019 Employee Stock Option Plan ("2019 ESPP"). The 2019 ESPP will enable eligible employees of the Company to purchase shares of common stock at a discount. The Company has reserved for issuance 1,478,492 shares of common stock pursuant to the 2019 ESPP. The initial offering period began upon completion of the IPO on February 7, 2019 and will end on the last trading day on or before December 1, 2019. Each subsequent offering period will be approximately six months long. ESPP participants will purchase shares of common stock at a price per share equal to 85% of the lesser of (1) the fair market value per share of the common stock on the first trading day of the offering period or (2) the fair market value of the common stock on the purchase date.

7. Related Party Transactions

The Company has a collaboration agreement with Adimab, LLC ("Adimab") under which the Company is developing antibodies discovered by Adimab in its AL001 and AL101 product candidates, and the Company is developing antibodies optimized by Adimab in its AL002 and AL003 product candidates ("2013 Adimab Agreement"). In August 2019, the Company signed a new collaboration agreement with Adimab for research and development of additional antibodies ("2019 Adimab Agreement"). The Chief Executive Officer of Adimab is a Co-Founder and Chairperson of the board of directors of Alector. For the three and nine months ended September 30, 2019, the Company incurred expenses under the 2013 Adimab Agreement of $2.0 million and $2.8 million, respectively, the majority of which is related to milestone payments. For the three and nine months ended September 30, 2018, the Company incurred expenses under the 2013 Adimab Agreement of $1.8 million, the majority of which is related to milestone payments. The Company had $2.0 million and zero in accrued liabilities due to Adimab as of September 30, 2019 and December 31, 2018. Under the 2013 Adimab Agreement, the Company will owe up to $3.5 million in milestone payments per program to Adimab for its product candidates. The Company will also owe low- to mid- single-digit royalty payments for commercial sales of such product candidates. Under the 2019 Adimab Agreement, the Company will owe certain milestone payments per program for its product candidates and low single-digit royalty payments for commercial sales of such product candidates.

8. 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:

	Three and Nine Months Ended September 30,	
	2019	2018
Convertible preferred stock	—	45,350,215
Restricted stock subject to future vesting	1,191,750	2,161,047
Options to purchase common stock	5,918,124	3,048,500
Shares committed under ESPP	51,667	—
Total	7,161,541	50,559,762

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

You should read the following discussion and analysis of our financial condition and results of operations together with our condensed consolidated financial statements and related notes included elsewhere in this Quarterly Report on Form 10-Q. This discussion contains forward-looking statements that involve risks and uncertainties, including those described in the section titled "Special Note Regarding Forward Looking Statements." Our actual results and the timing of selected events could differ materially from those discussed below. Factors that could cause or contribute to such differences include, but are not limited to, those identified below and those set forth under the section titled "Risk Factors" included elsewhere in this report.

Overview

We are a clinical stage biopharmaceutical company pioneering immuno-neurology, a novel therapeutic approach for the treatment of neurodegeneration. Immuno-neurology targets immune dysfunction as a root cause of multiple pathologies that are drivers of degenerative brain disorders. We are developing therapies designed to simultaneously counteract these pathologies by restoring healthy immune function to the brain. Supporting our scientific approach, our Discovery Platform enables us to advance a broad portfolio of product candidates, validated by human genetics, which we believe will improve the probability of technical success over shorter development timelines. As a result, in the last six years, we have identified over forty immune system targets, progressed over ten programs into preclinical research, and advanced three product candidates, AL001, AL002, and AL003, into clinical development.

Our AL001 program is aimed at treating a genetic subset of patients with frontotemporal dementia ("FTD") who have a known genetic mutation that causes a deficiency in progranulin ("PGRN"), which is called FTD-GRN. AL001 has successfully achieved proof-of-mechanism in a Phase 1b study in FTD-GRN subjects by restoring PGRN levels in plasma and cerebrospinal fluid back to the normal range. In the third quarter of 2019, we advanced AL001 into a Phase 2 study with proof-of-concept data in FTD-GRN patients expected in the first half of 2020, which also includes an additional genetic subset of FTD patients ("FTD-C9orf72"). In addition, in consultation with the FDA, we plan to advance AL001 into a Phase 3 study in FTD-GRN patients in 2020.

In the fourth quarter of 2019, we expect to initiate a Phase 1 study with AL101, a product candidate targeting multiple neurodegenerative disorders.

The AL002 and AL003 programs are aimed at treating Alzheimer's disease patients.

In the third quarter of 2019, AL002 completed Phase 1a study in healthy subjects and a dose dependent change in target engagement biomarker in cerebrospinal fluid was observed upon treatment. In the second quarter of 2019, based on safety and tolerability observed in the Phase 1a study, we initiated a Phase 1b study with AL002 in Alzheimer's disease patients. We expect proof of mechanism data from Alzheimer's disease patients in the first half of 2020.

In the first quarter of 2019, we initiated a Phase 1a study in healthy subjects with AL003, a product candidate targeting Alzheimer's disease. Thirty-eight (38) healthy subjects were dosed over eight dose cohorts in the AL003 Phase 1a dose escalation trial. A dose dependent change in target engagement in a blood biomarker was observed upon treatment. One subject treated with the second highest dose experienced aseptic hip monoarthritis and a second subject treated with the highest dose experienced an adverse drug reaction characterized by rash, fever, and thrombocytopenia, which were both deemed treatment-related serious adverse events. The subjects were treated with corticosteroids and recovered. Based on the safety and tolerability observed in the Phase 1a study, we identified a dose and initiated screening for a Phase 1b study with AL003 in Alzheimer's disease patients in the fourth quarter of 2019.

Our operations have been financed primarily through the issuance and sale of convertible preferred stock, our collaboration with AbbVie, and issuance of common stock upon the completion of our initial public offering ("IPO"). We completed our IPO in February 2019, and received $168.2 million net proceeds, net of underwriting discounts and commissions and offering expenses.

To date, we have not had any products approved for sale and have not generated any revenue from product sales nor been profitable. Further, we do not expect to generate revenue from product sales until such time, if ever, that we are able to successfully complete the development and obtain marketing approval for one of our product candidates. We will continue to require additional capital to develop our product candidates and fund operations for the foreseeable future. We have incurred net losses in each year since inception and expect to continue to incur net losses for the foreseeable future. Our ability to generate product revenue will depend on the successful development and eventual commercialization of one or more of our product candidates. Our net losses were $31.7 million and $74.9 million for the three and nine months ended September 30, 2019, respectively. Our net losses were $15.3 million and $34.9 million for the three and nine months ended September 30, 2018, respectively. As of September 30, 2019, we had an accumulated deficit of $189.3 million. Substantially all of our net losses have resulted from costs incurred in connection with our research and development programs and from general and administrative costs associated with our operations. We expect our expenses will increase substantially in connection with our ongoing activities, as we:

- advance product candidates through preclinical studies and clinical trials;
- pursue regulatory approval of product candidates;
- hire additional personnel;
- operate as a public company;
- acquire, discover, validate, and develop additional product candidates;
- require the manufacture of supplies for our preclinical studies and clinical trials; and
- obtain, maintain, expand, and protect our intellectual property portfolio.

Components of Results of Operations

Revenue

We have not generated any revenue from product sales and do not expect to do so in the near future. Our revenue to date has been primarily related the AbbVie Agreement to co-develop product candidates in two programs in clinical development with AbbVie. We recognize revenue related to our research and development grant as the related research services are performed. We recognize revenue from the upfront payments under the AbbVie Agreement over time as the services are provided. Revenues are recognized as the program costs are incurred by measuring actual costs incurred to date compared to the overall total expected costs to satisfy the performance obligation. In addition to receiving the upfront payments, we may also be entitled to development and regulatory milestone payments, opt-in payments for continued development after proof-of-concept for AL002 and AL003, and other future payments from profit sharing or royalties after commercialization of product candidates from such programs.

We expect that our revenue for the next several years will be derived primarily from the AbbVie Agreement. We recorded deferred revenue of $159.4 million as of September 30, 2019. The deferred revenue is expected to be recognized over the research and development period of the programs through the completion of proof-of-concept for AL002 and AL003.

Research and Development Expenses

Research and development expenses account for a significant portion of our operating expenses. We record research and development expenses as incurred. Research and development expenses consist primarily of costs incurred for the discovery and development of our product candidates, which include:

- expenses incurred under agreements with third-party contract organizations, preclinical testing organizations, and consultants;
- costs related to production of clinical materials, including fees paid to contract manufacturers;
- laboratory and vendor expenses related to the execution of preclinical studies and clinical trials;
- personnel-related expenses, including salaries, benefits, and stock-based compensation for personnel engaged in research and development functions;
- costs related to the preparation of regulatory submissions;
- third-party license fees; and
- facilities and other expenses, which include expenses for rent and maintenance of facilities, depreciation and amortization expense, and other supplies.

We expense all research and development costs in the periods in which they are incurred. Costs for certain development activities are recognized based on an evaluation of the progress to completion of specific tasks using information and data provided to us by our vendors, collaborators, and third-party service providers. Nonrefundable advance payments for goods or services to be received in future periods for use in research and development activities are deferred and capitalized. The capitalized amounts are then expensed as the related goods are delivered and as services are performed.

Specific program expenses include expenses associated with the development of our most advanced product candidates, AL001, which is in a Phase 2 clinical trial, and AL002 and AL003, which are in Phase 1 clinical trials. We also have expenses related to the discovery and development of future product candidates and separately tracked expenses related to programs that we expect to move out of preclinical studies and into Phase 1 clinical trials. We do not track personnel or other operating expenses incurred for our research and development programs on a program-specific basis. These expenses primarily relate to salaries and benefits, stock-based compensation, facility expenses, including depreciation, and lab consumables.

At this time, we cannot reasonably estimate or know the nature, timing, and estimated costs of the efforts that will be necessary to complete the development of, and obtain regulatory approval for, any of our product candidates. We expect our research and development expenses to increase substantially for the foreseeable future as we continue to invest in research and development activities related to developing our product candidates, as our product candidates advance into later stages of development, as we begin to conduct larger clinical trials, as we seek regulatory approvals for any product candidates that successfully complete clinical trials, and incur expenses associated with hiring additional personnel to support our research and development efforts. The process of conducting the necessary clinical research to obtain regulatory approval is costly and time-consuming, and the successful development of our product candidates is highly uncertain.

General and Administrative Expenses

General and administrative expenses consist primarily of personnel-related costs, including stock-based compensation, for our personnel in executive, legal, finance and accounting, information technology, human resources, and other administrative functions. General and administrative expenses also include legal fees relating to intellectual property and corporate matters, professional fees paid for accounting, auditing, consulting, and tax services, insurance costs, and facility costs not otherwise included in research and development expenses.

We anticipate that our general and administrative expenses will increase in the future as we increase our headcount to support our continued research activities and development of our programs. We also anticipate that we will incur increased expenses as a result of operating as a public company, including expenses related to compliance with the rules and regulations of the SEC and those of the NASDAQ Stock Market on which our securities are traded, legal, auditing, additional insurance expenses, investor relations activities, and other administrative and professional services. We also commenced confidential arbitration in June 2019 with respect to certain intellectual property matters related to a former consulting co-founder that are also expected to lead to increased legal expenses.

Other Income, Net

Other income, net consists of interest earned on our cash equivalents and marketable securities and foreign currency transaction gains and losses incurred during the period.

Results of Operations

Comparison of the Three Months Ended September 30, 2019 and 2018

	Three Months Ended September 30,		Dollar Change
	2019	2018	
	(In thousands)		
Revenue:			
Collaboration revenue	$ 2,696	$ 6,503	$ (3,807)
Total revenue	2,696	6,503	(3,807)
Operating expenses:			
Research and development	28,519	20,392	8,127
General and administrative	8,326	2,926	5,400
Total operating expenses	36,845	23,318	13,527
Loss from operations	(34,149)	(16,815)	(17,334)
Other income, net	2,411	1,498	913
Net loss	$ (31,738)	$ (15,317)	$ (16,421)

Revenue

Total revenue was $2.7 million for the three months ended September 30, 2019, compared to $6.5 million for the three months ended September 30, 2018. We recognize revenue from the upfront payments under the AbbVie Agreement over time as the services are provided. Revenues are recognized as the program costs are incurred by measuring actual costs incurred to date compared to the overall total expected costs to satisfy the performance obligation. Changes in estimates for revenue recognized over time are recognized on a cumulative basis. Revenue decreased by $3.8 million as we had an increase in total expected costs for the programs arising from changes to the Phase 2 protocol for AL002.

Research and Development Expenses

Research and development expenses were $28.5 million for the three months ended September 30, 2019, compared to $20.4 million for the three months ended September 30, 2018. The increase of $8.1 million was driven by a $2.8 million increase in personnel-related expenses, including stock-based compensation, due to an increase in headcount and issuance of option grants to employees. Expenses for AL101 increased by $2.3 million as we prepare to enter clinical trials in the fourth quarter of 2019. Additionally, there was a $1.7 million increase in facilities and other unallocated research and development mainly related to the lease expense for the new headquarters and higher depreciation expense due to purchase of property and equipment.

	Three Months Ended September 30,		Dollar Change
	2019	2018	
	(In thousands)		
Direct research and development expenses			
AL001	$ 6,437	$ 5,201	$ 1,236
AL101	3,284	980	2,304
AL002	4,752	3,307	1,445
AL003	2,117	3,640	(1,523)
Other early stage programs	3,130	2,942	188
Indirect research and development expenses			
Personnel related (including stock-based compensation)	6,207	3,441	2,766
Facilities and other unallocated research and development expenses	2,592	881	1,711
Total research and development expenses	$ 28,519	$ 20,392	$ 8,127

General and Administrative Expenses

General and administrative expenses were $8.3 million for the three months ended September 30, 2019, compared to $2.9 million for the three months ended September 30, 2018. The increase of $5.4 million was driven by a $2.7 million increase in personnel-related expenses, including stock-based compensation, due to an increase in headcount and issuance of option grants to employees. In addition, $1.5 million increase in facilities and general overhead expenses from additional lease expense related to the lease for the new headquarters, higher depreciation expense due to purchase of property and equipment, directors and officers insurance necessary to operate a public company, and other allocated costs from the increased headcount. The increase is also due to a $1.0 million increase in legal expense due in part to our ongoing arbitration proceeding that we commenced in June 2019.

Other Income, Net

Other income, net was $2.4 million for the three months ended September 30, 2019, compared to $1.5 million for the three months ended September 30, 2018. The increase of $0.9 million was due to interest income earned after we invested proceeds from the issuance of our common stock upon completion of the IPO into short-term marketable securities.

Comparison of the Nine months Ended September 30, 2019 and 2018

	Nine Months Ended September 30,		Dollar Change
	2019	2018	
	(In thousands)		
Revenue:			
Collaboration revenue	$ 15,218	$ 18,363	$ (3,145)
Grant revenue	—	169	(169)
Total revenue	15,218	18,532	(3,314)
Operating expenses:			
Research and development	74,766	48,934	25,832
General and administrative	22,514	7,869	14,645
Total operating expenses	97,280	56,803	40,477
Loss from operations	(82,062)	(38,271)	(43,791)
Other income, net	7,204	3,396	3,808
Net loss	$ (74,858)	$ (34,875)	$ (39,983)

Revenue

Total revenue was $15.2 million for the nine months ended September 30, 2019, compared to $18.5 million for the nine months ended September 30, 2018. We recognize revenue from the upfront payments under the AbbVie Agreement over time as the services are provided. Revenues are recognized as the program costs are incurred by measuring actual costs incurred to date compared to the overall total expected costs to satisfy the performance obligation. Changes in estimates for revenue recognized over time are recognized on a cumulative basis. Revenue decreased by $3.1 million as we had an increase in total expected costs for the programs arising from changes to the Phase 2 protocol for AL002.

Research and Development Expenses

Research and development expenses were $74.8 million for the nine months ended September 30, 2019, compared to $48.9 million for the nine months ended September 30, 2018. The increase of $25.8 million was driven by a $9.2 million increase in personnel-related expenses, including stock-based compensation, due to an increase in headcount and issuance of option grants to employees. Expenses for AL101 increased by $5.7 million as we did not incur any expenses for AL101 until the second quarter of 2018 and this year we are preparing to enter clinical trials in the fourth quarter of 2019. Further, there was a $4.9 million increase in facilities and other unallocated research and development related to the lease expense for the new headquarters and higher depreciation expense due to purchase of property and equipment. In addition, expenses increased for AL001 by $3.0 million and AL002 by $2.9 million to support clinical trials that began in the second half of 2018.

	Nine Months Ended September 30,		Dollar Change
	2019	2018	
	(In thousands)		
Direct research and development expenses			
AL001	$ 12,799	$ 9,849	$ 2,950
AL101	7,147	1,473	5,674
AL002	12,494	9,584	2,910
AL003	6,938	8,577	(1,639)
Other early stage programs	10,537	8,647	1,890
Indirect research and development expenses			
Personnel related (including stock-based compensation)	17,418	8,258	9,160
Facilities and other unallocated research and development expenses	7,433	2,546	4,887
Total research and development expenses	$ 74,766	$ 48,934	$ 25,832

General and Administrative Expenses

General and administrative expenses were $22.5 million for the nine months ended September 30, 2019, compared to $7.9 million for the nine months ended September 30, 2018. The increase of $14.6 million was primarily due to a $7.1 million increase in personnel-related expenses, including stock-based compensation, as a result of an increase in headcount and issuance of option grants to employees. Facilities and general overhead expenses increased by $5.1 million due to additional lease expense related to the lease for the new headquarters, impairment loss on the right-of-use asset related to the sublease, higher depreciation expense due to purchase of property and equipment, directors and officers insurance necessary to operate a public company, and other allocated costs from the increased headcount. The increase is also due to a $1.5 million increase in consulting expense to support the growth of the business related to information technology, accounting, human resources, and other administrative functions.

Other Income, Net

Other income, net was $7.2 million for the nine months ended September 30, 2019, compared to $3.4 million for the nine months ended September 30, 2018. The increase of $3.8 million was due to interest income earned after we invested the proceeds from the issuance of our common stock upon completion of the IPO into short-term marketable securities.

Liquidity and Capital Resources

Since our inception through September 30, 2019, our operations have been financed primarily by net proceeds of $210.5 million from sales of our convertible preferred stock and through the $205.0 million in upfront payments from the AbbVie Agreement. In addition, on February 7, 2019, we completed our IPO through issuing and selling 9,739,541 shares of common stock at a public offering price of $19.00 per share, including 489,541 shares sold pursuant to the underwriters' partial exercise of their option to purchase additional shares. We received aggregate net proceeds from the offering, net of underwriting discounts and commissions and offering expenses, of $168.2 million. As of September 30, 2019, we had $381.4 million of cash, cash equivalents, and marketable securities. As of September 30, 2019, we had an accumulated deficit of $189.3 million.

Future Funding Requirements

Our primary uses of cash are to fund our operations, which consist primarily of research and development expenditures related to our programs, and to a lesser extent, general and administrative expenditures. We expect our expenses to continue to increase in connection with our ongoing activities, in particular as we continue to advance our product candidates and our discovery programs. In addition, we expect to incur additional costs associated with operating as a public company.

Based on our current operating plan, we believe that our existing cash, cash equivalents, and marketable securities will enable us to fund our operating expenses and capital expenditure requirements through at least the next 12 months from the filing date of this Quarterly Report on Form 10-Q. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. We may also choose to seek additional financing opportunistically. We expect to need to obtain substantial additional funding in the future for our research and development activities and continuing

operations. If we were unable to raise capital when needed or on favorable terms, we would be forced to delay, reduce, or eliminate our research and development programs or future commercialization efforts.

Our future capital requirements will depend on many factors, including:

- the timing and progress of preclinical and clinical development activities;
- the number and scope of preclinical and clinical programs we decide to pursue;
- successful enrollment in and completion of clinical trials;
- our ability to establish agreements with third-party manufacturers for clinical supply for our clinical trials and, if our product candidates are approved, commercial manufacturing;
- our ability to maintain our current research and development programs and establish new research and development programs;
- addition and retention of key research and development personnel;
- our efforts to enhance operational, financial, and information management systems, and hire additional personnel, including personnel to support development of our product candidates;
- negotiating favorable terms in any collaboration, licensing, or other arrangements into which we may enter and performing our obligations in such collaborations;
- the timing and amount of milestone and other payments we may receive under our collaboration arrangements;
- our eventual commercialization plans for our product candidates;
- the costs involved in prosecuting, defending, and enforcing patent claims and other intellectual property claims, including related to the ongoing arbitration proceeding that we commenced in June 2019; and
- the costs and timing of regulatory approvals.

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

Cash Flows

The following table summarizes our cash flows for the periods indicated (in thousands):

	Nine Months Ended September 30,	
	2019	2018
Cash provided by (used in) operating activities	$ (70,481)	$ 145,118
Cash used in investing activities	(78,931)	(266,584)
Cash provided by financing activities	170,916	132,426

Operating Activities

For the nine months ended September 30, 2019, cash used in operating activities was $70.5 million. This was mainly due to the net loss of $74.9 million and the decrease in deferred revenue of $15.2 million as revenue was recognized related to the AbbVie Agreement. This was offset by a non-cash charge of $11.0 million for stock-based compensation and an increase of $7.5 million in accrued liabilities and accrued clinical supply costs.

For the nine months ended September 30, 2018, cash provided by operating activities was $145.1 million. The net cash inflow from operations primarily resulted from the receipt of a $200.0 million upfront payment from AbbVie in January 2018, that was reflected as a net increase in deferred revenue of $181.6 million during the period. This was mainly offset by a net loss of $34.9 million.

Investing Activities

For the nine months ended September 30, 2019, cash used in investing activities of $78.9 million was primarily related to the purchase of short-term marketable securities of $411.2 million offset by the proceeds from maturities of marketable securities of $346.0 million. In addition, we used cash for the purchase of $13.7 million of property and equipment.

For the nine months ended September 30, 2018, cash used in investing activities of $266.6 million was primarily related to the purchase of short-term marketable securities of $395.1 million offset by the proceeds from maturities of short-term marketable securities of $130.0 million. In addition, we used cash for the purchase of $1.5 million of property and equipment.

Financing Activities

For the nine months ended September 30, 2019, cash provided by financing activities of $170.9 million was primarily from net proceeds of the issuance of 9,739,541 shares of our common stock upon the completion of our IPO.

For the nine months ended September 30, 2018, cash provided by financing activities of $132.4 million was mainly from the net proceeds of the issuance of 9,349,012 shares of our Series E convertible preferred stock in April 2018 and July 2018.

Contractual Obligations and Other Commitments

There have been no material changes to our contractual obligations and other commitments as of September 30, 2019, as compared to those disclosed in our Annual Report on Form 10-K, which was filed with the SEC on March 26, 2019.

Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements and do not have any holdings in variable interest entities.

Critical Accounting Polices and Estimates

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

Other than the disclosures below, there have been no material changes to our critical accounting policies and estimates from those described in "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our 2018 Annual Report on Form 10-K, as filed with the SEC on March 26, 2019.

Revenue Recognition

We recognize collaboration revenue by measuring the progress toward complete satisfaction of the performance obligation using an input measure. In order to recognize revenue over the research and development period, we measure actual costs incurred to date compared to the overall total expected costs to satisfy the performance obligation. Revenues are recognized as the program costs are incurred. We re-evaluate the estimate of expected costs to satisfy the performance obligation each reporting period and make adjustments for any significant changes. Clinical trials are expensive and can take many years to complete, and the outcome is inherently uncertain. Changes in our forecasted costs are likely to occur over time based upon changes in clinical trial procedures set forth in protocols, changes in estimates of manufacturing costs, or feedback from regulators on the design or operation of our clinical trials. We have had changes to the overall expected costs to satisfy the performance obligations from period to period. For the three months ended September 30, 2019, we had a 10% increase in the forecast of total expected costs due to changes to the clinical trial plans. For the three months ended September 30, 2019, the increase in the overall expected costs to satisfy the performance obligation resulted in an approximately $5 million reduction in revenue compared to if the expected costs had remained the same, as a result of the cumulative catch up for the change in estimate.

Leases

We adopted Accounting Standards Update No. 2016-02, *Leases* on January 1, 2019. Upon adoption, we recorded a right-of-use asset and a lease liability for all leases with a term of greater than 12 months. We adopted the guidance on a modified retrospective basis and did not restate comparative periods. We elected to adopt the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allows the historical lease classification of existing leases be carried forward. There was no cumulative effect on accumulated deficit as a result of the adoption.

We determine whether the arrangement is or contains a lease at the inception of the lease. Leases are recognized on the balance sheet as right-of-use assets and lease liabilities. Lease liabilities and their corresponding right-of-use assets are recorded based on the present value of lease payments over the expected lease term. We utilize the appropriate incremental borrowing rate, which is the rate incurred to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment. We do not have our own debt or credit rating to use in determining the incremental borrowing rate. As such, we engaged a valuation specialist to assist in determining a rate based on the economic metrics and risk-profile compared to similar companies. Certain adjustments to the right-of-use asset may be required for items such as initial direct costs paid or incentives received and any prepaid or accrued rent. Rent expense for the operating lease is recognized on a straight-line basis over the lease term and is included in operating expenses on the statements of operations and comprehensive loss. Variable lease payments include lease operating expenses.

We elected to exclude from our balance sheets recognition of leases having a term of 12 months or less and elected to not separate lease components and non-lease components for our long-term leases.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Interest Rate Risk

We are exposed to market risks in the ordinary course of our business. These risks primarily include interest rate sensitivities. The primary objective of our investment activities is to preserve capital to fund our operations. We also seek to maximize income from our investments without assuming significant risk. To achieve our objectives, we maintain a portfolio of investments in a variety of securities of high credit quality and generally short-term duration, invested in compliance with our policy.

We had cash, cash equivalents, and marketable securities of $381.4 million as of September 30, 2019, which consisted primarily of bank deposits, money market funds, short-term government marketable securities, and corporate bonds. Such interest-earning instruments carry a degree of interest rate risk; however, historical fluctuations in interest income have not been significant for us. Due to the generally short-term maturities of our cash equivalents and marketable securities, and the low risk profile of our marketable securities, an immediate 100 basis point change in interest rates would not have a material effect on the fair market value of our cash equivalents and marketable securities.

Foreign Currency Risk

Our expenses are generally denominated in U.S. dollars. However, we have entered into a limited number of contracts with vendors for research and development services with payments denominated in foreign currencies, including the Euro. We are subject to foreign currency transaction gains or losses on our contracts denominated in foreign currencies. To date, foreign currency transaction gains and losses have not been material to our financial statements, and we have not had a formal hedging program with respect to foreign currency. A 10% increase or decrease in current exchange rates would not have a material effect on our financial results.

Item 4. Controls and Procedures.

Conclusions Regarding the Effectiveness of Disclosure Controls and Procedures

As of September 30, 2019, management, with the participation of our Principal Executive Officer and Principal Financial and Accounting Officer, performed an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act. Our disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including the Principal Executive Officer and the Principal Financial and Accounting Officer, to allow timely decisions regarding required disclosures. Any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objective and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on this evaluation, our Principal Executive Officer and Principal Financial and Accounting Officer concluded that, as of September 30, 2019, the design and operation of our disclosure controls and procedures were effective at a reasonable assurance level.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended September 30, 2019, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

From time to time, we may become involved in litigation or other legal proceedings. We are not currently a party to any litigation or legal proceedings that, in the opinion of our management, are likely to have a material adverse effect on our business. We have initiated an arbitration against a third party as set forth below. Regardless of outcome, litigation, or other legal proceedings can have an adverse impact on us because of legal fees and settlement costs, diversion of management resources, and other factors.

On June 18, 2019, we initiated a confidential arbitration proceeding against Dr. Asa Abeliovich, our former consulting co-founder, related to alleged breaches of his consulting agreement and the improper use of our confidential information that he learned during the course of rendering services to us as our consulting Chief Scientific Officer/Chief Innovation Officer. We are in the early stage of this arbitration proceeding and are unable to assess or provide any assurances regarding its possible outcome.

Item 1A. Risk Factors.

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below, as well as the other information in this Quarterly Report on Form 10-Q, including our financial statements and the related notes and the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations." The occurrence of any of the events or developments described below could harm our business, financial condition, results of operations, and growth prospects. In such an event, the market price of our common stock could decline, and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations and the market price of our common stock. The risks facing our business have not changed substantively from those discussed in our Annual Report on Form 10-K, filed with the Securities and Exchange Commission on March 26, 2019, except for those risks marked with an asterisk (*).

Risks Related to Our Business, Financial Condition, and Capital Requirements

We are in the early stages of clinical drug development and have a limited operating history and no products approved for commercial sale, which may make it difficult to evaluate our current business and predict our future success and viability.*

We are a clinical stage biopharmaceutical company with a limited operating history, focused initially on developing therapeutics for neurodegenerative diseases, including frontotemporal dementia ("FTD"), Alzheimer's disease, and Parkinson's disease. We commenced operations in May 2013. To date, we have only generated revenue from our collaboration arrangements and a government grant. We have no products approved for commercial sale and have not generated any revenue from product sales. Drug development is a highly uncertain undertaking and involves a substantial degree of risk. We have begun a Phase 2 clinical trial for one product candidate, AL001, and two product candidates, AL002 and AL003, are currently in Phase 1 clinical trials, but to date, we have not initiated or completed a pivotal clinical trial, obtained marketing approval for any product candidates, manufactured a commercial scale product or arranged for a third party to do so on our behalf, or conducted sales and marketing activities necessary for successful product commercialization. Our short operating history as a company makes any assessment of our future success and viability subject to significant uncertainty.

We will encounter risks and difficulties frequently experienced by early-stage biopharmaceutical companies in rapidly evolving fields, and we have not yet demonstrated an ability to successfully overcome such risks and difficulties. If we do not address these risks and difficulties successfully, our business will suffer.

We have incurred significant net losses in each period since our inception and anticipate that we will continue to incur net losses for the foreseeable future.

We have incurred net losses in each reporting period since our inception, including net losses of $31.7 million and $74.9 million for the three and nine months ended September 30, 2019, respectively. We incurred net losses of $15.3 million and $34.9 million for the three and nine months ended September 30, 2018, respectively. As of September 30, 2019, we had an accumulated deficit of $189.3 million.

We have invested significant financial resources in research and development activities, including for our preclinical and clinical product candidates. We do not expect to generate revenue from product sales for several years, if at all. The revenue we currently generate from our collaboration arrangement with AbbVie Biotechnology, Ltd. ("AbbVie") is variable and limited in amount based on such arrangements. For our collaboration with AbbVie, we recognize collaboration revenue by measuring the progress towards complete satisfaction of the performance of obligation measured as the program costs are incurred. The amount of our future net losses will depend, in part, on the level of our future expenditures and revenue. Moreover, our net losses may fluctuate significantly from quarter to quarter and year to year, such that a period-to-period comparison of our results of operations may not be a good indication of our future performance.

We expect to continue to incur significant expenses and increasingly higher operating losses for the foreseeable future. We anticipate that our expenses will increase substantially if and as we:

- continue our research and discovery activities;
- advance our Discovery Platform, including our target, patient, and biomarker selections;
- progress our current and any future product candidates through preclinical and clinical development;
- initiate and conduct additional preclinical, clinical, or other studies for our product candidates;
- work with our contract development and manufacturing organizations ("CDMOs") to scale up the manufacturing processes for our product candidates or, in the future, establish and operate a manufacturing facility;
- change or add additional contract manufacturers or suppliers;
- seek regulatory approvals and marketing authorizations for our product candidates;
- establish sales, marketing, and distribution infrastructure to commercialize any products for which we obtain approval;
- make milestone, royalty, or other payments due under any license or collaboration agreements;
- take steps to seek protection of our intellectual property and defend our intellectual property against challenges from third parties;
- obtain, maintain, protect, and enforce our intellectual property portfolio, including intellectual property obtained through license agreements, such as the arbitration proceeding that we have initiated against our former consulting co-founder;
- attract, hire, and retain qualified personnel;
- provide additional internal infrastructure to support our continued research and development operations and any planned commercialization efforts in the future;
- experience any delays or encounter other issues related to our operations;
- implement additional internal systems and infrastructure related to cybersecurity;
- meet the requirements and demands of being a public company; and
- defend against any product liability claims or other lawsuits related to our products.

Our prior losses and expected future losses have had and will continue to have an adverse effect on our stockholders' equity and working capital. In any particular quarter or quarters, our operating results could be below the expectations of securities analysts or investors, which could cause our stock price to decline.

Drug development is a highly uncertain undertaking and involves a substantial degree of risk.

We have no products approved for commercial sale. To obtain revenues from the sales of our product candidates that are significant or large enough to achieve profitability, we must succeed, either alone or with third parties, in developing, obtaining regulatory approval for, manufacturing, and marketing therapies with significant commercial success. Our ability to generate revenue and achieve profitability depends on many factors, including:

- completing research and preclinical and clinical development of our product candidates;
- obtaining regulatory approvals and marketing authorizations for product candidates for which we successfully complete clinical development and clinical trials;

- developing a sustainable and scalable manufacturing process for our product candidates, as well as establishing and maintaining commercially viable supply relationships with third parties that can provide adequate products and services to support clinical activities and commercial demand of our product candidates;
- identifying, assessing, acquiring, and/or developing new product candidates;
- negotiating favorable terms in any collaboration, licensing, or other arrangements into which we may enter;
- launching and successfully commercializing product candidates for which we obtain regulatory and marketing approval, either by collaborating with a partner or, if launched independently, by establishing a sales, marketing, and distribution infrastructure;
- obtaining and maintaining an adequate price for our product candidates, both in the United States and in foreign countries where our products are commercialized;
- obtaining adequate reimbursement for our product candidates from payors;
- obtaining market acceptance of our product candidates as viable treatment options;
- addressing any competing technological and market developments;
- receiving milestones and other payments under our current and any future collaboration arrangements;
- maintaining, protecting, expanding, and enforcing our portfolio of intellectual property rights, including patents, trade secrets, and know-how; and
- attracting, hiring, and retaining qualified personnel.

Because of the numerous risks and uncertainties associated with drug development, we are unable to predict the timing or amount of our expenses, or when we will be able to generate any meaningful revenue or achieve or maintain profitability, if ever. In addition, our expenses could increase beyond our current expectations if we are required by the U.S. Food and Drug Administration ("FDA") or foreign regulatory agencies, to perform studies in addition to those that we currently anticipate, or if there are any delays in any of our or our future collaborators' clinical trials or the development of any of our product candidates. Even if one or more of our product candidates is approved for commercial sale, we anticipate incurring significant costs associated with launching and commercializing any approved product candidate and ongoing compliance efforts.

We will need to obtain substantial additional financing to complete the development and any commercialization of our product candidates, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce, or terminate our commercialization efforts, product development, or other operations.

Our operations have required substantial amounts of cash since inception, and we expect our expenses to increase significantly in the foreseeable future. To date, we have financed our operations primarily through the sale of equity securities and through our government grant and upfront payments received in connection with our collaboration arrangement with AbbVie. Developing our product candidates and conducting clinical trials for the treatment of neurodegenerative diseases, including FTD, Alzheimer's disease, and Parkinson's disease, will require substantial amounts of capital. We will also require a significant amount of capital to commercialize any approved products.

As of September 30, 2019, we had cash, cash equivalents, and marketable securities of $381.4 million. In February 2019, we received $168.2 million of net proceeds from the issuance of common stock upon the completion of our initial public offering ("IPO"), net of underwriting discounts and commissions and offering expenses. Based on our current operating plan, we believe that our existing cash, cash equivalents, and marketable securities will be sufficient to fund our projected operations through at least the next 12 months. Our estimate as to how long we expect our existing cash, cash equivalents, and marketable securities to be available to fund our operations is based on assumptions that may be proved inaccurate, and we could use our available capital resources sooner than we currently expect. In addition, changing circumstances may cause us to increase our spending significantly faster than we currently anticipate, and we may need to spend more money than currently expected because of circumstances beyond our control. We may need to raise additional funds sooner than we anticipate if we choose to expand more rapidly than we presently anticipate.

We will require additional capital for the further development and, if approved, commercialization of our product candidates. Additional capital may not be available when we need it, on terms acceptable to us or at all. We have no committed source of additional capital. If adequate capital is not available to us on a timely basis, we may be required to significantly delay, scale back, or discontinue our research and development programs or the commercialization of any product candidates, if approved, or be unable to continue or expand our operations, or otherwise capitalize on our business opportunities, as desired, which could materially affect our business, financial condition, results of operations, and growth prospects and cause the price of our common stock to decline.

To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders 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, 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. If we raise additional funds through collaborations, strategic alliances, or licensing arrangements with pharmaceutical partners, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs, or product candidates, or grant licenses on terms that may not be favorable to us.

Due to the significant resources required for the development of our programs, and depending on our ability to access capital, we must prioritize development of certain product candidates. Moreover, we may expend our limited resources on programs that do not yield a successful product candidate or fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

To date, we have identified over forty immune system targets. In the last five years, we have progressed over ten programs into preclinical research. By the end of 2019, we expect to have four product candidates in clinical trials. Together, the development of these programs and product candidates require significant capital investment. Due to the significant resources required for the development of our programs and product candidates, we must focus our programs and product candidates on specific diseases and disease pathways and decide which product candidates to pursue and advance and the amount of resources to allocate to each. Our drug development strategy is to clinically test and seek regulatory approval for our product candidates in indications in which we believe there is the most evidence that we will be able to quickly generate proof-of-concept data. We then intend to expand to clinical testing and seek regulatory approvals in other neurodegenerative indications based on genetic and mechanistic overlap with the primary indication. However, even if our product candidates are able to gain regulatory approval in one indication, there is no guarantee that we will be able to expand to other indications, and we may expend significant resources in seeking such approvals. In addition, we may focus resources on pursuing indications outside of neurodegeneration based on the same genetic and mechanistic rationale we utilize in determining on which of our discovery programs to focus. Our decisions concerning the allocation of research, development, collaboration, management, and financial resources toward particular product candidates or therapeutic areas may not lead to the development of any viable commercial product and may divert resources away from better opportunities. Similarly, our potential decisions to delay, terminate, or collaborate with third parties in respect of certain programs may subsequently also prove to be suboptimal and could cause us to miss valuable opportunities. If we make incorrect determinations regarding the viability or market potential of any of our programs or product candidates or misread trends in the biopharmaceutical industry, in particular for neurodegenerative diseases, our business, financial condition, and results of operations could be materially adversely affected. As a result, we may fail to capitalize on viable commercial products or profitable market opportunities, be required to forego or delay pursuit of opportunities with other product candidates or other diseases and disease pathways that may later prove to have greater commercial potential than those we choose to pursue, or relinquish valuable rights to such product candidates through collaboration, licensing, or other royalty arrangements in cases in which it would have been advantageous for us to invest additional resources to retain sole development and commercialization rights.

Risks Related to the Discovery, Development, and Commercialization of Our Product Candidates

Research and development of biopharmaceutical products is inherently risky. Our business is heavily dependent on the successful development of our product candidates, which are in the early stages of preclinical and clinical development. We cannot give any assurance that any of our product candidates will receive regulatory, including marketing, approval, which is necessary before they can be commercialized.*

We are at the early stages of development of the product candidates currently in our programs. To date, we have invested substantially all of our efforts and financial resources to identify, procure intellectual property for, and develop our programs, including conducting preclinical studies and clinical trials in our programs for our product candidates, AL001, AL002, AL003, and AL101, and providing general and administrative support for these operations. Our future success is dependent on our ability to successfully develop, obtain regulatory approval for, and then successfully commercialize our product candidates, and we may fail to do so for many reasons, including the following:

- our product candidates may not successfully complete preclinical studies or clinical trials;
- a product candidate may on further study be shown to have harmful side effects or other characteristics that indicate it is unlikely to be effective or otherwise does not meet applicable regulatory criteria;
- our competitors may develop therapeutics that render our product candidates obsolete or less attractive;
- the product candidates that we develop may not be sufficiently covered by intellectual property for which we hold exclusive rights;
- the product candidates that we develop may be covered by third parties' patents or other intellectual property or exclusive rights;
- the market for a product candidate may change so that the continued development of that product candidate is no longer reasonable or commercially attractive;

- a product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all;
- if a product candidate obtains regulatory approval, we may be unable to establish sales and marketing capabilities, or successfully market such approved product candidate, to gain market acceptance; and
- a product candidate may not be accepted as safe and effective by patients, the medical community or third-party payors, if applicable.

If any of these events occur, we may be forced to abandon our development efforts for a program or programs, which would have a material adverse effect on our business and could potentially cause us to cease operations.

We may not be successful in our efforts to further develop our current product candidates. We are not permitted to market or promote any of our product candidates before we receive regulatory approval from the FDA or comparable foreign regulatory authorities, and we may never receive such regulatory approval for any of our product candidates. Each of our product candidates is in the early stages of development and will require significant additional clinical development, management of preclinical, clinical, and manufacturing activities, regulatory approval, adequate manufacturing supply, a commercial organization, and significant marketing efforts before we generate any revenue from product sales, if at all.

We have never completed a clinical development program. We currently have one product candidate, AL001, in a Phase 2 clinical trial and two product candidates, AL002 and AL003, in Phase 1 clinical trials. None of our product candidates have advanced into late-stage development or a pivotal clinical trial and it may be years before any such trial is initiated, if at all. Further, we cannot be certain that any of our product candidates will be successful in clinical trials. We may in the future advance product candidates into clinical trials and terminate such trials prior to their completion.

If any of our product candidates successfully complete clinical trials, we generally plan to seek regulatory approval to market our product candidates in the United States, the European Union, and in additional foreign countries where we believe there is a viable commercial opportunity. We have never commenced, compiled or submitted an application seeking regulatory approval to market any product candidate. We may never receive regulatory approval to market any product candidates even if such product candidates successfully complete clinical trials, which would adversely affect our viability. To obtain regulatory approval in countries outside the United States, we must comply with numerous and varying regulatory requirements of such other countries regarding safety, efficacy, manufacturing and controls, clinical trials, commercial sales, pricing, and distribution of our product candidates. We may also rely on our collaborators or partners to conduct the required activities to support an application for regulatory approval, and to seek approval, for one or more of our product candidates. For example, for our AL002 and AL003 product candidates, our collaboration arrangement with AbbVie provides that we are responsible for the execution of the Phase 1 and Phase 2 studies. We cannot be sure that our collaborators or partners will conduct these activities or do so within the timeframe we desire. Even if we (or our collaborators or partners) are successful in obtaining approval in one jurisdiction, we cannot ensure that we will obtain approval in any other jurisdictions. If we are unable to obtain approval for our product candidates in multiple jurisdictions, our business, financial condition, results of operations, and our growth prospects could be negatively affected.

Even if we receive regulatory approval to market any of our product candidates, whether for the treatment of neurodegenerative diseases or other diseases, we cannot assure you that any such product candidate will be successfully commercialized, widely accepted in the marketplace or more effective than other commercially available alternatives.

Investment in biopharmaceutical product development involves significant risk that any product candidate will fail to demonstrate adequate efficacy or an acceptable safety profile, gain regulatory approval, and become commercially viable. We cannot provide any assurance that we will be able to successfully advance any of our product candidates through the development process or, if approved, successfully commercialize any of our product candidates.

We may not be successful in our efforts to continue to create a pipeline of product candidates from our Discovery Platform or to develop commercially successful products. If we fail to successfully identify and develop additional product candidates from our Discover Platform, our commercial opportunity may be limited.

One of our strategies is to identify and pursue clinical development of additional product candidates. Our Discovery Platform has helped us identify over forty immune system targets. In the last five years, we have progressed over ten programs into early preclinical development. By the end of 2019, we expect to have four product candidates in clinical trials. Identifying, developing, obtaining regulatory approval, and commercializing additional product candidates for the treatment of neurodegenerative diseases will require substantial additional funding and is prone to the risks of failure inherent in drug development. We cannot provide you any assurance that we will be able to successfully identify or acquire additional product candidates, advance any of these additional product candidates through the development process, successfully commercialize any such additional product candidates, if approved, or assemble sufficient resources to identify, acquire, develop, or, if approved, commercialize additional product candidates. If we are

unable to successfully identify, acquire, develop, and commercialize additional product candidates, our commercial opportunity may be limited.

We may not be successful in our efforts to expand indications for approved product candidates.

Our drug development strategy is to clinically test and seek regulatory approval for our product candidates in indications in which we believe there is the most evidence that we will be able to quickly generate proof-of-concept data. We then intend to expand to clinical testing and seek regulatory approvals in other neurodegenerative indications based on genetic and mechanistic overlap with the primary indication. Conducting clinical trials for additional indications for our product candidates requires substantial technical, financial, and human resources and is prone to the risks of failure inherent in drug development. We cannot provide you any assurance that we will be successful in our effort to obtain regulatory approval for our product candidates for additional indications even if we obtain approval for an initial indication.

For example, our product candidate AL001 is initially targeting FTD-GRN patients. Following proof-of-concept data in FTD-GRN patients, we plan to expand AL001 to other indications associated with decreased levels of PGRN. If we are unable to successfully identify, develop, obtain regulatory approval for, and commercialize AL001 for other indications, our commercial opportunity for AL001 may be limited.

We have concentrated a substantial portion of our research and development efforts on the treatment of neurodegenerative diseases, a field that has seen limited success in drug development. Further, our product candidates are based on new approaches and novel technology, which makes it difficult to predict the time and cost of product candidate development and subsequently obtaining regulatory approval.

We have focused a substantial portion of our research and development efforts on addressing neurodegenerative diseases. Collectively, efforts by biopharmaceutical companies in the field of neurodegenerative diseases have seen limited success in drug development. There are few effective therapeutic options available for patients with FTD, Alzheimer's disease, Parkinson's disease, and other neurodegenerative diseases. Our future success is highly dependent on the successful development of our product candidates for treating neurodegenerative diseases. Developing and, if approved, commercializing our product candidates for treatment of neurodegenerative diseases subjects us to a number of challenges, including obtaining disease modifying activity and efficacious dose in target tissue and obtaining regulatory approval from the FDA and other regulatory authorities who have only a limited set of precedents to rely on.

Our approach to the treatment of neurodegenerative diseases aims to identify and select targets enriched in microglia and other myeloid immune cells which are genetically associated with neurodegenerative diseases, identify and develop product candidates that cross the blood brain barrier in sufficient quantity and potency to enable efficacious dosing in the brain and engage the intended target, identify and develop biomarkers that are signs of a disease or condition, to select the right patient population, and to demonstrate target engagement, pathway engagement, and impact on disease progression of our product candidates. This strategy may not prove to be successful. We cannot be sure that our approach will yield satisfactory therapeutic products that are safe and effective, scalable, or profitable.

We may encounter substantial delays in our clinical trials, or may not be able to conduct or complete our clinical trials on the timelines we expect, if at all.

Clinical testing is expensive, time consuming, and subject to uncertainty. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. We cannot be sure that submission of an investigational new drug application ("IND") or a clinical trial application ("CTA") will result in the FDA or European Medicines Agency ("EMA"), as applicable, allowing clinical trials to begin in a timely manner, if at all. Moreover, even if these trials begin, issues may arise that could suspend or terminate such clinical trials. A failure of one or more clinical trials can occur at any stage of testing, and our future clinical trials may not be successful. Events that may prevent successful or timely initiation or completion of clinical trials include:

- inability to generate sufficient preclinical, toxicology, or other in vivo or in vitro data to support the initiation or continuation of clinical trials;
- delays in confirming target engagement, patient selection, or other relevant biomarkers to be utilized in preclinical and clinical product candidate development;
- delays in reaching a consensus with regulatory agencies on study design;

- delays in reaching agreement on acceptable terms with prospective contract research organizations ("CROs") and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and clinical trial sites;
- delays in identifying, recruiting, and training suitable clinical investigators;
- delays in obtaining required Institutional Review Board ("IRB") approval at each clinical trial site;
- imposition of delays to clinical trials, including as a result of temporary or permanent clinical hold by regulatory agencies for a number of reasons, including:
    - after review of an IND or amendment, CTA or amendment, or equivalent application or amendment;
    - as a result of a new safety finding that presents unreasonable risk to clinical trial participants;
    - as a result of modifications to clinical trial protocols or related documentation;
    - a negative finding from an inspection of our clinical trial operations or study sites; or
    - the finding that the investigational protocol or plan is clearly deficient to meet its stated objectives;
- delays in identifying, recruiting, and enrolling suitable patients to participate in our clinical trials, and delays caused by patients withdrawing from clinical trials, or failing to return for post-treatment follow-up;
- difficulty collaborating with patient groups and investigators;
- failure by our CROs, other third parties, or us to adhere to clinical trial requirements;
- failure to perform in accordance with the FDA's or any other regulatory authority's current good clinical practices ("cGCPs") requirements, or applicable EMA or other regulatory guidelines in other countries;
- occurrence of adverse events associated with the product candidate that are viewed to outweigh its potential benefits;
- changes in regulatory requirements and guidance that require amending or submitting new clinical protocols;
- changes in the standard of care on which a clinical development plan was based, which may require new or additional trials;
- the cost of clinical trials of our product candidates being greater than we anticipate;
- clinical trials of our product candidates producing negative or inconclusive results, which may result in our deciding, or regulators requiring us, to conduct additional clinical trials or abandon product development programs; and
- delays in manufacturing, testing, releasing, validating, or importing/exporting sufficient stable quantities of our product candidates for use in clinical trials or the inability to do any of the foregoing.

Any inability to successfully initiate or complete clinical trials could result in additional costs to us or impair our ability to generate revenue. In addition, if we make manufacturing or formulation changes to our product candidates, we may be required to or we may elect to conduct additional studies to bridge our modified product candidates to earlier versions. Clinical trial delays could also shorten any periods during which our products have patent protection and may allow our competitors to bring products to market before we do, which could impair our ability to successfully commercialize our product candidates and may harm our business and results of operations.

We could also encounter delays if a clinical trial is suspended or terminated by us, by the data safety monitoring board for such trial or by the FDA, EMA, or any other regulatory authority, or if the IRBs of the institutions in which such trials are being conducted suspend or terminate the participation of their clinical investigators and sites subject to their review. Such authorities may suspend or terminate a clinical trial 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, EMA, 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 product candidate, changes in governmental regulations or administrative actions, or lack of adequate funding to continue the clinical trial.

We may in the future advance product candidates into clinical trials and terminate such trials prior to their completion, which could adversely affect our business.

Histopathological analysis of a 26-week toxicology study of AL002 in non-human primates identified minimal to marked granulomatous inflammation in the ciliary body and/or choroid of the eye. There were no other AL002- related gross or histopathological findings in this toxicology study in the retina or any other tissues or organs. We have observed no drug-related, serious adverse events in the AL002 Phase 1 trial with over 50 subjects. In response to FDA feedback, we have implemented additional ophthalmological assessments based on these preclinical study findings.

Thirty-eight (38) healthy subjects were dosed over eight dose cohorts in the AL003 Phase 1a dose escalation trial. One subject treated with the second highest dose experienced aseptic hip monoarthritis and a second subject treated with the highest dose experienced an adverse drug reaction characterized by rash, fever, and thrombocytopenia, which were both deemed treatment-related serious adverse events. The subjects were treated with corticosteroids and recovered. Alector has initiated screening for a Phase 1b study in Alzheimer's disease patients with doses.

Delays in the completion of any clinical trial of our product candidates will increase our costs, slow down our product candidate development and approval process and delay, or potentially jeopardize our ability to commence product sales and generate revenue. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

We may encounter difficulties enrolling patients in our clinical trials, and our clinical development activities could thereby be delayed or otherwise adversely affected.

The timely completion of clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of patients who remain in the trial until its conclusion. We may experience difficulties in patient enrollment in our clinical trials for a variety of reasons, including:

- the size and nature of the patient population;
- the patient eligibility criteria defined in the protocol, including biomarker-driven identification and/or certain highly-specific criteria related to stage of disease progression, which may limit the patient populations eligible for our clinical trials to a greater extent than competing clinical trials for the same indication that do not have biomarker-driven patient eligibility criteria;
- the size of the study population required for analysis of the trial's primary endpoints;
- the proximity of patients to a trial site;
- the design of the trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- competing clinical trials for similar therapies or targeting patient populations meeting our patient eligibility criteria;
- clinicians' and patients' perceptions as to the potential advantages and side effects of the product candidate being studied in relation to other available therapies and product candidates;
- our ability to obtain and maintain patient consents; and
- the risk that patients enrolled in clinical trials will not complete such trials, for any reason.

Our clinical trials may reveal significant adverse events, toxicities, or other side effects and may fail to demonstrate substantial evidence of the safety and efficacy of our product candidates, which would prevent, delay, or limit the scope of regulatory approval and commercialization.*

Before obtaining regulatory approvals for the commercial sale of any of our product candidates, we must demonstrate through lengthy, complex, and expensive preclinical studies and clinical trials that our product candidates are both safe and effective for use in each target indication. For those product candidates that are subject to regulation as biological drug 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 testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. The results of preclinical studies of our product candidates may not be predictive of the results of early-stage or later-stage clinical trials, and results of early clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials. The results of clinical trials in one set of patients or disease indications may not be predictive of those obtained in another. In some instances, there can be significant variability in safety or efficacy results between different clinical

trials of the same product candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the patient populations, changes in and adherence to the dosing regimen, and other clinical trial protocols and the rate of dropout among clinical trial participants. Open-label extension studies may also extend the timing and cost of a clinical test substantially. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy profile despite having progressed through preclinical studies and initial clinical trials. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or unacceptable safety issues, notwithstanding promising results in earlier trials. This is particularly true in neurodegenerative diseases, where failure rates historically have been higher than in many other disease areas. Most product candidates that begin clinical trials are never approved by regulatory authorities for commercialization.

We have limited experience in designing clinical trials and may be unable to design and execute a clinical trial to support marketing approval. We cannot be certain that our current clinical trials or any other future clinical trials will be successful. Additionally, any safety concerns observed in any one of our clinical trials in our targeted indications could limit the prospects for regulatory approval of our product candidates in those and other indications, which could have a material adverse effect on our business, financial condition, and results of operations.

In addition, even if such clinical trials are successfully completed, we cannot guarantee that the FDA or foreign regulatory authorities will interpret the results as we do, and more trials could be required before we submit our product candidates for approval. To the extent that the results of the trials are not satisfactory to the FDA or 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. Even if regulatory approval is secured for any of our product candidates, the terms of such approval may limit the scope and use of our product candidates, which may also limit its commercial potential.

We face significant competition in an environment of rapid technological and scientific change, and there is a possibility that our competitors may achieve regulatory approval before us or develop therapies that are safer, more advanced, or more effective than ours, which may negatively impact our ability to successfully market or commercialize any product candidates we may develop and ultimately harm our financial condition.

The development and commercialization of new drug products is highly competitive. Moreover, the neurodegenerative field is characterized by strong and increasing competition, and a strong emphasis on intellectual property. We may face competition with respect to any of our product candidates that we seek to develop or commercialize in the future from major pharmaceutical companies, specialty pharmaceutical companies, and biotechnology companies worldwide. Potential competitors also include academic institutions, government agencies, and other public and private research organizations that conduct research, seek patent protection, and establish collaborative arrangements for research, development, manufacturing, and commercialization.

There are a number of large pharmaceutical and biotechnology companies that are currently pursuing the development of products for the treatment of neurodegenerative diseases, including FTD and Alzheimer's disease. Many of these current or potential competitors, either alone or with their strategic partners, have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals, and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient, or are less expensive than any products that we may develop. Furthermore, currently approved products could be discovered to have application for treatment of neurodegenerative disease indications, which could give such products significant regulatory and market timing advantages over any of our product candidates. Our competitors also may obtain FDA, EMA, or other regulatory approval for their products more rapidly than we may obtain approval for ours and may obtain orphan drug exclusivity from the FDA for indications our product candidates are targeting, which could result in our competitors establishing a strong market position before we are able to enter the market. Additionally, products or technologies developed by our competitors may render our potential product candidates uneconomical or obsolete, and we may not be successful in marketing any product candidates we may develop against competitors.

In addition, we could face litigation or other proceedings with respect to the scope, ownership, validity, and/or enforceability of our patents relating to our competitors' products and our competitors may allege that our products infringe, misappropriate, or otherwise violate their intellectual property. The availability of our competitors' products could limit the demand, and the price we are able to charge, for any products that we may develop and commercialize.

The manufacture of our product candidates is complex, and we may encounter difficulties in production. If we or any of our third-party manufacturers encounter such difficulties, or fail to meet rigorously enforced regulatory standards, our ability to provide supply of our product candidates for clinical trials or our products for patients, if approved, could be delayed or stopped, or we may be unable to maintain a commercially viable cost structure.

The processes involved in manufacturing our drug and biological product candidates are complex, expensive, highly-regulated, and subject to multiple risks. Further, as product candidates are developed through preclinical studies to late-stage clinical trials towards approval and commercialization, it is common that various aspects of the development program, such as manufacturing methods, are altered along the way in an effort to optimize processes and results. Such changes carry the risk that they will not achieve these intended objectives, and any of these changes could cause our product candidates to perform differently and affect the results of planned clinical trials or other future clinical trials.

In order to conduct clinical trials of our product candidates, or supply commercial products, if approved, we will need to manufacture them in large quantities. Our CDMOs may be unable to successfully increase the manufacturing capacity for any of our product candidates in a timely or cost-effective manner, or at all. In addition, quality issues may arise during scale-up activities. If our CDMOs 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 become infeasible, and regulatory approval or commercial launch of any resulting product may be delayed or not obtained, which could significantly harm our business. The same risk would apply to our internal manufacturing facilities, should we in the future decide to build internal manufacturing capacity. In addition, building internal manufacturing capacity would carry significant risks in terms of being able to plan, design, and execute on a complex project to build manufacturing facilities in a timely and cost-efficient manner.

In addition, the manufacturing process for any products that we may develop is subject to FDA, EMA, and foreign regulatory authority approval processes, and continuous oversight, and we will need to contract with manufacturers who can meet all applicable FDA, EMA, and foreign regulatory authority requirements, including complying with current good manufacturing practices ("cGMPs") on an ongoing basis. If we or our third-party manufacturers are unable to reliably produce products to specifications acceptable to the FDA, EMA, or other regulatory authorities, we may not obtain or maintain the approvals we need to commercialize such products. Even if we obtain regulatory approval for any of our product candidates, there is no assurance that either we or our CDMOs will be able to manufacture the approved product to specifications acceptable to the FDA, EMA, or other regulatory authorities, to produce it in sufficient quantities to meet the requirements for the potential launch of the product, or to meet potential future demand. Any of these challenges could delay completion of clinical trials, require bridging clinical trials or the repetition of one or more clinical trials, increase clinical trial costs, delay approval of our product candidate, impair commercialization efforts, increase our cost of goods, and have an adverse effect on our business, financial condition, results of operations, and growth prospects.

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

We do not have a sales or marketing infrastructure and have no experience in the sale, marketing, or distribution of pharmaceutical products. To achieve commercial success for any approved product for which we retain sales and marketing responsibilities, we must either develop a sales and marketing organization or outsource these functions to third parties. In the future, we may choose to build a focused sales, marketing, and commercial support infrastructure to sell, or participate in sales activities with our collaborators for, some of our product candidates if and when they are approved.

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

Factors that may inhibit our efforts to commercialize any approved product on our own include:

- our inability to recruit and retain adequate numbers of effective sales, marketing, reimbursement, customer service, medical affairs, and other support personnel;
- the inability of sales personnel to obtain access to physicians or persuade adequate numbers of physicians to prescribe any future approved products;
- the inability of reimbursement professionals to negotiate arrangements for formulary access, reimbursement, and other acceptance by payors;

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

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

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

The commercial success of any of our product candidates will depend upon its degree of market acceptance by physicians, patients, third-party payors, and others in the medical community. Even if any product candidates we may develop receive marketing approval, they may nonetheless fail to gain sufficient market acceptance by physicians, patients, healthcare payors, and others in the medical community. The degree of market acceptance of any product candidates we may develop, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and safety of such product candidates as demonstrated in clinical trials and published in peer-reviewed journals;
- the potential and perceived advantages compared to alternative treatments;
- the ability to offer our products for sale at competitive prices;
- sufficient third-party coverage or reimbursement;
- the ability to offer appropriate patient access programs, such as co-pay assistance;
- the extent to which physicians recommend our products to their patients;
- convenience and ease of dosing and administration compared to alternative treatments;
- the clinical indications for which the product candidate is approved by FDA, EMA, or other regulatory agencies;
- product labeling or product insert requirements of the FDA, EMA, or other comparable foreign regulatory authorities, including any limitations, contraindications, or warnings contained in a product's approved labeling;
- restrictions on how the product is distributed;
- the timing of market introduction of competitive products;
- publicity concerning our products or competing products and treatments;
- the strength of marketing and distribution support; and
- the prevalence and severity of any side effects.

If any product candidates we develop do not achieve an adequate level of acceptance, we may not generate significant product revenue, and we may not become profitable.

Any products we commercialize may become subject to unfavorable pricing regulations, third-party reimbursement practices, or healthcare reform initiatives, which would harm our business.

The regulations that govern marketing approvals, pricing, and reimbursement for new drugs vary widely from country to country. In the United States, recently enacted legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals. Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay our commercial launch of the product, possibly for lengthy time periods, and negatively impact the revenue we are able to generate from the sale of the product in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more product candidates, even if any product candidates we may develop obtain marketing approval.

Our ability to successfully commercialize any products that we may develop also will depend in part on the extent to which reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers, and other organizations. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels. A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Government authorities currently impose mandatory discounts for certain patient groups, such as Medicare, Medicaid and Veterans Affairs hospitals, and may seek to increase such discounts at any time. Future regulation may negatively impact the price of our products, if approved. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. We cannot be sure that reimbursement will be available for any product candidate that we commercialize and, if reimbursement is available, the level of reimbursement. Reimbursement may impact the demand for, or the price of, any product candidate for which we obtain marketing approval. In order to get reimbursement, physicians may need to show that patients have superior treatment outcomes with our products compared to standard of care drugs, including lower-priced generic versions of standard of care drugs. If reimbursement is not available or is available only to limited levels, we may not be able to successfully commercialize any product candidate for which we obtain marketing approval. In the United States, no uniform policy of coverage and reimbursement for products exists among third-party payors and coverage and reimbursement levels for products can differ significantly from payor to payor. As a result, the coverage determination process is often a time consuming and costly process that may require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance.

There may be significant delays in obtaining reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the medicine is approved by the FDA, EMA, or other comparable foreign regulatory authorities. Moreover, eligibility for reimbursement does not imply that any drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale, and distribution. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Our inability to promptly obtain coverage and profitable payment rates from both government-funded and private payors for any approved products we may develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize product candidates, and our overall financial condition.

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

Even if we are successful in achieving regulatory approval to commercialize a product candidate ahead of our competitors, our product candidates may face competition from biosimilar products. In the United States, our product candidates are regulated by the FDA as biologic products and we intend to seek approval for these product candidates pursuant to the Biologics License Application ("BLA") pathway. The Biologics Price Competition and Innovation Act of 2009 ("BPCIA") created an abbreviated pathway for the approval of biosimilar and interchangeable biologic products. The abbreviated regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as "interchangeable" based on its similarity to an existing brand product. Under the BPCIA, an application for a biosimilar product cannot be approved by the FDA until 12 years after the original branded product was approved under a BLA. 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 a material adverse effect on the future commercial prospects for our product candidates.

We believe that any of our product candidates approved as a biologic product under a BLA should qualify for the 12-year period of exclusivity. However, there is a risk 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. Moreover, the extent to which a biosimilar product, once approved, will be substituted for any one of our reference products in a way that is similar to traditional generic substitution for non-biologic products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing. In addition, a competitor could decide to forego the biosimilar approval path and submit a full BLA after completing its own preclinical studies and clinical trials. In such cases, any exclusivity to which we may be eligible under the BPCIA would not prevent the competitor from marketing its product as soon as it is approved.

In Europe, the European Commission has granted marketing authorizations for several biosimilar products pursuant to a set of general and product class-specific guidelines for biosimilar approvals issued over the past few years. In Europe, a competitor may reference data supporting approval of an innovative biological product, but will not be able to get it on the market until 10 years after the time of approval of the innovative product. This 10-year marketing exclusivity period will be extended to 11 years if, during the first eight of those 10 years, the marketing authorization holder obtains an approval for one or more new therapeutic indications that bring significant clinical benefits compared with existing therapies. In addition, companies may be developing biosimilar products in other countries that could compete with our products, if approved.

If competitors are able to obtain marketing approval for biosimilars referencing our product candidates, if approved, such products may become subject to competition from such biosimilars, with the attendant competitive pressure and potential adverse consequences. Such competitive products may be able to immediately compete with us in each indication for which our product candidates may have received approval.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of our product candidates.

We face an inherent risk of product liability as a result of the clinical testing of our product candidates and will face an even greater risk when and if we commercialize any products. For example, we may be sued if our product candidates cause or are perceived to cause injury or are found to be otherwise unsuitable during clinical testing, manufacturing, marketing, or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability, or a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit testing and commercialization of our product candidates. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased or interrupted demand for our products;
- injury to our reputation;
- withdrawal of clinical trial participants and inability to continue clinical trials;
- initiation of investigations by regulators;
- costs to defend the related litigation;
- a diversion of management’s time and our resources;
- substantial monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing, or promotional restrictions;
- loss of revenue;
- exhaustion of any available insurance and our capital resources; and
- the inability to commercialize any product candidate.

Our inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of products we develop, alone or with collaborators. Our insurance policies may have various exclusions, and we may be subject to a product liability claim for which we have no coverage. We may have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts. Even if our agreements with any future corporate collaborators entitle us to indemnification against losses, such indemnification may not be available or adequate should any claim arise.

Risks Related to Regulatory Approval and Other Legal Compliance Matters

The regulatory approval processes of the FDA, EMA, and comparable foreign regulatory authorities are lengthy, time consuming, and inherently unpredictable. If we are ultimately unable to obtain regulatory approval for our product candidates, we will be unable to generate product revenue and our business will be substantially harmed.

The time required to obtain approval by the FDA, EMA, and comparable foreign regulatory authorities is unpredictable, typically takes many years following the commencement of clinical trials, and depends upon numerous factors, including the type, complexity, and novelty of the product candidates involved. In addition, approval policies, regulations, or 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, which may cause delays in the approval or the decision not to approve an application. Regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data are insufficient for approval and require additional preclinical, clinical, or other studies. We have not submitted for, or obtained regulatory approval for any product candidate, and it is possible that none of our existing product candidates or any product candidates we may seek to develop in the future will ever obtain regulatory approval.

Further, development of our product candidates and/or regulatory approval may be delayed for reasons beyond our control. For example, a U.S. federal government shutdown or budget sequestration, such as ones that occurred during 2013, 2018, and 2019, may result in significant reductions to the FDA's budget, employees, and operations, which may lead to slower response times and longer review periods, potentially affecting our ability to progress development of our product candidates or obtain regulatory approval for our product candidates.

Applications for our product candidates could fail to receive regulatory approval in an initial or subsequent indication for many reasons, including but not limited to the following:

- the FDA, EMA, or comparable foreign regulatory authorities may disagree with the design, implementation, or results of our clinical trials;
- the FDA, EMA, or comparable foreign regulatory authorities may determine that our product candidates are not safe and effective, only moderately effective or have undesirable or unintended side effects, toxicities, or other characteristics that preclude our obtaining marketing approval or prevent or limit commercial use;
- the population studied in the clinical program may not be sufficiently broad or representative to assure efficacy and safety in the full population for which we seek approval;
- we may be unable to demonstrate to the FDA or comparable foreign regulatory authorities that a product candidate's risk-benefit ratio when compared to the standard of care is acceptable;
- the FDA, EMA, or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of our product candidates may not be sufficient to support the submission of a new drug application ("NDA"), BLA, or other submission or to obtain regulatory approval in the United States or elsewhere;
- we may be unable to demonstrate to the FDA, EMA, or comparable foreign regulatory authorities that a product candidate's risk-benefit ratio for a proposed indication is acceptable;
- the FDA, EMA, or comparable foreign regulatory authorities may fail to approve the manufacturing processes, test procedures, and specifications, or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and
- the approval policies or regulations of the FDA, EMA, or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

This lengthy approval process, as well as the unpredictability of the results of clinical trials, may result in our failing to obtain regulatory approval to market any of our product candidates, which would significantly harm our business, results of operations, and prospects.

Our product candidates may cause undesirable side effects or have other properties that could halt their clinical development, prevent their regulatory approval, limit their commercial potential, or result in significant negative consequences.

Adverse events or other undesirable side effects caused by our product candidates could cause us or regulatory authorities to interrupt, delay, or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA, EMA, or other comparable foreign regulatory authorities.

Drug-related side effects could affect patient recruitment, the ability of enrolled patients to complete the study, and/or result in potential product liability claims. We are required to maintain product liability insurance pursuant to certain of our development and commercialization agreements. We may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. A successful product liability claim or series of claims brought against us could adversely affect our results of operations, business, and reputation. In addition, regardless of merit or eventual outcome, product liability claims may result in impairment of our business reputation, withdrawal of clinical trial participants, costs due to related litigation, distraction of management's attention from our primary business, initiation of investigations by regulators, substantial monetary awards to patients or other claimants, the inability to commercialize our product candidates, and decreased demand for our product candidates, if approved for commercial sale.

Additionally, if one or more of our product candidates receives marketing approval, and we or others later identify undesirable side effects or adverse events caused by such products, a number of potentially significant negative consequences could result, including but not limited to:

- regulatory authorities may withdraw approvals of such product and cause us to recall our products;
- regulatory authorities may require additional warnings on the label;
- we may be required to change the way the product is administered or conduct additional clinical trials or post-approval studies;
- we may be required to create a Risk Evaluation and Mitigation Strategy plan, which could include a medication guide outlining the risks of such side effects for distribution to patients, a communication plan for healthcare providers, and/or other elements, such as boxed warning on the packaging, to assure safe use;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate, if approved, and could significantly harm our business, financial condition, results of operations, and growth prospects.

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

We may in the future choose to conduct one or more of our clinical trials outside the United States, including in Europe or Australia. The acceptance of study data from clinical trials conducted outside the United States or another jurisdiction by the FDA, EMA, or applicable foreign regulatory authority may be subject to certain conditions. In cases where data from foreign clinical trials are intended to serve as the basis for marketing approval in the United States, the FDA will generally not approve the application on the basis of foreign data alone unless (i) the data are applicable to the United States population and United States medical practice; and (ii) the trials were performed by clinical investigators of recognized competence and pursuant to cGCP regulations. 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, EMA, or any applicable foreign regulatory authority will accept data from trials conducted outside of the United States or the applicable jurisdiction. If the FDA, EMA, or any applicable 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.

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

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

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

Even if we obtain regulatory approval for a product candidate, our products will remain subject to extensive regulatory scrutiny.

If any of our product candidates are approved, they will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping, conduct of post-marketing studies, and submission of safety, efficacy, and other post-market information, including both federal and state requirements in the United States and requirements of comparable foreign regulatory authorities.

Manufacturers and manufacturers' facilities are required to comply with extensive requirements imposed by the FDA, EMA, and comparable foreign regulatory authorities, including ensuring that quality control and manufacturing procedures conform to cGMP regulations. As such, we and our contract manufacturers will be subject to continual review and inspections to assess compliance with cGMP and adherence to commitments made in any NDA, BLA, or marketing authorization application ("MAA"). Accordingly, we and others with whom we work must continue to expend time, money, and effort in all areas of regulatory compliance, including manufacturing, production, and quality control.

Any regulatory approvals that we receive for our product candidates will be subject to limitations on the approved indicated uses for which the product may be marketed and promoted or to the conditions of approval (including the requirement to implement a Risk Evaluation and Mitigation Strategy), or contain requirements for potentially costly post-marketing testing. We will be required to report certain adverse reactions and production problems, if any, to the FDA, EMA, and comparable foreign regulatory authorities. Any new legislation addressing drug safety issues could result in delays in product development or commercialization, or increased costs to assure compliance. The FDA and other agencies, including the Department of Justice, closely regulate and monitor the post-approval marketing and promotion of products to ensure that they are manufactured, marketed, and distributed only for the approved indications and in accordance with the provisions of the approved labeling. We will have to comply with requirements concerning advertising and promotion for our products. Promotional communications with respect to prescription drugs 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 may not promote our products for indications or uses for which they do not have approval. The holder of an approved NDA, BLA, or MAA must submit new or supplemental applications and obtain approval for certain changes to the approved product, product labeling, or manufacturing process. We could also be asked to conduct post-marketing clinical trials to verify the safety and efficacy of our products in general or in specific patient subsets. If original marketing approval was obtained via the accelerated approval pathway, we could be required to conduct a successful post-marketing clinical trial to confirm clinical benefit for our products. An unsuccessful post-marketing study or failure to complete such a study could result in the withdrawal of marketing approval.

If a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, or disagrees with the promotion, marketing or labeling of a product, such regulatory agency may impose restrictions on that product or us, including requiring withdrawal of the product from the market. If we fail to comply with applicable regulatory requirements, a regulatory agency or enforcement authority may, among other things:

- issue warning letters that would result in adverse publicity;
- impose civil or criminal penalties;
- suspend or withdraw regulatory approvals;
- suspend any of our ongoing clinical trials;
- refuse to approve pending applications or supplements to approved applications submitted by us;
- impose restrictions on our operations, including closing our contract manufacturers' facilities;
- seize or detain products; or
- require a product recall.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. Any failure to comply with ongoing regulatory requirements may significantly and adversely affect our ability to commercialize and generate revenue from our products. If regulatory sanctions are applied or if regulatory approval is withdrawn, the value of our company and our operating results will be adversely affected.

We have received orphan drug designation from the FDA for AL001 and AL101 for treatment of FTD and plan to seek orphan drug designation for some of our other product candidates, but we may be unable to obtain such designations or to maintain the benefits associated with orphan drug status, including market exclusivity, which may cause our revenue, if any, to be reduced.

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biologic intended to treat a rare disease or condition, defined as a disease or condition with a patient population of fewer than 200,000 in the United States, or a patient population greater than 200,000 in the United States when there is no reasonable expectation that the cost of developing and making available the drug or biologic in the United States will be recovered from sales in the United States for that drug or biologic. Orphan drug designation must be requested before submitting an NDA or BLA. In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages, and user-fee waivers. After the FDA grants orphan drug designation, the generic identity of the drug and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. While we have obtained orphan drug designation from the FDA for AL001 and AL101 for treatment of FTD, we may be unable to reap the benefits associated with orphan drug status. In addition, we plan to seek orphan drug designations for some of our other product candidates in the future but may be unable to obtain an orphan drug designation for any additional product candidates.

If a product that has orphan drug designation subsequently receives the first FDA approval for a particular active ingredient for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other NDA or BLA applications to market the same drug or biologic for the same indication for seven years, except in limited circumstances such as a showing of clinical superiority to the product with orphan exclusivity or if FDA finds that the holder of the orphan exclusivity has not shown that it can assure 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. As a result, even though the FDA has approved orphan drug status for AL001 and AL101 for treatment of FTD, the FDA can still approve other drugs that have a different active ingredient for use in treating the same indication or disease. Furthermore, the FDA can waive orphan exclusivity if we are unable to manufacture sufficient supply of our product.

Healthcare legislative measures aimed at reducing healthcare costs may have a material adverse effect on our business and results of operations.

Third-party payors, whether domestic or foreign, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory changes to the healthcare system that could impact our ability to sell our products profitably. In particular, in 2010, the Patient Protection and Affordable Care Act, or Affordable Care Act ("ACA") was enacted, which, among other things, subjected biologic products to potential competition by lower-cost biosimilars, addressed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted, or injected, increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program, extended the Medicaid Drug Rebate Program to utilization of prescriptions of individuals enrolled in Medicaid managed care organizations, subjected manufacturers to new annual fees and taxes for certain branded prescription drugs, and provided incentives to programs that increase the federal government's comparative effectiveness research. The U.S. administration could repeal or change some or all of the ACA, and complying with any new legislation or reversing changes implemented under the ACA could be time-intensive and expensive, resulting in a material adverse effect on our business. Until the ACA is fully implemented or there is more certainty concerning the future of the ACA, it will be difficult to predict its full impact and influence on our business.

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

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

We expect that the ACA, as well as other healthcare reform measures that may be adopted in the future, may result in additional reductions in Medicare and other healthcare funding, more rigorous coverage criteria, lower reimbursement, and new payment methodologies. This could lower the price that we receive for any approved product. Any denial in coverage or reduction in reimbursement from Medicare or other government-funded programs may result in a similar denial or reduction in payments from private payors, which may prevent us from being able to generate sufficient revenue, attain profitability, or commercialize our product candidates, if approved.

Our employees, independent contractors, consultants, commercial partners, and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk of fraud, misconduct, or other illegal activity by our employees, independent contractors, consultants, commercial partners, and vendors. Misconduct by these parties could include intentional, reckless, and negligent conduct that fails to:

- comply with the laws of the FDA, EMA, and other comparable foreign regulatory authorities;
- provide true, complete, and accurate information to the FDA, EMA, and other comparable foreign regulatory authorities;
- comply with manufacturing standards we have established;
- comply with healthcare fraud and abuse laws in the United States and similar foreign fraudulent misconduct laws; or
- report financial information or data accurately or to disclose unauthorized activities to us.

If we obtain FDA approval of any of our product candidates and begin commercializing those products in the United States, our potential exposure under such laws will increase significantly, and our costs associated with compliance with such laws are also likely to increase. In particular, research, sales, marketing, education, and other business arrangements in the healthcare industry are subject to extensive laws designed to prevent fraud, kickbacks, self-dealing, and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, educating, marketing and promotion, sales and commission, certain customer incentive programs, and other business arrangements generally. Activities subject to these laws also involve the improper use of information obtained in the course of patient recruitment for clinical trials, which could result in regulatory sanctions and cause serious harm to our reputation. We have adopted a code of business conduct and ethics, but it is not always possible to identify and deter misconduct by employees and third parties, 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. 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 fines or other sanctions.

If we fail to comply with healthcare laws, we could face substantial penalties and our business, operations, and financial conditions could be adversely affected.

If we obtain FDA approval for any of our product candidates and begin commercializing those products in the United States, our operations will be subject to various federal and state fraud and abuse laws. The laws that may impact our operations include the following:

- The federal Anti-Kickback Statute, prohibits, among other things, persons 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, to induce, or in return for, either the referral of an individual, or the purchase, lease, order, or recommendation of 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. 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. 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 False Claims Act.
- Federal civil and criminal false claims laws and civil monetary penalty laws, including the False Claims Act, impose criminal and civil penalties, including through civil “qui tam” or “whistleblower” actions, against individuals or entities from knowingly presenting, or causing to be presented, claims for payment or approval from Medicare, Medicaid, or other third-party payors that are false or fraudulent or knowingly making a false statement to improperly avoid, decrease, or conceal an obligation to pay money to the federal government. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of these statutes or specific intent to violate them in order to have committed a violation.

- The federal Health Insurance Portability and Accountability Act of 1996 ("HIPAA") created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private) and knowingly and willfully falsifying, concealing, or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters.
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 ("HITECH") and their respective implementing regulations, impose requirements on certain covered healthcare providers, health plans, and healthcare clearinghouses as well as their respective business associates that perform services for them that involve the use, or disclosure of, individually identifiable health information, relating to the privacy, security, and transmission of individually identifiable health information without appropriate authorization.
- The federal Physician Payment Sunshine Act, created under the ACA, and its implementing regulations, require manufacturers of drugs, devices, biologicals, and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program to report annually to the U.S. Department of Health and Human Services under the Open Payments Program, information related to payments or other transfers of value made to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members.
- Federal consumer protection and unfair competition laws broadly regulate marketplace activities and activities that potentially harm consumers.
- Analogous state and foreign laws and regulations, such as state and foreign anti-kickback, false claims, consumer protection, and unfair competition laws may apply to pharmaceutical business practices, including but not limited to, research, distribution, sales and marketing arrangements, as well as submitting claims involving healthcare items or services reimbursed by any third-party payer, including commercial insurers.
- State laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines, and the relevant compliance guidance promulgated by the federal government that otherwise restricts payments that may be made to healthcare providers and other potential referral sources.
- State laws also require drug manufacturers to file reports with states regarding pricing and marketing information, such as the tracking and reporting of gifts, compensations and other remuneration, and items of value provided to healthcare professionals and entities.
- State and foreign laws also govern the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available, it is possible that some of our business activities could, despite our efforts to comply, be subject to challenge under one or more of such laws. Efforts to ensure that our business arrangements will comply with applicable healthcare laws may involve substantial costs. It is possible that governmental and enforcement authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws and 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 civil, criminal, and administrative penalties, damages, disgorgement, monetary fines, possible exclusion from participation in Medicare, Medicaid, and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations. In addition, the approval and commercialization of any of our product candidates outside the United States will also likely subject us to foreign equivalents of the healthcare laws mentioned above, among other foreign laws.

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 have a material adverse effect on 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 and radioactive 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 have a material adverse effect on our business, financial condition, results of operations, and prospects.

Inadequate funding for the FDA and other government agencies could hinder our 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 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 to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. In the past, the U.S. government has experienced budgetary shutdowns and certain regulatory agencies, such as the FDA, have had to furlough critical FDA 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. Further, in our operations as a public company, future government shutdowns could impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

Our business activities may be subject to the Foreign Corrupt Practices Act ("FCPA") and similar anti-bribery and anti-corruption laws.

Our business activities may be subject to the FCPA and similar anti-bribery or anti-corruption laws, regulations or rules of other countries in which we operate, including the U.K. Bribery Act. The FCPA generally prohibits offering, promising, giving, or authorizing others to give anything of value, either directly or indirectly, to a non-U.S. 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-U.S. 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 are subject to regulation under the FCPA. Recently the Securities and Exchange Commission ("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, 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 our facilities, 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 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.

Risks Related to Our Reliance on Third Parties

We expect to depend on collaborations with third parties for the research, development, and commercialization of certain of the product candidates we may develop. If any such collaborations are not successful, we may not be able to realize the market potential of those product candidates.

We currently use and expect to continue to use third-party collaborators for the research, development, and commercialization of certain of the product candidates we may develop. For example, we have entered into the Co-Development and Option Agreement with AbbVie (the "AbbVie Agreement") for the global development and potential commercialization of AL002 and AL003. We also collaborate with Adimab and others to further our development of product candidates and to enhance our research efforts directed to

better understanding neurodegenerative diseases. Our likely collaborators for any other collaboration arrangements include large and mid-size pharmaceutical companies, regional and national pharmaceutical companies, biotechnology companies, and academic institutions. Such arrangements with any third parties, generally provide us with shared or limited control over the amount and timing of resources that our collaborators dedicate to the development or potential commercialization of any product candidates we may seek to develop with them. Our ability to generate revenue from these arrangements with commercial entities will depend on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements. We cannot predict the success of any collaboration that we enter into.

Collaborations involving our research programs, or any product candidates we may develop, pose the following risks to us:

- collaborators generally have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not properly obtain, maintain, enforce, or defend intellectual property or proprietary rights relating to our product candidates or research programs or may use our proprietary information in such a way as to expose us to potential litigation or other intellectual property related proceedings, including proceedings challenging the scope, ownership, validity, and enforceability of our intellectual property;
- collaborators may own or co-own intellectual property covering our product candidates or research and development programs that results from our collaboration with them, and in such cases, we may not have the exclusive right to commercialize such intellectual property or such product candidates or research programs;
- we may need the cooperation of our collaborators to enforce or defend any intellectual property we contribute to or that arises out of our collaborations, which may not be provided to us;
- collaborators may control certain interactions with regulatory authorities, which may impact our ability to obtain and maintain regulatory approval of our product candidates;
- disputes may arise between the collaborators and us that result in the delay or termination of the research, development, or commercialization of our product candidates or research programs or that result in costly litigation or arbitration that diverts management attention and resources;
- collaborators may decide to not pursue development and commercialization of any product candidates we develop or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborator's strategic focus or available funding or external factors such as an acquisition that diverts resources or creates competing priorities or collaborators may elect to fund or commercialize a competing product;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials, or require a new formulation of a product candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our product candidates or research programs if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- collaborators may restrict us from researching, developing, or commercializing certain products or technologies without their involvement;
- collaborators with marketing and distribution rights to one or more product candidates may not commit sufficient resources to the marketing and distribution of such product candidates;
- we may lose certain valuable rights under circumstances identified in our collaborations, including if we undergo a change of control;
- collaborators may grant sublicenses to our technology or product candidates or undergo a change of control, and the sublicensees or new owners may decide to take the collaboration in a direction which is not in our best interest;
- collaborators may become bankrupt, which may significantly delay our research or development programs, or may cause us to lose access to valuable technology, know-how, or intellectual property of the collaborator relating to our products, product candidates, or research programs;
- key personnel at our collaborators may leave, which could negatively impact our ability to productively work with our collaborators;
- collaborations may require us to incur short and long-term expenditures, issue securities that dilute our stockholders, or disrupt our management and business;

- if our collaborators do not satisfy their obligations under our agreements with them, or if they terminate our collaborations with them, we may not be able to develop or commercialize product candidates as planned;
- collaborations may require us to share in development and commercialization costs pursuant to budgets that we do not fully control, and our failure to share in such costs could have a detrimental impact on the collaboration or our ability to share in revenue generated under the collaboration;
- collaborations may be terminated in their entirety or with respect to certain product candidates or technologies and, if so terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates or technologies; and
- collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner or at all. If a present or future collaborator of ours were to be involved in a business combination, the continued pursuit and emphasis on our development or commercialization program under such collaboration could be delayed, diminished, or terminated.

We may face significant competition in seeking appropriate collaborations. Recent business combinations among biotechnology and pharmaceutical companies have resulted in a reduced number of potential collaborators. In addition, the negotiation process is time-consuming and complex, and we may not be able to negotiate 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 the product candidate for which we are seeking to collaborate, 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 product candidates or bring them to market and generate product revenue.

We may not realize the benefit of collaborations if we or our collaborator elects not to exercise the rights granted under the agreement or if we or our collaborator are unable to successfully integrate a product candidate into existing operations and company culture. In addition, if our agreement with any of our collaborators terminates, our access to technology and intellectual property licensed to us by that collaborator may be restricted or terminate entirely, which may delay our continued development of our product candidates utilizing the collaborator's technology or intellectual property or require us to stop development of those product candidates completely. We may also find it more difficult to find a suitable replacement collaborator or attract new collaborators, and our development programs may be delayed or the perception of us in the business and financial communities could be adversely affected. Many of the risks relating to product development, regulatory approval, and commercialization described in this "Risk Factors" section also apply to the activities of our collaborators and any negative impact on our collaborators may adversely affect us.

We expect to rely on third parties to conduct our clinical trials and some aspects of our research and preclinical testing, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials, research, or testing.

We currently rely and expect to continue to rely on third parties, such as CROs, clinical data management organizations, medical institutions, and clinical investigators, to conduct some aspects of our research and preclinical testing and our clinical trials. Any of these third parties may terminate their engagements with us or be unable to fulfill their contractual obligations. If we need to enter into alternative arrangements, it would delay our product development activities.

Our reliance on these third parties for research and development activities reduces our control over these activities but does not relieve us of our responsibilities. For example, we remain responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. Moreover, the FDA requires us to comply with cGCPs for conducting, recording, and reporting the results of clinical trials to assure that data and reported results are credible, reproducible, and accurate and that the rights, integrity, and confidentiality of trial participants are protected. We also are required to register ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database within certain timeframes. Failure to do so can result in fines, adverse publicity, and civil and criminal sanctions.

If these third parties do not successfully carry out their contractual duties, meet expected deadlines, or conduct our clinical trials in accordance with regulatory requirements or our stated protocols, we will not be able to obtain, or may be delayed in obtaining, marketing approvals for any product candidates we may develop and will not be able to, or may be delayed in our efforts to, successfully commercialize our medicines.

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

We contract with third parties for the manufacture of materials for our research programs, preclinical studies, clinical trials, and for commercialization of any product candidates that we may develop. This reliance on third parties carries and may increase the risk that we will not have sufficient quantities of such materials, product candidates, or any medicines that we may develop and commercialize, or that such supply will not be available to us at an acceptable cost, which could delay, prevent, or impair our development or commercialization efforts.

We do not have any manufacturing facilities. We currently rely on CDMOs for the manufacture of our materials for preclinical studies and clinical trials and expect to continue to do so for preclinical studies, clinical trials, and for commercial supply of any product candidates that we may develop. We currently have established relationships with several CDMOs for the manufacturing of our product candidates, including Lonza Biologics for the manufacturing of AL001 and AL002, Celonic AG for the manufacturing of AL003, and EMD Millipore Corporation for the manufacturing of AL101.

We may be unable to establish any further agreements with CDMOs or to do so on acceptable terms. Even if we are able to establish agreements with third-party manufacturers, reliance on CDMOs entails additional risks, including:

- the possible breach of the manufacturing agreement by the third party;
- the possible termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us;
- reliance on the third party for regulatory compliance, quality assurance, safety, and pharmacovigilance and related reporting; and
- the inability to produce required volume in a timely manner and to quality standards.

Third-party manufacturers may not be able to comply with cGMP regulations or similar regulatory requirements outside the United States. Our failure, or the failure of our CDMOs, to comply with applicable regulations could result in clinical holds on our trials, sanctions being imposed on us, including fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocations, seizures, or recalls of product candidates or medicines, operating restrictions, and criminal prosecutions, any of which could significantly and adversely affect supplies of our medicines and harm our business, financial condition, results of operations, and prospects.

Any medicines 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.

Any performance failure on the part of our existing or future third-party manufacturers could delay clinical development or marketing approval. If any one of our current contract manufacturers cannot perform as agreed, we may be required to replace that manufacturer and may incur added costs and delays in identifying and qualifying any such replacement. Furthermore, securing and reserving production capacity with contract manufacturers may result in significant costs.

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

We depend on third-party suppliers for key raw materials used in our manufacturing processes, and the loss of these third-party suppliers or their inability to supply us with adequate raw materials could harm our business.

We rely on third-party suppliers for the supply of the raw materials required for the production of our product candidates, and we expect to continue to rely on third-party manufacturers for the commercial supply of any of our product candidates for which we obtain marketing approval. Our dependence on these third-party suppliers and the challenges we may face in obtaining adequate supplies of raw materials involve several risks, including limited control over pricing, availability, quality, and delivery schedules. As a small company, our negotiation leverage is limited, and we are likely to get lower priority than our competitors who are larger than we are. We do not have long-term supply agreements, and we purchase our required drug product on a development manufacturing services agreement or purchase order basis. We cannot be certain that our suppliers will continue to provide us with the quantities of these raw materials that we require or satisfy our anticipated specifications and quality requirements. Any supply interruption in

limited or sole sourced raw materials could materially harm our ability to manufacture our product candidates until a new source of supply, if any, could be identified and qualified. We may be unable to find a sufficient alternative supply channel in a reasonable time or on commercially reasonable terms. Any performance failure on the part of our suppliers could delay the development and potential commercialization of our product candidates, including limiting supplies necessary for clinical trials and regulatory approvals, which would have a material adverse effect on our business.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain patent protection for any product candidates we develop, our competitors could develop and commercialize products similar or identical to ours, and our ability to successfully commercialize any product candidates we may develop may be adversely affected.

Our success depends in large part on our ability to obtain and maintain patent protection in the United States and other countries with respect to our proprietary product candidates and other technologies we may develop. We seek to protect our proprietary position by filing patent applications in the United States and abroad relating to our core programs and product candidates, as well as other technologies that are important to our business. Given that the development of our product candidates is at an early stage, our intellectual property portfolio with respect to certain aspects of our product candidates is also at an early stage. For example, we have filed or intend to file patent applications on aspects of our technology and core product candidates; however, there can be no assurance that any such patent applications will issue as granted patents. Furthermore, in some cases, we have only filed provisional patent applications on certain aspects of our technology and product candidates and each of these provisional patent applications is not eligible to become an issued patent until, among other things, we file a non-provisional patent application within 12 months of the filing date of the applicable provisional patent application. Any failure to file a non-provisional patent application within this timeline could cause us to lose the ability to obtain patent protection for the inventions disclosed in the associated provisional patent applications. Furthermore, in some cases, we may not be able to obtain issued claims covering compositions relating to our core programs and product candidates, as well as other technologies that are important to our business, and instead may need to rely on filing patent applications with claims covering a method of use and/or method of manufacture for protection of such core programs, product candidates, and other technologies. There can be no assurance that any such patent applications will issue as granted patents, and even if they do issue, such patent claims may be insufficient to prevent third parties, such as our competitors, from utilizing our technology. Any failure to obtain or maintain patent protection with respect to our core programs and product candidates could have a material adverse effect on our business, financial condition, results of operations, and prospects.

If any of our patent applications, or those of our collaborators, do not issue as patents in any jurisdiction, we may not be able to compete effectively.

Changes in either the patent laws or their interpretation in the United States and other countries may diminish our ability to protect our inventions, obtain, maintain, and enforce our intellectual property rights and, more generally, could affect the value of our intellectual property or narrow the scope of our patents or those of our collaborators with respect to our product candidates. With respect to both our intellectual property and that of our collaborators related to our product candidates, we cannot predict whether the patent applications we and our collaborators are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient protection from competitors or other third parties.

The patent prosecution process is expensive, time-consuming, and complex, and we or our collaborators may not be able to file, prosecute, maintain, enforce, or license all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output in time to obtain patent protection. Although we enter into nondisclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development output, such as our employees, corporate collaborators, outside scientific collaborators, CROs, CDMOs, consultants, advisors, and other third parties, any of these parties may breach the agreements and disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection. In addition, our ability to obtain and maintain valid and enforceable patents depends on whether the differences between our inventions and the prior art allow our inventions to be patentable over the prior art. Furthermore, publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot be certain that we or our collaborators were the first to make the inventions claimed in any of our or our collaborators' patents or pending patent applications, or that we or our collaborators were the first to file for patent protection of such inventions.

If the scope of any patent protection we obtain is not sufficiently broad, or if we lose any of our patent protection, our ability to prevent our competitors from commercializing similar or identical technology and product candidates would be adversely affected.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions, and has been the subject of much litigation in recent years. As a result, the issuance, scope, validity, enforceability, and commercial value of our patent rights are highly uncertain. Our or our collaborators' pending and future patent applications may not result in patents being issued which protect our product candidates or other technologies or which effectively prevent others from commercializing competitive technologies and product candidates.

Moreover, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted after issuance. Even if patent applications we or our collaborators license or own currently or in the future issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors or other third parties from competing with us, or otherwise provide us with any competitive advantage. Any patents to which we or our collaborators have rights may be challenged, narrowed, circumvented, or invalidated by third parties. Consequently, we do not know whether product candidates or other technologies will be protectable or remain protected by valid and enforceable patents. Our competitors or other third parties may be able to circumvent our patents by developing similar or alternative technologies or products in a non-infringing manner which could materially adversely affect our business, financial condition, results of operations and prospects.

The issuance of a patent is not conclusive as to its inventorship, scope, validity, or enforceability, and our patents may be challenged in the courts or patent offices in the United States and abroad. We or our collaborators may be subject to a third-party preissuance submission of prior art to the United States Patent and Trademark Office ("USPTO") or become involved in opposition, derivation, revocation, reexamination, post-grant and *inter partes* review, or interference proceedings or other similar proceedings challenging our or our collaborators' patent rights. An adverse determination in any such submission, proceeding, or litigation could reduce the scope of, or invalidate or render unenforceable, such patent rights, allow third parties to commercialize our product candidates or other technologies and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. Moreover, we, or one of our collaborators, may have to participate in interference proceedings declared by the USPTO to determine priority of invention or in post-grant challenge proceedings, such as oppositions in a foreign patent office, that challenge our or our collaborators' priority of invention or other features of patentability with respect to our or our collaborators' patents and patent applications. Such challenges may result in loss of patent rights, loss of exclusivity, or in patent claims being narrowed, invalidated, or held unenforceable, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our product candidates and other technologies. Such proceedings also may result in substantial cost and require significant time from our scientists and management, even if the eventual outcome is favorable to us. If we or our collaborators are unsuccessful in any such proceeding or other priority or inventorship dispute, we may be required to obtain and maintain licenses from third parties, including parties involved in any such interference proceedings or other priority or inventorship disputes. Such licenses may not be available on commercially reasonable terms or at all, or may be non-exclusive. If we are unable to obtain and maintain such licenses, we may need to cease the development, manufacture, and commercialization of one or more of the product candidates we may develop. The loss of exclusivity or the narrowing of our owned and licensed patent claims could limit our ability to stop others from using or commercializing similar or identical technology and products.

In addition, given the amount of time required for the development, testing, and regulatory review of new product candidates, patents protecting such product candidates might expire before or shortly after such product candidates are commercialized. As a result, our intellectual property may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

Some of our patents and patent applications may in the future be co-owned with third parties. In addition, collaborators or future licensors may co-own their patents and patent applications with other third parties with whom we do not have a direct relationship. Our rights to certain of these patents and patent applications may be dependent, in part, on inter-institutional or other operating agreements between the joint owners of such patents and patent applications, who are not parties to our license agreements. If our collaborators or future licensors do not have exclusive control of the grant of licenses under any such third-party co-owners' interest in such patents or patent applications or we are otherwise unable to secure such exclusive rights, such co-owners may be able to license their rights to other third parties, including our competitors, and our competitors could market competing products and technology to the extent such products and technology are not also covered by our intellectual property. In addition, we may need the cooperation of any such co-owners of our patents in order to enforce such patents against third parties, and such cooperation may not be provided to us. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

Our rights to develop and commercialize our product candidates are subject, in part, to the terms and conditions of agreements with others.

We are heavily reliant upon option rights to certain patent rights and proprietary technology from third parties that are important or necessary to the development of our product candidates and are subject to the terms and conditions of certain collaboration agreements with third parties. For example, in 2013 we entered into the Adimab Collaboration Agreement with Adimab. Under the Adimab Collaboration Agreement, we are developing antibodies discovered by Adimab in our AL001 and AL101 product candidates, and we are developing antibodies optimized by Adimab in our AL002 and AL003 product candidates. Additionally, in October 2017, we entered into the AbbVie Agreement to co-develop and commercialize medicines with AbbVie to treat Alzheimer's disease and other neurodegenerative diseases. In August 2019, we entered into a new Adimab Collaboration Agreement for development of antibodies for use in future programs.

Our agreements with Adimab and AbbVie and other agreements we enter into in the future may not provide exclusive rights to use certain intellectual property and technology retained by the collaborator in all relevant fields of use and in all territories in which we may wish to develop or commercialize our technology and products in the future. As a result, we may not be able to prevent competitors or other third parties from developing and commercializing competitive products that utilizes technology retained by such collaborators to the extent such products are not also covered by our intellectual property.

In addition, subject to the terms of any such agreements, we do not have the right to control the preparation, filing, prosecution, and maintenance, and we may not have the right to control the enforcement and defense of certain patents and patent applications retained by the collaborator and provided to us under a limited license. For example, under the Adimab Collaboration Agreement, patent rights relating to improvements to Adimab's background platform technology that are invented in the course of the research under the Adimab Collaboration Agreement are assigned to Adimab. We also have an exclusive option under the Adimab Collaboration Agreement to obtain with respect to a specified number of antibodies directed against such target and discovered or optimized by Adimab, ownership of certain patent rights relating to such antibodies, including certain patent rights. Until we exercise such option, we and Adimab each grant each other a non-exclusive license to the relevant intellectual property. We cannot be certain that patents and patent applications that are controlled by our collaborators will be prepared, filed, prosecuted, maintained, enforced, and defended in a manner consistent with the best interests of our business. If our collaborators fail to prosecute, maintain, enforce, and defend such patents, or lose rights to those patents or patent applications, the limited rights we have licensed may be reduced or eliminated, our right to develop and commercialize any of our product candidates that are subject of such licensed rights could be adversely affected, and we may have a reduced ability to prevent competitors from making, using, and selling competing products. In addition, even where we have the right to control patent prosecution of patents and patent applications we have licensed to and from collaborators, we may still be adversely affected or prejudiced by actions or inactions of our collaborators that took place prior to the date upon which we assumed control over patent prosecution.

Furthermore, our or our collaborators' patents may be subject to a reservation of rights by one or more third parties. For example, we received an award from the National Institute of Health in support of our research into the production and characterization of novel therapeutic antibodies against the neurotrophic factor PGRN degrading receptor Sortilin ("SORT1"). As a result, the U.S. government may have certain rights to resulting intellectual property. When new technologies are developed with U.S. government funding, the U.S. government generally obtains certain rights in any resulting patents, including a non-exclusive license authorizing the U.S. government to use the invention or to have others use the invention on its behalf. The U.S. government's rights may also permit it to disclose the funded inventions and technology to third parties and to exercise march-in rights to use or allow third parties to use the technology developed using U.S. government funding. The U.S. government may exercise its march-in rights if it determines that action is necessary because we fail to achieve the practical application of the government funded technology, or because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to U.S. industry. In addition, our rights in such inventions may be subject to certain requirements to manufacture products embodying such inventions in facilities in the United States in certain circumstances and if this requirement is not waived. Any exercise by the U.S. government of such rights or by any third party of its reserved rights could have a material adverse effect on our competitive position, business, financial condition, results of operations, and prospects.

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

We have entered into agreements with our collaborators to option or license certain intellectual property and may need to obtain additional intellectual property rights from others to advance our research or allow commercialization of product candidates we may develop. It is possible that we may be unable to obtain additional intellectual property rights at a reasonable cost or on reasonable terms, if at all. In that event, we may be required to expend significant time and resources to redesign our technology, product candidates, or the methods for manufacturing them or to develop or license replacement technology, all of which may not be feasible

on a technical or commercial basis. If we are unable to do so, we may be unable to develop or commercialize the affected product candidates, which could harm our business, financial condition, results of operations, and prospects significantly. We cannot provide any assurances that third-party patents do not exist which might be enforced against our current technology, manufacturing methods, product candidates, or future methods or products resulting in either an injunction prohibiting our manufacture or future sales, or, with respect to our future sales, an obligation on our part to pay royalties and/or other forms of compensation to third parties, which could be significant.

In addition, each of our agreements with collaborators do, and we expect our future agreements will, impose various economic, development, diligence, commercialization, and other obligations on us. Certain of our collaboration agreements also require us to meet development timelines, or to exercise commercially reasonable efforts to develop and commercialize licensed products. In spite of our efforts, our collaborators might conclude that we have materially breached our obligations under such agreements and might therefore terminate or seek damages under the agreements, thereby removing or limiting our ability to develop and commercialize products and technology covered by these agreements. If termination of these agreements causes us to lose the rights to certain patents or other intellectual property, or if the underlying patents fail to provide the intended exclusivity, competitors or other third parties may have the freedom to seek regulatory approval of, and to market, products similar to or identical to ours and we may be required to cease our development and commercialization of certain of our product candidates. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and growth prospects.

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

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

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

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

Filing, prosecuting, and defending patents on our product candidates and other technologies in all countries throughout the world would be prohibitively expensive, and the laws of foreign countries may not protect our rights to the same extent as the laws of the United States.

Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. 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 is not as strong as that in the United States. These products may compete with our products, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets, and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our intellectual property and

proprietary rights generally. Proceedings to enforce our intellectual property and proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly, could put our patent applications at risk of not issuing, 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. Accordingly, our efforts to enforce our intellectual property and proprietary rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we, our collaborators or any of our future licensors is forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business, financial condition, results of operations, and prospects may be adversely affected.

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 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 owned or licensed patents and applications. In certain circumstances, we rely on our collaborators or licensing partners to pay these fees due to U.S. and non-U.S. patent agencies. The USPTO and various non-U.S. government agencies require compliance with several procedural, documentary, fee payment, and other similar provisions during the patent application process. We also are dependent on our collaborators or licensors to take the necessary action to comply with these requirements with respect to our licensed intellectual property. In some cases, an inadvertent lapse 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 patent or patent application, resulting in a partial or complete loss of patent rights in the relevant jurisdiction. In such an event, potential competitors might be able to enter the market with similar or identical products or technology, which could have a material adverse effect on our business, financial condition, results of operations, and growth prospects.

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

Changes in either the patent laws or interpretation of the patent laws in the United States could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. Assuming that other requirements for patentability are met, prior to March 2013, in the United States, the first to invent the claimed invention was entitled to the patent, while outside the United States, the first to file a patent application was entitled to the patent. After March 2013, under the Leahy-Smith America Invents Act (the America Invents Act) enacted in September 2011, the United States transitioned to a first inventor to file system in which, assuming that other requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. A third party that files a patent application in the USPTO after March 2013, but before us could therefore be awarded a patent covering an invention of ours even if we had made the invention before it was made by such third party. This will require us to be cognizant going forward of the time from invention to filing of a patent application. Since patent applications in the United States and most other countries are confidential for a period of time after filing or until issuance, we cannot be certain that we were the first to either (i) file any patent application related to our product candidates or other technologies or (ii) invent any of the inventions claimed in our patents or patent applications.

The America Invents Act also includes a number of significant changes that affect the way patent applications will be prosecuted and also may affect patent litigation. These include allowing third party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, *inter partes* review, and derivation proceedings. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate our patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. Therefore, the America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

In addition, the patent positions of companies in the development and commercialization of pharmaceuticals are particularly uncertain. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. This combination of events has created uncertainty with respect to the validity and enforceability of patents, once obtained. Depending on future actions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could have a material adverse effect on our existing patent portfolio and our ability to protect and enforce our intellectual property in the future.

Issued patents covering our product candidates and other technologies could be found invalid or unenforceable if challenged in court or before administrative bodies in the United States or abroad.

If we initiated legal proceedings against a third party to enforce a patent covering our product candidates or other technologies, the defendant could counterclaim that such patent is invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, 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 USPTO, or made a misleading statement, during prosecution. Third parties may raise claims challenging the validity or enforceability of our patents 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, interference proceedings, derivation proceedings, and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings). Such proceedings could result in the revocation of, cancellation of, or amendment to our patents in such a way that they no longer cover our product candidates or other technologies. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we or our licensing partners and the patent examiner were unaware during prosecution. If a third party were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our product candidates or other technologies. Such a loss of patent protection would have a material adverse impact on our business, financial condition, results of operations, and growth prospects.

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

Depending upon the timing, duration, and specifics of any FDA marketing approval of any product candidates we may develop, one or more of our U.S. patents may be eligible for limited patent term extension under the Hatch-Waxman Act. The Hatch-Waxman Act permits a patent term extension of up to five years as compensation for patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond 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. Similar extensions as compensation for patent term lost during regulatory review processes are also available in certain foreign countries and territories, such as in Europe under a Supplementary Patent Certificate. However, we may not be granted an extension in the United States and/or foreign countries and territories because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents, or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or the term of any such extension is shorter than what we request, our competitors may obtain approval of competing products following our patent expiration, and our business, financial condition, results of operations, and growth prospects could be materially harmed.

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

We may be subject to claims that former employees, collaborators or other third parties have an interest in our patents, trade secrets, or other intellectual property as an inventor or co-inventor. For example, we may have inventorship disputes arise from conflicting obligations of employees, consultants, or others who are involved in developing our product candidates or other technologies. Litigation may be necessary to defend against these and other claims challenging inventorship or ownership of our patents, trade secrets, or other intellectual property. If the defense of any such claims fails, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, intellectual property that is important to our product candidates and other technologies. 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. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations, and growth prospects.

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

In addition to seeking patents for our product candidates and other technologies, we also rely on trade secrets and confidentiality agreements to protect our unpatented know-how, technology, and other proprietary information and to maintain our competitive position. We consider trade secrets and know-how to be one of our primary sources of intellectual property. Trade secrets and know-how can be difficult to protect. We expect our trade secrets and know-how to over time be disseminated within the industry through independent development, the publication of journal articles describing the methodology, and the movement of personnel from academic to industry scientific positions.

We seek to protect these trade secrets and other proprietary technology, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, corporate collaborators, outside scientific collaborators, CROs, CDMOs, consultants, advisors, and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants, train our employees not to bring or use proprietary information or technology from former employers to us or in their work, and remind former employees when they leave their employment of their confidentiality obligations. We cannot guarantee that we have entered into such agreements with each party that may have or have had access to our trade secrets or proprietary technology and processes. Despite our efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. For example, on June 18, 2019, we initiated a confidential arbitration proceeding against Dr. Asa Abeliovich, our former consulting co-founder, related to alleged breaches of his consulting agreement and the improper use of our confidential information learned during the course of rendering services to us as our consulting Chief Scientific Officer/Chief Innovation Officer. We are in the early stage of this arbitration proceeding and are unable to assess or provide any assurances regarding its possible outcome. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive, and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, we would have no right to prevent them from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor or other third party, our competitive position would be materially and adversely harmed.

We may not be successful in obtaining, through acquisitions or otherwise, necessary rights to our product candidates or other technologies.

Many pharmaceutical companies, biotechnology companies, and academic institutions are competing with us in the field of neurodegeneration therapy may have patents and have filed and are likely filing patent applications potentially relevant to our business. In order to avoid infringing these third-party patents, we may find it necessary or prudent to obtain licenses to such patents from such third-party intellectual property holders. We may also require licenses from third parties for certain technologies for use with future product candidates. In addition, with respect to any patents we co-own with third parties, we may wish to obtain licenses to such co-owners' interest to such patents. However, we may be unable to secure such licenses or otherwise acquire any compositions, methods of use, processes, or other intellectual property rights from third parties that we identify as necessary for our future product candidates. 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, financial condition, results of operations, and growth prospects.

We may be subject to claims that our employees, consultants, or advisors have wrongfully used or disclosed alleged trade secrets of their current or former employers or claims asserting ownership of what we regard as our own intellectual property. *

Many of our employees, consultants, and advisors are currently or were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors and potential competitors. 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 these individuals have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. 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. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management.

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

Third-party claims of intellectual property infringement, misappropriation, or other violation against us or our collaborators may prevent or delay the development and commercialization of our product candidates and other technologies.

The field of discovering treatments for neurodegenerative diseases is highly competitive and dynamic. Due to the focused research and development that is taking place by several companies, including us and our competitors, in this field, the intellectual property landscape is in flux, and it may remain uncertain in the future. Additionally, the technology used in our product candidates is still in its infancy and no products utilizing similar technology have yet reached the market. As such, there may be significant intellectual property related litigation and proceedings relating to our, and other third party, intellectual property and proprietary rights in the future.

Our commercial success depends in part on our and our collaborators' ability to develop, manufacture, market, and sell any product candidates that we develop and to use our proprietary technologies without infringing, misappropriating, and otherwise violating the patents and other intellectual property rights of third parties. There is a substantial amount of complex litigation involving patents and other intellectual property rights in the biotechnology and pharmaceutical industries, as well as administrative proceedings for challenging patents, including interference, derivation, and reexamination proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. We may become party to, or threatened with, such actions in the future, regardless of their merit. As discussed above, recently, due to changes in U.S. law referred to as patent reform, new procedures including *inter partes* review and post-grant review have been implemented. As stated above, this reform adds uncertainty to the possibility of challenge to our patents in the future.

Numerous U.S. and foreign issued patents and pending patent applications owned by third parties exist in the fields in which we are developing our product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidates and other technologies may give rise to claims of infringement of the patent rights of others. Although we believe that we do not infringe a valid claim of any third party's patents or other intellectual property, we cannot assure you that our product candidates and other technologies that we have developed, are developing or may develop in the future will not infringe existing or future patents owned by third parties. We may not be aware of patents that have already been issued and that a third party, for example, a competitor in the fields in which we are developing product candidates, and other technologies might assert are infringed by our current or future product candidates or other technologies, including claims to compositions, formulations, methods of manufacture or methods of use or treatment that cover our product candidates or other technologies. It is also possible that patents owned by third parties of which we are aware, but which we do not believe are relevant to our product candidates or other technologies, could be found to be infringed by our product candidates or other technologies. In addition, because patent applications can take many years to issue, there may be currently pending patent applications that may later result in issued patents that our product candidates or other technologies may infringe.

Third parties may have patents or obtain patents in the future and claim that the manufacture, use or sale of our product candidates or other technologies infringes upon these patents. In the event that any third-party claims that we infringe their patents or that we are otherwise employing their proprietary technology without authorization and initiates litigation against us, even if we believe such claims are without merit, a court of competent jurisdiction could hold that such patents are valid, enforceable and infringed by our product candidates or other technologies. In this case, the holders of such patents may be able to block our ability to commercialize the applicable product candidate or technology unless we obtain a license under the applicable patents, or until such patents expire or are finally determined to be held invalid or unenforceable. Such a license may not be available on commercially reasonable terms or at all. Even if we are able to obtain a license, the license would likely obligate us to pay license fees or royalties or both, and the rights granted to us might be nonexclusive, which could result in our competitors gaining access to the same intellectual property. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, we may be unable to commercialize our product candidates or other technologies, or such commercialization efforts may be significantly delayed, which could in turn significantly harm our business.

Defense of infringement claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of management and other employee resources from our business, and may impact our reputation. In the event of a successful claim of infringement against us, we may be enjoined from further developing or commercializing our infringing product candidates or other technologies. In addition, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties, and/or redesign our infringing product candidates or technologies, which may be impossible or require substantial time and monetary expenditure. In that event, we would be unable to further develop and commercialize our product candidates or other technologies, which could harm our business significantly.

Engaging in litigation to defend against third parties alleging that we have infringed, misappropriated, or otherwise violated their patents or other intellectual property rights is very expensive, particularly for a company of our size, and time-consuming. Some of our competitors may be able to sustain the costs of litigation or administrative proceedings more effectively than we can because of greater financial resources. Patent litigation and other proceedings may also absorb significant management time. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings against us could impair our ability to compete in the marketplace. The occurrence of any of the foregoing could have a material adverse effect on our business, financial condition, results of operations, and growth prospects.

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

Competitors may infringe our patents or the patents of our licensing partners, or we may be required to defend against claims of infringement. In addition, our patents or the patents of our licensing partners also may become involved in inventorship, priority, or validity disputes. To counter or defend against such claims can be expensive and time consuming. In an infringement proceeding, a court may decide that a patent in which we have an interest is invalid or unenforceable, the other party's use of our patented technology falls under the safe harbor to patent infringement under 35 U.S.C. §271(e)(1), or may refuse to stop the other party 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 proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly. 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.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses and could distract our personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions, or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing, or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

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

Our registered or unregistered trademarks or trade names may be challenged, infringed, circumvented, or declared generic or determined to be infringing on other marks. We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition among potential partners or customers in our markets of interest. At times, competitors or other third parties may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or trade names. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business may be adversely affected. Our efforts to enforce or protect our proprietary rights related to trademarks, trade secrets, domain names, copyrights or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely affect our business, financial condition, results of operations, and growth prospects.

Intellectual property rights do not necessarily address all potential threats.

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. For example:

- others may be able to make products that are similar to our product candidates or utilize similar technology but that are not covered by the claims of the patents that we license or may own;
- we, or our current or future licensors or collaborators, might not have been the first to make the inventions covered by the issued patent or pending patent application that we license or own now or in the future;
- we, or our current or future licensors or collaborators, might not have been the first to file patent applications covering certain of our or their inventions;

- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our owned or licensed intellectual property rights;
- it is possible that our current or future pending owned or licensed patent applications will not lead to issued patents;
- issued patents that we hold rights to may be held invalid or unenforceable, including as a result of legal challenges by our competitors or other third parties;
- our competitors or other third parties might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable;
- the patents of others may harm our business; and
- we may choose not to file a patent in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property.

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

Risks Related to Our Operations

We are highly dependent on our key personnel, and if we are not successful in attracting, motivating, and retaining highly qualified personnel, we may not be able to successfully implement our business strategy.

Our ability to compete in the highly competitive biotechnology and pharmaceutical industries depends upon our ability to attract, motivate, and retain highly qualified managerial, scientific, and medical personnel. We are highly dependent on our management, particularly our Chief Executive Officer, Dr. Arnon Rosenthal, and our scientific and medical personnel. The loss of the services provided by any of our executive officers, other key employees, and other scientific and medical advisors, and our inability to find suitable replacements, could result in delays in the development of our product candidates and harm our business.

We conduct our operations at our facility in South San Francisco, California, in a region that is headquarters to many other biopharmaceutical companies and many academic and research institutions. Competition for skilled personnel is intense and the turnover rate can be high, which may limit our ability to hire and retain highly qualified personnel on acceptable terms or at all. We expect that we may need to recruit talent from outside of our region and doing so may be costly and difficult.

To induce valuable employees to remain at our company, in addition to salary and cash incentives, we have provided restricted stock and stock option grants that vest over time. The value to employees of these equity grants that vest over time may be significantly affected by movements in our stock price that are beyond our control and may at any time be insufficient to counteract more lucrative offers from other companies. Although we have employment agreements with our key employees, these employment agreements provide for at-will employment, which means that any of our employees could leave our employment at any time, with or without notice. If we are unable to attract and incentivize quality personnel on acceptable terms, or at all, it may cause our business and operating results to suffer.

We will need to grow the size and capabilities of our organization, and we may experience difficulties in managing this growth.

As of September 30, 2019, we had 109 full-time employees. As our development plans and strategies develop, and as we continue to implement the requirements applicable to operating as a public company, we must add a significant number of additional managerial, operational, financial, and other personnel. Future growth will impose significant added responsibilities on members of management, including:

- identifying, recruiting, integrating, retaining, and motivating additional employees;
- managing our internal development efforts effectively, including the clinical and FDA review process for our current and future product candidates, while complying with our contractual obligations to contractors and other third parties;
- expanding our operational, financial and management controls, reporting systems, and procedures; and
- managing increasing operational and managerial complexity.

Our future financial performance and our ability to continue to develop and, if approved, commercialize our product candidates will depend, in part, on our ability to effectively manage any future growth. Our management may also have to divert a disproportionate amount of its attention away from day-to-day activities in order to manage these growth activities.

We currently rely, and for the foreseeable future will continue to rely, in substantial part on certain independent organizations, advisors, and consultants to provide certain services. There can be no assurance that the services of these independent organizations, advisors, and consultants will continue to be available to us on a timely basis when needed, or that we can find qualified replacements. In addition, if we are unable to effectively manage our outsourced activities or if the quality or accuracy of the services provided by consultants is compromised for any reason, our clinical trials may be extended, delayed, or terminated, and we may not be able to obtain regulatory approval of our product candidates or otherwise advance our business. There can be no assurance that we will be able to manage our existing consultants or find other competent outside contractors and consultants on economically reasonable terms, if at all.

If we are not able to effectively expand our organization by hiring new employees and expanding our groups of consultants and contractors, we may not be able to successfully implement the tasks necessary to further develop our product candidates and, accordingly, may not achieve our research, development, and commercialization goals.

We have engaged in strategic collaborations and may in the future engage in acquisitions, collaborations, or strategic partnerships, which may increase our capital requirements, dilute our stockholders, cause us to incur debt or assume contingent liabilities, and subject us to other risks.

We have engaged in strategic collaborations in the past, such as our strategic collaboration with AbbVie, and we may engage in various acquisitions, collaborations, and strategic partnerships in the future, including licensing or acquiring complementary products, intellectual property rights, technologies, or businesses. Any acquisition, collaboration, or strategic partnership may entail numerous risks, including:

- increased operating expenses and cash requirements;
- volatility with respect to the financial reporting related to such arrangements, such as our expected variability in the recognition of revenue each quarter from the AbbVie Agreement based on the percentage-of-completion basis under the applicable accounting rules;
- assumption of indebtedness or contingent liabilities;
- issuance of our equity securities which would result in dilution to our stockholders;
- assimilation of operations, intellectual property, products, and product candidates of an acquired company, including difficulties associated with integrating new personnel;
- diversion of our management's attention from our existing product programs and initiatives in pursuing such an acquisition or strategic partnership;
- retention of key employees, the loss of key personnel, and uncertainties in our ability to maintain key business relationships;
- risks and uncertainties associated with the other party to such a transaction, including the prospects of that party and their existing products or product candidates and regulatory approvals; and
- our inability to generate revenue from acquired intellectual property, technology, and/or products sufficient to meet our objectives or even to offset the associated transaction and maintenance costs.

In addition, if we undertake such a transaction, we may issue dilutive securities, assume or incur debt obligations, incur large one-time expenses, and acquire intangible assets that could result in significant future amortization expense.

Our internal computer systems, or those used by our third-party research institution collaborators, CROs or other contractors or consultants, may fail or suffer other breakdowns, cyberattacks, or information security breaches that could compromise the confidentiality, integrity, and availability of such systems and data, result in material disruptions of our development programs and business operations, risk disclosure of confidential, financial, or proprietary information, and affect our reputation.

Despite the implementation of security measures, our internal computer systems and those of our future CROs and other contractors and consultants may be vulnerable to damage from computer viruses and unauthorized access. As the cyber-threat landscape evolves, these attacks are growing in frequency, sophistication, and intensity, and are becoming increasingly difficult to detect. Such attacks could include the use of key loggers or other harmful and virulent malware, including ransomware or other

denials of service, and can be deployed through malicious websites, the use of social engineering, and/or other means. If a breakdown, cyberattack, or other information security breach were to occur and cause interruptions in our operations, it could result in a misappropriation of confidential information, including our intellectual property or financial information, and a material disruption of our development programs and our business operations. For example, the loss of clinical trial data from completed, ongoing, or future clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Likewise, we rely on our third-party research institution collaborators for research and development of our product candidates and other third parties for the manufacture of our product candidates and to conduct clinical trials, and similar events relating to their computer systems could also have a material adverse effect on our business. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or systems, or inappropriate disclosure of confidential, financial, or proprietary information, including data related to our personnel, we could incur liability or risk disclosure of confidential, financial, or proprietary information, and the further development and commercialization of our product candidates could be delayed. There can be no assurance that we and our business counterparties will be successful in efforts to detect, prevent, or fully recover systems or data from all breakdowns, service interruptions, attacks, or breaches of systems that could adversely affect our business and operations and/or result in the loss of critical or sensitive data, which could result in financial, legal, business, or reputational harm to us.

Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.

Our operations, and those of our third-party research institution collaborators, CROs, CDMOs, suppliers, and other contractors and consultants, could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics, and other natural or man-made disasters or business interruptions, for which we are partly uninsured. In addition, we rely on our third-party research institution collaborators for conducting research and development of our product candidates, and they may be affected by government shutdowns or withdrawn funding. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses. We rely on third-party manufacturers to produce and process our product candidates. Our ability to obtain clinical supplies of our product candidates could be disrupted if the operations of these suppliers are affected by a man-made or natural disaster or other business interruption.

The majority of our operations including our corporate headquarters are located in a facility in South San Francisco, California. Damage or extended periods of interruption to our corporate, development, or research facilities due to fire, natural disaster, power loss, communications failure, unauthorized entry, or other events could cause us to cease or delay development of some or all of our product candidates. Although we maintain property damage and business interruption insurance coverage on these facilities, our insurance might not cover all losses under such circumstances and our business may be seriously harmed by such delays and interruption.

Our business is subject to economic, political, regulatory, and other risks associated with international operations.

Our business is subject to risks associated with conducting business internationally. Some of our CDMOs are located outside the United States. Accordingly, our future results could be harmed by a variety of factors, including:

- economic weakness, including inflation, or political instability in particular non-U.S. economies and markets;
- differing and changing regulatory requirements in non-U.S. countries;
- challenges enforcing our contractual and intellectual property rights, especially in those foreign countries that do not respect and protect intellectual property rights to the same extent as the United States;
- difficulties in compliance with non-U.S. laws and regulations;
- changes in non-U.S. regulations and customs, tariffs, and trade barriers;
- changes in non-U.S. currency exchange rates and currency controls;
- changes in a specific country’s or region’s political or economic environment;
- shipping of biologics/drugs;
- trade protection measures, import or export licensing requirements, or other restrictive actions by U.S. or non-U.S. governments;
- negative consequences from changes in tax laws;
- compliance with tax, employment, immigration, and labor laws for employees living or traveling abroad;
- workforce uncertainty in countries where labor unrest is more common than in the United States;

- difficulties associated with staffing and managing international operations, including differing labor relations;
- potential liability under the FCPA, UK Bribery Act, or comparable foreign laws; and
- business interruptions resulting from geo-political actions, including war and terrorism, or natural disasters including earthquakes, typhoons, floods, and fires.

These and other risks associated with our planned international operations may materially adversely affect our ability to attain profitable operations.

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

As of December 31, 2018, we had federal and state net operating loss ("NOL") carryforwards of approximately $17.5 million and $17.1 million, respectively, which will begin to expire in 2037, if not utilized. Due to tax reform, the Company also has federal NOL carryforwards of $42.9 million generated after December 31, 2017, which do not expire. Under Sections 382 and 383 of the United States Internal Revenue Code of 1986, as amended, or the Code, if a corporation undergoes an "ownership change" (generally defined as a greater than 50-percentage-point cumulative change (by value) in the equity ownership of certain stockholders over a rolling three-year period), the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes to offset its post-change taxable income or taxes may be limited. As a result of our initial public offering in February 2019, and other transactions that have occurred since our incorporation, we may have experienced such an ownership change. We may also experience ownership changes in the future as a result of subsequent shifts in our stock ownership, some of which are outside our control. As a result, our ability to use our pre-change net operating loss carryforwards and other pre-change tax attributes to offset post-change taxable income or taxes may be subject to limitation. In addition, the enacted legislation commonly referred to as the Tax Cuts and Jobs Act of 2017 (the "Tax Act") imposes certain limitations on the deduction of NOLs, including a limitation on the use of NOLs generated in tax years beginning after December 31, 2017 to 80% of current year taxable income. The Tax Act also eliminates the carryback and permits the indefinite carryforward of NOLs arising in tax years ending after December 31, 2017, whereas NOLs arising in tax years ending prior to that date continue to have a two-year carryback and twenty-year carryforward.

Risks Related to Ownership of Our Common Stock

An active trading market for our common stock may not be sustained.*

Prior to our initial public offering in February 2019, there was no public trading market for our common stock. Although our common stock is listed on the NASDAQ Global Select Market, the market for our shares has demonstrated varying levels of trading activity. We cannot predict the prices at which our common stock will trade. It is possible that in one or more future periods our results of operations and progression of our product pipeline may not meet the expectations of public market analysts and investors, and, as a result of these and other factors, the price of our common stock may fall.

The market price of our common stock may be volatile, which could result in substantial losses for investors.

The trading price of our common stock may be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. Some of the factors that may cause the market price of our common stock to fluctuate include:

- the success of existing or new competitive products or technologies;
- the timing and results of clinical trials for our current product candidates and any future product candidates that we may develop;
- commencement or termination of collaborations for our product development and research programs;
- failure to achieve development, regulatory, or commercialization milestones under our collaborations;
- failure or discontinuation of any of our product development and research programs;
- results of preclinical studies, clinical trials, or regulatory approvals of product candidates of our competitors, or announcements about new research programs or product candidates of our competitors;
- regulatory or legal developments in the United States and other countries;
- developments or disputes concerning patent applications, issued patents, or other proprietary rights;
- the recruitment or departure of key personnel;

- the level of expenses related to any of our research programs, clinical development programs, or product candidates that we may develop;
- the results of our efforts to develop additional product candidates or products;
- actual or anticipated changes in estimates as to financial results, development timelines, or recommendations by securities analysts;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us, our insiders, or other stockholders;
- expiration of market standoff or lock-up agreements;
- variations in our financial results or those of companies that are perceived to be similar to us;
- changes in estimates or recommendations by securities analysts, if any, that cover our stock;
- changes in the structure of healthcare payment systems;
- market conditions in the pharmaceutical and biotechnology sectors;
- general economic, industry, and market conditions; and
- the other factors described in this "Risk Factors" section.

In recent years, the stock market in general, and the market for pharmaceutical and biotechnology companies in particular, has experienced significant price and volume fluctuations that have often been unrelated or disproportionate to changes in the operating performance of the companies whose stock is experiencing those price and volume fluctuations. Broad market and industry factors may seriously affect the market price of our common stock, regardless of our actual operating performance. Following periods of such volatility in the market price of a company's securities, securities class action litigation has often been brought against that company. Because of the potential volatility of our stock price, we may become the target of securities litigation in the future. Securities litigation could result in substantial costs and divert management's attention and resources from our business.

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

The trading market for our common stock will rely in part on the research and reports that industry or financial analysts publish about us or our business. If few analysts commence coverage of us, the trading price of our stock could decrease. If one or more of the analysts covering our business downgrade their evaluations of our stock or if we fail to meet their operating results estimates for us, the price of our stock could decline. If one or more of these analysts cease to cover our stock, we could lose visibility in the market for our stock, which in turn could cause our stock price to decline.

Sales of substantial amounts of our common stock in the public markets, or the perception that such sales might occur, could cause the market price of our common stock to decline 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 amount of our common stock in the public market, the market price of our common stock could decline significantly.

Certain holders of shares of our common stock have rights, subject to conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. Registration of these shares under the Securities Act would result in the shares becoming freely tradeable in the public market, subject to the restrictions of Rule 144 in the case of our affiliates. Any sales of securities by these stockholders could have a material adverse effect on the market price for our common stock.

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

We may seek additional capital through a combination of public and private equity offerings, debt financings, strategic partnerships and alliances, and licensing arrangements. We, and indirectly, our stockholders, will bear the cost of issuing and servicing such securities. Because our decision to issue debt or equity securities in any future offering will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing, or nature of any future offerings. To the extent that we raise additional capital through the sale of equity or debt securities, your ownership interest will be diluted, and the terms may

include liquidation or other preferences that adversely affect your rights as a stockholder. The incurrence of indebtedness would result in increased fixed payment obligations and could involve restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell, or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. Additionally, any future collaborations we enter into with third parties may provide capital in the near term but limit our potential cash flow and revenue in the future. If we raise additional funds through strategic partnerships and alliances and licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies or product candidates, or grant licenses on terms unfavorable to us.

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

Our directors, executive officers, holders of more than 5% of our outstanding stock and their respective affiliates beneficially owned a significant number of shares of our outstanding common stock. As a result, these stockholders, if they act together, may significantly influence all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. This concentration of ownership may have the effect of delaying or preventing a change in control of our company that our other stockholders may believe is in their best interests. This in turn could have a material adverse effect on our stock price and may prevent attempts by our stockholders to replace or remove the board of directors or management.

We are an "emerging growth company," and the reduced disclosure requirements applicable to emerging growth companies may make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012 ("JOBS Act"). For so long as we remain an emerging growth company, we are permitted and plan to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002 ("SOX"), 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, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. As a result, the information we provide stockholders will be different than the information that is available with respect to other public companies. We cannot predict whether investors will find our common stock less attractive if we 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.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards, and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

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

As a public company, and particularly after we are no longer an emerging growth company, we have incurred and will continue to incur significant legal, accounting, and other expenses that we did not incur as a private company. The SOX, the Dodd-Frank Wall Street Reform, and Consumer Protection Act, the listing requirements of NASDAQ, and other applicable securities rules and regulations impose various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. We have hired, and expect that we will need to continue to hire, additional accounting, finance, and other personnel in connection with our becoming, and our efforts to comply with the requirements of being, a public company, and our management and other personnel have devoted and will continue to devote a substantial amount of time towards maintaining compliance with these requirements. These requirements have increased and will continue to increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that the rules and regulations applicable to us as a public company may make it more difficult and more expensive for us to maintain director and officer liability insurance, which could make it more difficult for us to attract and retain qualified members of our board of directors. We are currently evaluating these rules and regulations and cannot predict or estimate the amount of additional costs we may incur or the timing of such costs. These rules and regulations are often subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

Pursuant to SOX Section 404, we will be required to furnish a report by our management on our internal control over financial reporting beginning with our second filing of an Annual Report on Form 10-K with the SEC after we become a public company. However, while we remain an emerging growth company, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve compliance with SOX Section 404 within the prescribed period, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants, adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented, and implement a continuous reporting and improvement process for internal control over financial reporting. Despite our efforts, there is a risk that we will not be able to conclude, within the prescribed timeframe or at all, that our internal control over financial reporting is effective as required by SOX Section 404. If we identify one or more material weaknesses, it could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

If we are unable to maintain effective internal controls, our business, financial position, and results of operations could be adversely affected.

As a public company, we will be subject to reporting and other obligations under the Exchange Act, including the requirements of SOX Section 404, which require annual management assessments of the effectiveness of our internal control over financial reporting. However, our auditors will not be required to formally attest to the effectiveness of our internal control over financial reporting pursuant to SOX Section 404 until we are no longer an emerging growth company if we continue to take advantage of the exemptions available to us through the JOBS Act.

The rules governing the standards that must be met for management to assess our internal control over financial reporting are complex and require significant documentation, testing and possible remediation to meet the detailed standards under the rules. During the course of its testing, our management may identify material weaknesses or deficiencies which may not be remedied in time to meet the deadline imposed by the Sarbanes-Oxley Act of 2002. These reporting and other obligations place significant demands on our management and administrative and operational resources, including accounting resources.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States. Any failure to maintain effective internal controls could have an adverse effect on our business, financial position, and results of operations.

We do not expect to pay any dividends for the foreseeable future. Investors may never obtain a return on their investment.

You should not rely on an investment in our common stock to provide dividend income. We do not anticipate that we will pay any dividends to holders of our common stock in the foreseeable future. Instead, we plan to retain any earnings to maintain and expand our existing operations. In addition, any future credit facility may contain terms prohibiting or limiting the amount of dividends that may be declared or paid on our common stock. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any return on their investment. As a result, investors seeking cash dividends should not purchase our common stock.

Delaware law and provisions in our amended and restated certificate of incorporation and bylaws might discourage, delay, or prevent a change in control of our company or changes in our management and, therefore, depress the trading price of our common stock.

Provisions in our amended and restated certificate of incorporation and bylaws may discourage, delay, or prevent a merger, acquisition, or other change in control that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares of our common stock. These provisions may also prevent or frustrate attempts by our stockholders to replace or remove our management. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our charter documents:

- establish that our board of directors is divided into three classes, Class I, Class II, and Class III, with each class serving staggered three-year terms;
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum;
- provide that our directors may only be removed for cause;

- eliminate cumulative voting in the election of directors;
- authorize our board of directors to issues shares of preferred stock and determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval;
- provide our board of directors with the exclusive right to elect a director to fill a vacancy or newly created directorship;
- permit stockholders to only take actions at a duly called annual or special meeting and not by written consent;
- prohibit stockholders from calling a special meeting of stockholders;
- require that stockholders give advance notice to nominate directors or submit proposals for consideration at stockholder meetings;
- authorize our board of directors, by a majority vote, to amend the bylaws; and
- require the affirmative vote of at least 66 2/3% or more of the outstanding shares of common stock to amend many of the provisions described above.

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

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

Our amended and restated bylaws provide that the Court of Chancery of the State of Delaware is the exclusive forum 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 bylaws provide that, unless we consent to the selection of an alternative forum, the Court of Chancery of the State of Delaware is the exclusive forum for (i) any derivative action or proceeding brought on behalf of us, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, or other employees to us or our stockholders, (iii) any action arising pursuant to any provision of the DGCL or our certificate of incorporation or bylaws (as either may be amended from time to time), or (iv) any action asserting a claim governed by the internal affairs doctrine, except, in each case, (A) any claim as to which such court determines that there is an indispensable party not subject to the jurisdiction of such court (and the indispensable party does not consent to the personal jurisdiction of such court within 10 days following such determination), (B) which is vested in the exclusive jurisdiction of a court or forum other than such court, or (C) for which such court does not have subject matter jurisdiction.

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, employees, control persons, underwriters, or agents, which may discourage lawsuits against us and our directors, employees, control persons, underwriters, or agents. Additionally, a court could determine that the exclusive forum provision is unenforceable, and our stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder. If a court were to find these provisions of our amended and restated bylaws inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business, financial condition, or results of operations.

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

Use of Proceeds

The Registration Statement on Form S-1 (File No. 333-229152) was declared effective by the SEC for our initial public offering of common stock on February 6, 2019. We started trading on the NASDAQ Global Select Market on February 7, 2019. In connection with our initial public offering, we sold an aggregate of 9,739,541 shares of common stock at a public offering price of $19.00 per share, including 489,541 shares sold pursuant to the underwriters' partial exercise of their option to purchase additional shares. The aggregate offering price for shares sold in the offering was $185.1 million. The underwriters for our initial public offering were Morgan Stanley & Co. LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated, and Cowen and Company, LLC. The aggregate net proceeds received by the Company from the offering, net of underwriting discounts and commissions and offering expenses, were

$168.2 million. No offering expenses were paid or are payable, directly or indirectly, to our directors or officers, to persons owning 10% or more of any class of our equity securities or to any of our affiliates.

There has been no material change in the planned use of proceeds from our initial public offering as described in our final prospectus filed with the SEC on February 7, 2019, pursuant to Rule 424(b)(4). We invested the funds received in short-term, interest-bearing, investment-grade securities and government securities.

Item 3. Defaults Upon Senior Securities.

Not applicable.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

Exhibit Index

		Incorporated by Reference				
Number	Exhibit Title	Form	File No.	Exhibit	Filing Date	Filed Herewith
3.1	Amended and Restated Certificate of Incorporation of the Registrant.	8-K	001-38792	3.1	2/11/2019	
3.2	Amended and Restated Bylaws of the Registrant.	8-K	001-38792	3.2	2/11/2019	
10.17#	2019 Collaboration Agreement between the Registrant and Adimab, LLC, dated August 16, 2019.					X
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1*	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2*	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
101.INS	XBRL Instance Document					X
101.SCH	XBRL Taxonomy Extension Schema Document					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document					X
101.DEF	Taxonomy Extension Definition Linkbase Document					X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document					X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document					X

* The certifications attached as Exhibits 32.1 and 32.2 that accompany this Quarterly Report on Form 10-Q are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of the Registrant under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Quarterly Report on Form 10-Q, irrespective of any general incorporation language contained in such filing.

Certain portions of this exhibit (indicated by "[***]") have been omitted as the Registrant determined the omitted information (i) is not material and (ii) would be competitively harmful to the Registrant if publicly disclosed.

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.

ALECTOR, INC.

Date: November 12, 2019

By: /s/ Arnon Rosenthal
Arnon Rosenthal, Ph.D.
Co-Founder and Chief Executive Officer
(Principal Executive Officer)

Date: November 12, 2019

By: /s/ Calvin Yu
Calvin Yu
Vice President, Finance
(Principal Financial and Accounting Officer)

2019 COLLABORATION AGREEMENT

***** Certain information has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.**

2019 COLLABORATION AGREEMENT

THIS 2019 COLLABORATION AGREEMENT (the "**Agreement**") is made effective as of August 16, 2019 (the "**Effective Date**"), by and between Adimab, LLC, a Delaware limited liability company having an address at 7 Lucent Drive, Lebanon, NH 03766 ("**Adimab**"), and **ALECTOR LLC.**, a Delaware limited liability company having an address at 131 Oyster Point Blvd., Suite 600, San Francisco, CA 94080 and its Affiliates ("**Alector**").

BACKGROUND

WHEREAS, Adimab is a leader in yeast-based, fully human antibody discovery and optimization using its proprietary core technology platform;

WHEREAS, Alector is a biotechnology company in the business of, among other things, developing and commercializing therapeutic products;

WHEREAS, Alector wishes to collaborate with Adimab on discovery or optimization of antibodies against Target(s) of Alector's choosing;

WHEREAS, Alector will have the option to develop, manufacture and commercialize the resulting Program-Benefited Antibodies in accordance with the terms hereof; and

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Adimab and Alector hereby agree as follows:

ARTICLE 1
DEFINITIONS

The following initially capitalized terms have the following meanings (and derivative forms of them will be interpreted accordingly):

1.1 "**AAA**" has the meaning set forth in Section 10.2(b) (*Disputes Not Resolved Between the Parties*).

1.2 "**Adimab**" has the meaning set forth in the recitals.

1.3 "**Adimab Indemnitees**" has the meaning set forth in Section 8.2 (*Indemnification by Alector*).

1.4 "**Adimab Materials**" means any tangible biological or chemical materials (including all vectors, cell lines, antibodies and other Know-How in the form of tangible biological or chemical materials) used or created by Adimab and provided to Alector under a Research Program, including quantities of Program Antibodies (and DNA encoding these Program Antibodies), but excluding (i) materials available from third party sources or created independently by Alector, (ii) Alector Materials,

and (iii) from and after the time of Option exercise for the relevant Target, any quantities of Optioned Antibodies (and DNA encoding these Optioned Antibodies) provided to Alector for such Target.

1.5 "**Adimab Multispecific Product**" means a Multispecific Product is comprised of or contains (a) more than one Optioned Antibodies and (b) no antibodies that are not Optioned Antibodies.

1.6 "**Adimab Platform Patents**" means all Patents Adimab Controls during the Term that [***]. (For clarity, Adimab Platform Patents exclude Program Antibody Patents.)

1.7 "**Adimab Platform Technology**" means (a) the discovery and optimization of antibodies via methods used by Adimab that include the use of synthetic DNA antibody libraries and engineered strains of yeast and interrogating repertoires generated through B cell cloning, (b) all methods, materials and other Know-How used by Adimab in the foregoing and (c) platforms embodying, components, component steps and other portions of any of the foregoing in (a) or (b). For clarity, Adimab Platform Technology excludes [***]. Adimab Platform Technology includes Adimab Platform Technology Improvements.

1.8 "**Adimab Platform Technology Improvement**" means all [***].

1.9 "**Affiliate**" means an entity that, directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with a Party. For this purpose, "control" means the ownership of fifty percent (50%) or more of the voting securities entitled to elect the directors or management of the entity, or the actual power to elect or direct the management of the entity.

1.10 "**Agreement**" has the meaning set forth in the recitals.

1.11 "**Alector**" has the meaning set forth in the recitals.

1.12 "**Alector Antibody**" means an antibody or other moiety that specifically and selectively binds a Target and is useful for a therapeutic or clinical purpose, in each case Controlled by Alector, which antibody is not a Program-Benefited Antibody.

1.13 "**Alector Indemnitees**" has the meaning set forth in Section 8.1 (*Indemnification by Adimab*).

1.14 "**Alector Materials**" means [***].

1.15 "**Alector Multispecific Product**" means a Multispecific Product that is comprised of or contains (a) one or more Optioned Antibodies and (b) one or more antibodies that are not Optioned Antibodies.

1.16

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

1.17 "**CDR**" means a complementarity determining region of an antibody [***].

1.18 "**Combination Product**" means a product containing an Optioned Antibody as well as one or more other active therapeutic ingredients, either in the same formulation or as separate formulations sold together for a single sales price. Notwithstanding the foregoing, antibody-drug conjugates, nanoparticle conjugates, CAR-T products, multispecific antibodies (including bispecific or trispecific antibodies), and formulations of multiple antibodies into a single active ingredient (including antibody cocktails) will be deemed not to be Combination Products (*per se*).

1.19 "**Commercially Reasonable Efforts**" means[***].

1.20 "**Confidential Information**" has the meaning set forth in Section 6.1(a) (*Ownership of Confidential Information*).

1.21 "**Control**" means, with respect to any Know-How or Patent, possession by a Party, whether by ownership or license (other than pursuant to this Agreement), of the ability to grant a license or sublicense as provided for in this Agreement without violating the terms of any written agreement with any Third Party.

1.22 "**Cover**" means, with respect to a particular item and a particular Patent, that, in any of the countries of manufacture, use, or sale, (a) the composition of such item, of any of its ingredients or formulations, or of any product containing such item or that is made using such item by virtue of such product containing or being made using such item; (b) a method of making or using any of the foregoing things referred to in (a); (c) an item used or present in the manufacture of any of the foregoing things referred to in (a) or (b) (for example, with respect to a biologic, any vector, plasmid or cell line used to manufacture such product or item or any ingredient in either of them); or (d) any method by which the foregoing things referred to in (a), (b), or (c) was discovered or identified, or another item present during or used in such method would, in the absence of a license or assignment, infringe a valid claim of such Patent.

1.23 "**Delivery Fee**" means the Naïve Discovery Delivery Fee, the Optimization Completion Fee, and the Multispecific Delivery Fee.

1.24 "**Derive**" or "**Derived**" means[***]:

(a) [***]; or

(b) [***].

(c) Any antibody described in clauses (a) or (b) is referred to as a "Derivative" and any Derivative is a Program-Benefited Antibody. [***].

1.25 "**Dispute**" has the meaning set forth in Section 10.2(a) (*Initial Dispute Resolution*).

1.26

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

1.27 "**Evaluation Term**" means, with respect to a Research Program, the time period beginning upon the Final Delivery with respect to such Research Program and ending on the earlier of (a) exercise of the Option with repect to such Research Program, (b) the commencement of IND-enabling toxicology studies with final lead from master cell bank with respect to a Product containing Program-Benefited Antibodies from such Research Program, (c) the non-confidential disclosure of the sequence of any Program-Benefited Antibody from such Research Program (including via Patent prosecution), (d) the entering into of a Licensee Agreement with respect to Program-Benefited Antibodies from such Research Program, or (e) [***] after such Final Delivery under such Research Program; *provided, however*, that Alector, at its sole option, may extend such [***] deadline in clause (e) by one or more periods of [***] by making one-time, non-creditable payment(s) of [***] with respect to each such [***] extension, such amount to be paid at least [***] prior to the end of the then applicable Evaluation Term.

1.28 "**Excluded Technology**" means technology (and the Patents that Cover and the Know-How that embodies such technology) that do not comprise Program Inventions made solely or jointly by or on behalf of Adimab, to the extent pertaining to:[***].

1.29 "**Field**" means therapeutic, diagnostic or prophylactic uses in human and nonhuman disease.

1.30 "**Final Delivery**" means, on a Research Program-by-Research Program basis, the delivery by Adimab to Alector of sequences of Program Antibodies from Adimab's work under a Research Plan [***] for such Research Program. For clarity, if there are multiple deliveries of sequences of Program Antibodies during the course of a Research Program (*e.g.*, one delivery with respect to the Program Antibodies generated through the initial discovery process and a subsequent delivery of sequences of Program Antibodies with respect to optimization of the initially delivered Program Antibodies into new, optimized Program Antibodies), then Final Delivery will mean only the last of such deliveries; *provided, however*, that in the event that [***] passes from the most recent delivery of Program Antibodies from Adimab to Alector under a Research Program and Alector has not submitted a list of Program Antibodies for additional work (*e.g.*, optimization) with respect to such Research Program, then upon written notice by Adimab to Alector specifically referencing this Section 1.29 (*Final Delivery*), the last such delivery will be deemed to be the Final Delivery under such Research Program, even if the possibility exists that Adimab will perform additional work with respect to such Research Program (and even if Adimab actually subsequently performs additional work with respect to such Research Program).

1.31 "**First Commercial Sale**" means, with respect to a Product in any country, the first sale for which payment has been received for use or consumption by an end-user of such Product in such country after receiving Marketing Approval and pricing approval for such Product in such country, excluding registration samples, compassionate use, and use in Phase IV trials for which no payment has been received. So-called "treatment IND sales" and "named patient sales" will not be construed as a First Commercial Sale.

1.32

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

1.33 "**FTE**" means the equivalent of a full-time employee's working days over a twelve (12) month period (taking account of normal vacations, sick days and holidays not being considered working days), which equates to a total of one thousand eight hundred (1,800) hours per twelve (12) month period of work performed by a fully qualified Adimab employee or consultant in a Research Program. To provide an FTE over a given period that is less than a year means to provide the proportionate share (corresponding to the proportion that such period bears to a full year) during such period of a full year's FTE.

1.34 "**FTE Rate**" means [***] per FTE.

1.35 "**Indemnify**" has the meaning set forth in Section 8.1 (*Indemnification by Adimab*).

1.36 "**Know-How**" means all non-public technical information and know-how in any tangible or intangible form, including (a) inventions, discoveries, trade secrets, data, specifications, instructions, processes, formulae, materials (including cell lines, vectors, plasmids, nucleic acids and the like), methods, protocols, expertise and any other technology, including the applicability of any of the foregoing to formulations, compositions or products or to their manufacture, development, registration, use or marketing or to methods of assaying or testing them or processes for their manufacture, formulations containing them or compositions incorporating or comprising them, and (b) all data, instructions, processes, formulae, strategies, and expertise, whether biological, chemical, pharmacological, biochemical, toxicological, pharmaceutical, physical, analytical, or otherwise and whether related to safety, quality control, manufacturing or other disciplines, in each case to the extent not then in the public domain or available from a Third Party. Notwithstanding the foregoing, Know-How excludes Patent claims.

1.37 "**Lead Product**" means the Product designated as a Lead Product by Alector in the context of identifying a Back-Up Candidate in accordance with Section 4.4(c) (*Back-Up Candidates*).

1.38 "**Licensee**" means a Third Party to whom Alector has granted, directly or indirectly through multiple tiers, rights to research, develop, manufacture, or commercialize Program-Benefited Antibodies; *provided, however*, that Licensees will exclude fee-for-service contract research organizations or contract manufacturing organizations acting in such capacity for the benefit of Alector and any Third Party to the extent conducting activities independently of a right or license from Alector to do so. For clarity, licensees of the rights assigned to Alector by Adimab and sublicensees of the license granted by Adimab to Alector pursuant to Section 3.2 (*Commercial Rights*) will be Licensees (to the extent such Third Party conducts such activities pursuant to such rights or sublicensees).

1.39 "**Licensee Agreement**" has the meaning set forth in Section 3.2(b)(iii) (*Licensees*).

1.40 "**Losses**" has the meaning set forth in Section 8.1 (*Indemnification by Adimab*).

1.41

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

1.42 "**Marketing Approval**" means, within any given country, approval by the relevant regulatory agency to market a Product legally as a drug or biologic, such as approval by the United States Food & Drug Administration of a Biologic License Application (as defined in the U.S. Federal Food, Drug and Cosmetics Act and the regulations promulgated thereunder (21 C.F.R. §§ 600-680) in the United States), or approval by a comparable agency of a comparable filing in any other jurisdiction, or analogous approvals with respect to diagnostic or animal health uses in the United States or any other jurisdiction. Pricing approval need not be obtained in order for Marketing Approval to be achieved.

1.43 "**Milestone Event**" has the meaning set forth in Section 4.4(a) (*Milestone Events*).

1.44 "**Milestone Payment**" has the meaning set forth in Section 4.4(a) (*Milestone Events*).

1.45 "**Multispecific Delivery Fee**" has the meaning set forth in Section 4.2(b)(iii) (*Multispecific Delivery Fee*).

1.46 "**Multispecific Product**" means a Product that contains a single molecule, such as a bispecific or trispecific antibody, comprised of or containing binding regions comprising CDRs that bind to two or more Targets or two or more epitopes of the same Target.

1.47 "**Naïve Discovery Delivery Fee**" has the meaning set forth in Section 4.2(b)(i) (*Naïve Discovery Delivery Fee*).

1.48 "**Naïve Library**" means, with respect to a Target, an antibody library containing at least 10^9 transformants, containing both heavy and light chains, and used in initial screening to discover antibodies of interest against such Target.

1.49 "**Net Sales**" means the gross amounts invoiced with respect to a Product by Alector and its Licensees for sales or other disposition of such Product to a Third Party purchaser of such Product, less the following to the extent that the following are directly incurred with respect to a Product, or allocated specifically to a Product in accordance with generally accepted accounting principles consistently applied across the books and records of Alector and its Licensees, as applicable:

(a) discounts (such as cash, trade and quantity discounts) actually allowed with respect to such sales which effectively reduce the selling price and are appropriately deducted from sales under appropriate accounting principles, consistently applied;

(b) credits, returns, rebates, chargebacks and other allowances actually given or allowed with respect to such sales;

(c) retroactive price reductions that are actually allowed or granted;

(d) deductions to the gross amounts invoiced for Product imposed by regulatory authorities or other governmental entities;

(e) sales tax (such as VAT or its equivalent), tariffs and excise taxes, other consumption taxes, and duties (excluding any taxes paid on the income from such sales) to the extent the selling person does not receive and retain a credit or a refund of such taxes or duties; and;

(f) freight, postage, shipping, transportation and insurance charges actually allowed or paid for delivery of Products, to the extent included in the gross amounts invoiced; and

(g) bad debt [***].

In the event that non-cash consideration is received for any Product, Net Sales will be calculated based on the average price charged for such Product during the preceding quarter in the same country, or in the absence of such sales, the fair market value of the Product, as determined by the Parties in good faith. Notwithstanding the foregoing, any (1) inter-company transfers or sales to or from the selling Party's Licensees (including Affiliates thereof) or sublicensees for resale to Third Party end-users, and (2) transfers of Product for use as samples (including registration samples), or for use in research or Product development (including post approval clinical trials), at or below the manufacturing costs thereof, will be excluded from the computation of Net Sales.

If any Optioned Antibody is sold as part of a Combination Product, the Net Sales for such Optioned Antibody will be determined by multiplying the applicable Net Sales of the Optioned Antibody (as determined without the application of this paragraph) by the fraction, A/(A+B), where A is the average per unit sale price of the Optioned Antibody component of the Combination Product when sold separately as a stand-alone product in finished form in the country in which the Combination Product is sold and B is the average per unit sale of the other active ingredients contained in the Combination Product when sold separately as stand-alone products in finished form in the country in which the Combination Product is sold, in each case during the applicable royalty reporting period or, if sales of such stand-alone products did not occur in such country in the applicable period, then in the most recent royalty reporting period in which such sales of such stand-alone products occurred in such country. If such average sale prices cannot be determined because such stand-alone sales did not occur or otherwise, the calculation of applicable Net Sales will be mutually agreed upon by the Parties based on the relative value contributed by each component, such agreement not to be unreasonably withheld; *provided, however*, that if the Parties do not agree on such calculation within [***] after Alector's request regarding such calculation, then the calculation will be determined by arbitration under Section 10.2 (*Dispute Resolution*).

1.50 "**Non-Optioned Antibodies**" means any Program Antibody with respect to which the Evaluation Term has expired and which was not selected by Alector pursuant to Section 3.2(a)(i) (*Option Exercise*), and any Program-Benefited Antibody Derived from such Program Antibody.

1.51 "**Optimization Completion Fee**" has the meaning set forth in Section 4.2(b)(ii) (*Optimization Completion Fee*).

1.52

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

1.53 "**Optimized Alector Product**" means a Product which contains an Optimized Alector Antibody.

1.54 "**Option**" has the meaning set forth in Section 3.2(a)(i) (*Option Exercise*).

1.55 "**Option Fee**" has the meaning set forth in Section 4.3 (*Option Fee*).

1.56 "**Optioned Antibody**" means any Program Antibody selected by Alector pursuant to Section 3.2(a)(i) (*Option Exercise*)[***].

1.57 "**Optioned Program Antibody Patents**" means those Program Antibody Patents that Cover Optioned Antibodies and do not disclose the sequence of Non-Optioned Antibodies.

1.58 "**Party**" means Adimab or Alector.

1.59 "**Patent**" means any patent application or patent anywhere in the world, including all of the following categories of patents and patent applications, and their foreign equivalents: provisional, utility, divisional, continuation, continuation-in-part, and substitution applications; and re-issue, re-examination, renewal and extended patents; and any rights associated with extended patent terms, including Patent Term Adjustment (PTA), Patent Term Extension (PTE), Supplementary Protection Certificates (SPC); and other similar rights.

1.60 "**Phase I Trial**" means a human clinical trial (whether a Phase Ia or a Phase Ib trial) in any country of the type described in 21 C.F.R. §312.21(a), or an equivalent clinical study required by a regulatory authority outside of the United States.

1.61 "**Phase II Trial**" means a human clinical trial conducted in any country of the type described in 21 C.F.R. §312.21(b), or an equivalent clinical study required by a regulatory authority outside of the United States.

1.62 "**Phase III Trial**" means a human clinical trial in any country of the type described in 21 C.F.R. § 312.21(c), or an equivalent clinical study required by a regulatory authority outside the United States. For purposes of this Agreement, a human clinical trial that combines elements of two different phases of clinical trial will be deemed to be the more advanced type of clinical trial (*e.g.*, a Phase II /III clinical trial will be deemed a Phase III Trial).

1.63 "**Product**" means any actual or potential product that comprises or contains one or more Optioned Antibodies (whether or not such product is, is intended to be, or was under evaluation for safety, efficacy, or other factors, and whether or not such Product has been formulated for delivery). For clarity, a multispecific antibody product that comprises or contains two (2) or more Optioned Antibodies will be deemed to be a single Product.

1.64

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

1.65 "**Program Antibody Patents**" means, for a Target, Patents that (a) Cover the sequence of a Program-Benefited Antibody or the methods of manufacturing or using such Program-Benefited Antibody and (b) do not Cover Adimab Platform Technology.

1.66 "**Program-Benefited Antibody**" means any Program Antibody and any antibody that is Derived from a Program Antibody. For clarity, any antibody Derived from a Program-Benefited Antibody will itself be a Program-Benefited Antibody.

1.67 "**Program Inventions**" means, for a Target, any invention that is conceived or first reduced to practice by or on behalf of a Party in the course of or as a result of the activities conducted under this Agreement (including in exercise of a license under this Agreement) or as a result of the material use of non-public, proprietary Confidential Information exchanged hereunder. For clarity, Program Inventions include all Know-How made, developed, invented or discovered by employees, contractors or agents of either Party or of both Parties in performing a Research Program pursuant to this Agreement.

1.68 "**Program Patent**" means any Patent Covering a Program Invention.

1.69 "**Research Committee**" has the meaning set forth in Section 2.2(a) (*Scientific Research Committee*).

1.70 "**Research Plan**" means the research plan agreed upon by the Parties with respect to a Target in accordance with Section 2.1(a) (*Research Plans*).

1.71 "**Research Program**" means a program of research conducted under this Agreement in accordance with a Research Plan. For clarity, in the event that Adimab discovers Program Antibodies against a specific Target both (a) using the Adimab Platform Technology for initial discovery of Program Antibodies against such Target and (b) using an Alector Antibody to generate Optimized Alector Antibodies against such Target, the activities described in clause (a) and in clause (b) will be conducted pursuant to separate Research Programs, but shall be considered as directed to the same Target.

1.72 "**Research Term**" means the period beginning on the date on which Adimab commences work on a Research Program and ending, on a Research Program-by-Research Program basis, upon Adimab's Final Delivery under a Research Plan; *provided, however*, that in the event that Adimab is unable to deliver any antibodies pursuant to a Research Plan within [***] of commencing work on such Research Plan, then either Party may terminate the Research Term at such point.

1.73 "**Royalty Payment**" has the meaning set forth in Section 4.5(a) (*Royalty Payments*).

1.74

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1.75 "**Senior Executive Discussions**" has the meaning set forth in Section 10.2(a) (*Initial Dispute Resolution*).

1.76 "**Sequence IP**" means Patents that Cover, and Know-How related to, the sequence of an antibody (including any Program-Benefited Antibody), including the CDRs and any fragments thereof.

1.77 "**Target**" means a target selected by Alector pursuant to Section 2.1 (*Research Programs*), including all include fragments, isoforms, and naturally occurring variants thereof.

1.78 "**Target Nomination Period**" means the term beginning on the Effective Date and ending [***] after the Effective Date.

1.79 "**Target Questionnaire**" means the form of target questionnaire attached hereto as Exhibit A.

1.80 "**Term**" will have the meaning set forth in Section 9.1 (*Term*).

1.81 "**Terminated Antibodies**" has the meaning set forth in Section 9.4(e) (*Termination with Respect to a Research Program*).

1.82 "**Terminated Products**" has the meaning set forth in Section 9.4(e) (*Termination with Respect to a Research Program*).

1.83 "**Third Party**" means an entity other than a Party or any of its Affiliates.

1.84 "**Third Party Claims**" has the meaning set forth in Section 8.1 (*Indemnification by Adimab*).

1.85 "**Third Party Contractors**" means (a) Third Parties that provide services on a fee-for-service basis, such as contract research organizations, contract manufacturers, and the like, and (b) Third Party academic collaborators, in each case, so long as (x) any agreement between Alector and such Third Party service provider or Third Party academic collaborator is terminable at will upon reasonable notice by Alector and (y) Alector does not grant such Third Party service provider or Third Party academic collaborator any rights inconsistent with Alector's rights to research develop, manufacture, commercialize, or patent (or an option to obtain such rights) with respect to any Program-Benefited Antibodies, and (z) such Third Party service provider or Third Party academic collaborator is bound to the same confidentiality and non-use obligations as Alector is bound to under this Agreement.

1.86

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

1.87 References in the body of this Agreement to "Sections" or "Articles" refer to the sections or articles of this Agreement. The terms "include," "includes," "including" and derivative forms of them will be deemed followed by the phrase "without limitation" regardless of whether such phrase appears there (and with no implication being drawn from its inconsistent inclusion or non-inclusion) and the term "or" has the inclusive meaning represented by the phrase "and/or" (regardless of whether it is actually written and drawing no implication from the actual use of the phrase "and/or" in some instances but not in others).

1.88 To avoid doubt, the term "antibody" as used everywhere else in this Agreement includes full-length antibodies, fragments thereof, and chemically modified versions thereof (including pegylated versions and multispecific antibodies (including bispecifics and trispecifics) and regardless of whether containing amino acid substitutions), all of the foregoing whether naturally occurring, artificially produced, raised in an artificial system, or created through modification of an antibody produced in any of the foregoing ways or otherwise, and whether represented by physical material or sequences. Throughout this Agreement, the term "sequence" or "sequences" means both the amino acid sequence and nucleic acid sequence and a sequence may be identified either explicitly (*e.g.*, by identifying the specific sequences) or implicitly (*e.g.*, by referencing specific substitutions to the sequence of an antibody). References in this Agreement to disclosure or use of sequence(s) of an antibody or CDR will mean the public disclosure or use of the unique sequence(s) of such antibody or CDR.

ARTICLE 2
RESEARCH PROGRAMS

2.1 Research Programs.

(a)

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

(b) **Conduct of Research**. Each Party will use its Commercially Reasonable Efforts to perform the activities assigned to such Party in a Research Plan and to achieve the timeline(s) set forth in such Research Plan. Adimab's obligation to start performance of a Research Program hereunder will be subject to (i) the availability of reagents of sufficient quality and quantity, and (ii) the availability of Adimab researchers to perform such Research Program, and Adimab will provide Alector with reasonable notice as to the availability of its researchers to start performance of its obligations under a Research Plan at the time of negotiation of such Research Plan. Alector Materials are expected to include Target antigen of suitable quality for performance of the Research Program and such Alector Materials must pass Adimab's quality control standards prior to commencing the Research Program. Adimab's performance obligations under a Research Program will expire at the end of the Research Term for such Research Program. Adimab will have the right to use Third Parties in the performance of its obligations hereunder. Adimab will have the right to use Third Party Contractors in the performance of its obligations hereunder; *provided, however*, that: (a) Adimab provides written notice to Alector identifying such Third Party Contractor and Alector agrees to Adimab's use of such Third Party Contractor; (b) any such subcontract will be subject to the relevant terms and conditions of this Agreement; (c) Adimab will enter into agreements with its Third Party Contractors that contain confidentiality terms no less stringent than those set forth in Article 6 (CONFIDENTIALITY; PUBLICITY) hereof and assignment of inventions provisions consistent with the requirements of this Agreement; and (d) no such subcontracting will relieve Adimab of its obligations hereunder.

2.2 **Project Management.**

(a) **Scientific Research Committee**. Promptly after agreement on a Research Plan, the Parties will form a steering committee consisting of two (2) representatives of each Party (the "**Research Committee**") to oversee such Research Plan. The Research Committee's role is to facilitate communication regarding progress in relation to a Research Program and the collaboration generally. Either Party may change its Research Committee members upon written notice to the other Party. The Research Committee may meet in person or by teleconference or videoconference. Each Party will designate one of its Research Committee members as co-chair. The Research Committee will meet from time to time promptly after the date of a written request by either Party. Additional members representing either Party may attend any Research Committee meeting. The co-chairs will be responsible for circulating, finalizing and agreeing upon minutes of each meeting within [***] after the meeting date. Upon expiration of the final Research Term, the Research Committee will be disbanded.

(b)

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(c) **Alliance Managers**. Each Party will designate in writing within [***] after the Effective Date an "Alliance Manager" to be the primary contact for such Party. The Alliance Manager will be responsible for managing communications between the Parties with respect to each Research Program, including responsibility for scheduling teleconferences and coordinating Research Committee meetings. Alliance Managers may also be members of the Research Committee. In no event will the Alliance Managers have the power to amend or waive compliance with this Agreement.

2.3 Reports; Records.

(a) **Reports By Adimab**. At the junctures specified in a Research Plan, Adimab will provide written reports to Alector regarding such Research Plan. Adimab will maintain records, in reasonable scientific and technical detail and in a manner appropriate for patent purposes, which will be complete and accurate and will fully and properly reflect all work done and results achieved in the performance of a Research Program.

(b) **Reports By Alector**. During each Research Term at junctures set forth in the Research Plan, Alector will provide written summary reports as required under the applicable Research Plan. Following exercise of the applicable Option with respect to a Research Program until First Commercial Sale of the first Product against the applicable Target, Alector will provide semi-annual written reports to Adimab in the form attached hereto as Exhibit C regarding the existence and stage of development of all Optioned Antibodies and Products that include such Optioned Antibody since the date of the last report, and any advancements in the stage of development expected in the next [***] in the form attached hereto as Exhibit C. For clarity, the information reported by Alector will be Alector's Confidential Information and will be used by Adimab solely for the purpose of allowing Adimab to monitor the progress of development of Program-Benefited Antibodies during the Evaluation Term and, after the Evaluation Term, Optioned Antibodies and Products, and to monitor Alector's obligations under this Agreement.

2.4 Adimab Materials.

(a)

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

(b) **Use of Third Party Contractors**. During the Research Term and the Evaluation Term, Alector may use Third Party Contractors to assist in assessing and Deriving Program-Benefited Antibodies to determine whether to exercise an Option with respect to such Research Program; *provided, however*, that in the event that such Evaluation Term expires and Alector has not exercised the applicable Option, then Alector will terminate any agreements with such Third Party Contractors to the extent that such agreements pertain to Program-Benefited Antibodies in a manner such that Alector does not grant to such Third Party Contractors any rights inconsistent with Alector's rights to research, develop, manufacture, commercialize, or patent (or an option to obtain such rights) with respect to any applicable Non-Optioned Antibodies and each such Third Party Contractor is bound to the same confidentiality and non-use obligations as Alector is bound to under this Agreement.

(c) **No Transfer to Third Parties Other than Third Party Contractors**. During the Research Term or the Evaluation Term, Alector will not provide Program-Benefited Antibodies to any Third Party except as permitted pursuant to Section 2.4(b) (*Use of Third Party Contractors*). After expiration of the applicable Evaluation Term, Alector will not provide any Non-Optioned Antibodies to any Third Party.

(d) **Title to Adimab Materials**. Adimab retains title to the Adimab Materials, including all quantities of Program Antibodies that it provides under a Research Program, including during the Evaluation Term. At the expiration of the Evaluation Term for a Research Program, if Alector has not exercised its Option with respect to any applicable Program Antibodies within such Research Program, Alector will return to Adimab or destroy such Program Antibodies and Program-Benefited Antibodies Derived from such Program Antibodies in its possession (at Adimab's direction); *provided, however*, that notwithstanding the foregoing, should Alector exercise the Option for a given Research Program, all right, title and interest in and to the applicable Optioned Antibodies and their sequences will belong to and vest in Alector (subject to the terms and conditions of this Agreement with respect to Optioned Antibodies, including Section 9.4 (*Commitments Regarding Program-Benefited Antibodies*)).

2.5 **Alector Materials**. Adimab will use the Alector Materials solely to perform a Research Program hereunder. Adimab will not transfer the Alector Materials to any Third Party except in accordance with an agreed-upon Research Plan. Within [***] after the Research Term for such Research Program ends or promptly after termination of a Research Program, Adimab will return to Alector or destroy any remaining Alector Materials provided for such Research Program (at Alector's direction).

2.6 **Certain Restrictions on the Use of Naïve Libraries and Antibodies**.

(a)

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(b) Adimab Libraries.

(i) Antibodies within Libraries. Adimab will not be required to physically remove from its libraries, or to prevent from being included in future libraries, any Program-Benefited Antibodies. Subject to Section 2.6(a) (*Funded Discovery*), Adimab hereby reserves the right for Adimab, and those deriving rights from Adimab, to include Program-Benefited Antibodies in antibody library(ies) transferred or licensed by Adimab to Third Parties (including the transfer of physical possession of samples of Program-Benefited Antibodies to a Third Party as part of the transfer of libraries in such transactions). For clarity, Third Party recipients of Adimab's Platform Technology or Naïve Libraries are entitled to conduct any activity with respect to Program-Benefited Antibodies without contractual restriction from Adimab (although such activities may infringe Patents held by third parties, such as Patents covering a composition of matter held by Alector by virtue of the work performed by Adimab pursuant to this Agreement).

(ii) Use of Adimab Platform Technology by Platform Transferees. Nothing herein will prevent Adimab from licensing or transferring some or all of the Adimab Platform Technology to a Third Party (including technical support in connection therewith) nor will anything herein require Adimab to in any way limit the use of the Adimab Platform Technology by Adimab or a Third Party so long as Adimab complies with clauses (ii), (iii) and (iv) of Section 2.6(a) (*Funded Discovery*).

ARTICLE 3
LICENSES; OPTION; DEVELOPMENT & COMMERCIALIZATION

3.1 Mutual Research Licenses.

(a)

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

(b) **Research License to Adimab**. During the Research Term and Evaluation Term for a Research Program, Alector hereby grants to Adimab a non-exclusive, non-sublicensable (except to controlled Third Party Contractors of Adimab in accordance with Section 2.1(b) (*Conduct of Research*)) license under all Patents and Know-How Controlled by Alector solely to perform Adimab's responsibilities under the applicable Research Plan.

3.2 Commercial Rights.

(a) Option.

(i) **Option Exercise**. On a Research Program-by-Research Program basis, Adimab hereby grants Alector the exclusive option (an "**Option**") to obtain the licenses and assignments described in Section 3.2(b) (*Development and Commercialization License and Assignment*) for Program Antibodies discovered during a Research Program and those Program-Benefited Antibodies Derived therefrom, exercisable on or before the expiry of the relevant Evaluation Term by written notice to Adimab accompanied by payment of the applicable Option Fee for such Research Program. On a Research Program-by-Research Program basis, Alector will, in its written notice to exercise the Option, specify Program Antibodies to be selected as Optioned Antibodies; *provided, however*, that the total quantity of Program Antibodies shall not to exceed the Selection Cap for such Research Program, subject to Section 3.2(a)(ii) (*Option Exercise for Multispecifics*). As used herein "**Selection Cap**" means, with respect to a Research Program, an aggregate total of [***] Program Antibodies. For clarity, Alector may generate Program-Benefited Antibodies from such optioned Program Antibodies, and such Program-Benefited Antibodies [***] shall not count against the Selection Cap.

(ii) **Option Exercise for Multispecifics**. If a Research Program involves Program Antibodies against more than one Target, then exercise of the Option with respect to such Research Program includes an exercise against all Program Antibodies against such Targets under such Research Program; *provided, however*, that the Option Fee shall only be paid for Targets for which an Option Fee has not previously been paid under a prior Research Program. By way of example, in the event that Adimab delivers Program Antibodies against Target A, Program Antibodies against Target B, and bispecific Program Antibodies against both Targets A and B, then Alector would have the opportunity (but not the obligation) to exercise Options with respect to (i) up to [***] Program Antibodies against Target A, (ii) up to [***] Program Antibodies against Target B, or (iii) up to up to [***] bispecific Program Antibodies against Targets A and B, or some combination of [***] Program Antibodies from subcategories (i), (ii) and (iii) described above; *provided, however*, that in the event that Alector exercised the Options for Program Antibodies against Target A and Program Antibodies against Target B, then no additional Option Fee would be due pursuant to clause (iii) with respect to exercise of the Option for bispecific antibodies combining Program Antibodies for which the Options were exercised pursuant to clauses (i) and (ii).

(iii)

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

(b) Development and Commercialization License and Assignment.

(i) Assignment. Effective on Alector's exercise of the Option, Adimab hereby assigns to Alector, subject to the terms and conditions of this Agreement, all right, title and interest in and to all applicable Optioned Antibodies (including their sequences).

(ii) **License**. Subject to Section 3.3 (*Comparison of Program Antibodies and Program-Benefited Antibodies*), effective on Alector's exercise of the Option, Adimab hereby grants to Alector a worldwide, royalty-free, fully paid-up, non-exclusive, sublicensable through multiple tiers (solely

(iii) as provided in Section 3.2(b)(iii) (Licensees)) license under the Adimab Platform Patents, Program Inventions and Adimab Platform Technology, in the Field, to research, develop, have developed, make, have made, use, sell, offer to sell, import and export Optioned Antibodies and Products during the Term; *provided, however*, that such license excludes Excluded Technology.

(iv) **Licensees**. Alector will not license or sublicense (or grant an option to a license or sublicense to) any Non-Optioned Antibody, and any license of any Optioned Antibody and any direct or indirect license or sublicense of the rights granted under Section 3.2(b) (*Development and Commercialization License and Assignment*) (and any option to acquire such a license or sublicense) will be made solely pursuant to a written agreement (a "**Licensee Agreement**") that does not conflict with any relevant terms and conditions of this Agreement and to Licensees who explicitly agree in writing to comply with Section 9.4 (*Commitments Regarding Program-Benefited Antibodies*). Alector will remain responsible for all payments and other performance obligations due under this Agreement, notwithstanding any license or sublicense that it may grant. Within [***] of entering into a Licensee Agreement, Alector will provide Adimab with a copy of such Licensee Agreement, which copy may be redacted to remove the terms of such Licensee Agreement that are not necessary for Adimab to determine compliance with the terms of this Agreement.

3.3 Comparisons of Program Antibodies and Program-Benefited Antibodies.

(a) **Comparisons Are Permitted**. The licenses and assignments granted to Alector pursuant to Section 3.1(a) (*Research License to Alector*) and Section 3.2(b) (*Development and Commercialization License and Assignment*), include the right for Alector to compare Program-Benefited Antibodies to other antibodies, including Alector Antibodies, against a Target or any other agent, including small molecules and biological agents (*e.g.*, experimentally comparing affinities, specificities, function, etc.) and such antibodies and other agents will not be deemed to be Program-Benefited Antibodies by virtue of having conducted such comparisons.

(b)

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3.4 **Diligent Development and Commercialization**. On a Research Program-by- Research Program basis, following exercise of the Option with respect to a Research Program, Alector (itself or through its Affiliates or Licensees) will devote Commercially Reasonable Efforts to develop and commercialize [***] Product that contains an Optioned Antibody with respect to such Research Program. For clarity, Alector's obligation under this Section 3.4 (*Diligent Development and Commercialization*), will be satisfied by devoting Commercially Reasonable Efforts to develop and commercialize [***] irrespective of the number of Optioned Antibodies that exist with respect to such Research Program; *provided, however*, that development and commercialization of a single Product that contains Optioned Antibodies against more than one Target will count as development and commercialization of a Product against all Research Programs that include such Target (*e.g.*, development of a Multispecific Product with antibodies against multiple Targets will satisfy Alector's diligence obligation with respect to each Research Program that includes such Target). Notwithstanding the foregoing, Alector will not be obligated to develop or commercialize [***].

3.5 **No Implied Licenses**. Other than the licenses, covenants, options and assignments explicitly set forth in this Article 3 (*Licenses; Option; Development & Commercialization*) or in Article 5 (*Intellectual Property*), neither Party grants any intellectual property licenses, covenants, options or assignments to the other Party under this Agreement. This Agreement does not create any implied licenses.

3.6

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ARTICLE 4
FINANCIAL TERMS

4.1 **Technology Access Fee**. [***].

4.2 **Research Stage Fees**.

(a) **Research Funding**. Alector will pay Adimab, within [***] of completion of each calendar quarter and receipt by Alector of an invoice from Adimab, an amount equal to [***] of the actual FTEs expended by Adimab in the performance of its obligations hereunder during such calendar quarter (at the FTE Rate); *provided, however,* that, on a Research Plan-by-Research Plan basis, Adimab will notify Alector in the event that the FTE payments for a Research Plan are expected to exceed the amounts estimated in such Research Plan by more than [***] and upon receipt of such notification, Alector may opt to (i) continue the Research Plan as originally drafted, (ii) amend the Research Plan in order to reduce costs, or (iii) terminate such Research Plan.

(b) **Delivery Fees.**

(i) **Naïve Discovery Delivery Fee**. On a Research Program-by-Research Program basis, Adimab will invoice Alector for [***] (the "**Naïve Discovery Delivery Fee**") when due; *provided, however,* that in the case of other projects which vary substantially in scope and difficulty, the Parties will negotiate in good faith the amount of such delivery milestone payment based on the project prior to starting the applicable Research Plan. The parties understand and agree that Alector's Research Programs may and will involve transmembrane protein projects, and such fact is incorporated into the financial and other business terms described herein and elsewhere throughout this Agreement. Adimab will send Alector an invoice for the Naïve Discovery Delivery Fee at the time of Adimab's delivery to Alector of sequences for an initial panel of Program Antibodies against the Target(s) for the Research Program following completion of the screening of the applicable Naïve Library for such Target(s) and Alector will pay such amount within [***] of receipt of such invoice. The Naïve Discovery Delivery Fee will only be payable once per Research Program.

(ii)

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(iii) **Multispecific Delivery Fee**. On a Research Program-by-Research Program basis, Adimab will invoice Alector for [***] (the "**Multispecific Delivery Fee**") (plus an amount equal to any applicable Naïve Discovery Delivery Fee and any applicable Optimization Completion Fee, in each case, which was not previously paid with respect to such Research Program) upon delivery by Adimab to Alector of Multispecific Products that contain CDRs directed to two or more different Targets, none of which are an Alector Antibody; *provided, however*, that in the case of other projects which vary substantially in scope and difficulty, the Parties will negotiate in good faith the amount of the Multispecific Delivery Fee based on the project. Adimab will send Alector an invoice for the Multispecific Delivery Fee at the time of Adimab's delivery to Alector of sequences of a panel of multispecific Program Antibodies against the Targets, and Alector will pay Adimab such amount within [***] of receipt of such invoice. The Multispecific Delivery Fee will only be payable once per Research Program.

(c) **Additional Services**. From time to time, Alector and Adimab may agree, pursuant to terms of a separately agreed-upon purchase order, that Adimab will perform additional services which fall outside the scope of a Research Program. Such work may include, for example, (i) preparation of antigen or other reagents for use in a Research Program in the event that Alector does not have such materials itself, (ii) molecular biology work such as the generation of certain constructs (*e.g*., bispecifics or CAR-Ts) using Alector Materials, or (iii) non-cGMP production of antibodies in mammalian cells for use in Alector's research and evaluation of Program Antibodies. In the event that Alector and Adimab agree that Adimab will perform such additional work, then Adimab will bill Alector an agreed-upon amount for such work, which agreed-upon amount may be comprised of one or more of the following: (x) reimbursement for FTEs expended by Adimab at the FTE Rate, (y) a fixed payment for provision of the services, and (z) a delivery fee for completion of such work.

4.3 **Option Fee**. In order to exercise the Option under Section 3.2(a)(i) (*Option Exercise*) for a Research Program, in addition to sending the notice required under Section 3.2(a)(i) (*Option Exercise*), Alector will pay to Adimab a non-creditable, non-refundable option exercise fee of [***] for such Research Program (an "**Option Fee**"), plus an amount equal to any applicable Delivery Fee which was not previously paid with respect to such Research Program, and subject to Section 3.2(a)(ii) (*Option Exercise for Multispecifics*).

4.4 **Milestone Payments.**

(a) **Milestone Events**. On a Product-by-Product basis, Alector will report in writing to Adimab the achievement of each event (each, a "**Milestone Event**") and pay the corresponding per Product milestone payment (each, a "**Milestone Payment**") to Adimab, each within [***] after the achievement of the corresponding Milestone Event by such Product as described in the following table, subject to adjustments under Section 4.4(c) (*Milestone Payments for Multispecific Products*) and Section 4.4(d) (*Milestone Payments for Optimized Alector Products*) and the limitation in total payments under Section 4.4(f) (*Total Target Milestone Payment Limitation*):

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Milestone Event	Milestone Payments per Product
[***]	[***]
[***]	[***]

[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

(b) Catch-Up Payments. If a later-stage [***] Milestone Event is achieved for any Product without one or more earlier-stage [***] Milestone Events having been achieved for that Product, then Alector will pay the Milestone Payment(s) for such previous [***] Milestone Event(s) along with the payment for the most recently achieved [***]-stage Milestone Event. If a Milestone Event related to filing for Marketing Approval is achieved without one or more of the [***] Milestone Events being achieved, then Alector will pay the Milestone Payment(s) for such previous [***] Milestone Event(s) along with the payment for the first Milestone Event related to [***].

(c) Back-Up Candidates. Alector may designate one or more Products as a Back-Up Candidate to another Product designated by Alector as a Lead Product, which Lead Product is further in development than the Back-Up Candidate and is directed to the same Target (or, with respect to a Multispecific Product, the same set of Targets) as the Back-Up Candidate. In the event that a Milestone Event that was already achieved with respect to a Lead Product is also achieved with respect to a Back-Up Candidate to such Lead Product prior to receipt of Marketing Approval for the Lead Product, then Alector's obligation to pay the corresponding Milestone Payment with respect to the achievement of the applicable Milestone Event with respect to such Back-Up Candidate will be deferred until receipt of Marketing Approval of the Lead Product in accordance with the following. If Alector conducts material development activities for such Back-Up Candidate after receipt of Marketing Approval for the Lead Product, all deferred Milestone Payments for such Back-Up Candidate will become payable within [***] after receipt of such Marketing Approval and all subsequent Milestone Payments for such Back-Up Candidate will be payable within [***] after achievement of the corresponding Milestone Event with respect to such Back-Up Candidate. If Alector promptly discontinues all material development activities with respect to a Back-Up Candidate upon receipt of Marketing Approval of the Lead Product and provides Adimab with written notice thereof within [***] after receipt of such Marketing Approval of the Lead Product, Alector will not be obligated to pay the deferred Milestone Payments for such Back-Up Candidate. If Alector continues to develop such Back-Up Candidate after discontinuation of development of the Lead Product (but prior to Marketing Approval of such Lead Product), Alector will not be obligated to pay any Milestone Payments already paid with respect to such Lead Product on the basis of such Back-Up Candidate, but all Milestone Payments for Milestone Events achieved with respect to such Back-Up Candidate that were not paid to Adimab with respect to such Lead Product will be payable within [***] after achievement of the corresponding Milestone Event.

(d)

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

(e) Milestone Payments for Optimized Alector Products. Notwithstanding Section 4.4(a) (*Milestone Events*), Milestone Payments for Optimized Alector Products will be [***] of the Milestone Payments otherwise owed under Sections 4.4(a) (*Milestone Events*).

(i) Clarifications for Multispecific Products Containing Optimized Alector Antibodies. For avoidance of doubt, the Milestone Payments for a Multispecific Product that is a bispecific Optimized Alector Product with a binding portion that is an Optioned Antibody and a binding portion that is not an Optioned Antibody will be [***] of the Milestone Payments set forth in the table above in Section 4.4(a) (*Milestone Events*). Similarly, Milestone Payments for a Multispecific Product that is a trispecific Optimized Alector Product with a binding portion that is an Optioned Antibody and two other binding portions that are not an Optioned Antibody will be [***] of the Milestone Payments set forth in the table above in Section 4.4(a) (*Milestone Events*). For further avoidance of doubt, the Milestone Payments for a Multispecific Product that is a bispecific Optimized Alector Product with a binding portion that is an Optioned Antibody which is an Optimized Alector Antibody and a binding portion that is an Optioned Antibody which is not an Optimized Alector Antibody will be [***] of the Milestone Payments set forth in the table above in Section 4.4(a) (*Milestone Events*). Similarly, Milestone Payments for a Multispecific Product that is a trispecific Optimized Alector Product with a binding portion that is an Optioned Antibody that is an Optimized Alector Antibody and two other binding portions that are Optioned Antibodies which are not Optimized Alector Antibodies will be [***] of the Milestone Payments set forth in the table above in Section 4.4(a) (*Milestone Events*).

(f) Per Target Milestone Payment Limitation. Notwithstanding anything to the contrary in this Section 4.4 (*Milestone Payments*), the Milestone Payments owed for a Milestone Event with respect to a Target (or, in the case of Multispecific Products, a particular combination of Targets) shall not exceed the Milestone Payment amount corresponding to such Milestone Event set forth in the foregoing table of Section 4.4 (*Milestone Events*), no matter how many Optioned Antibody or Products for such Target (or combination of Targets) ultimately achieve such Milestone Event. In no event shall the total Milestone Payments for a Target (or combination of Targets) for all Milestone Events exceed fifteen million dollars ($15,000,000).

4.5 Royalties.

(a) Royalty Payments. As to each Product sold during the applicable Royalty Term, determined on a Target-by-Target and country-by-country basis, Alector will pay Adimab, on a Target-by-Target basis, the following royalties on Net Sales of such Product directed to such Target, at the royalty rate applicable to the relevant portion of annual worldwide Net Sales for such Product ("**Royalty Payments**") as set *forth* in the table below:

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

Portion of Worldwide Calendar Year Net Sales of all Products directed to a Target (or, in the case of MultispecificProducts, a specific combination of Targets)	**Royalty Rate**
Portion up to and including [***] in annual aggregate worldwide Net Sales of all Products directed to such Target or combination of Targets	[***]
Portion greater than [***] in annual aggregate worldwide Net Sales of all Products directed to such Target or combination of Targets	[***]

(b) Royalty Payments for Multispecific Products. Notwithstanding Section 4.5(a) (*Royalty Payments*), for Multispecific Products, Royalty Payments will be paid on each binding portion of the Multispecific Product that is an Optioned Antibody as follows: each such Royalty Payment shall be equal to [***]. For clarity, for Multispecific Products, no Royalty Payments will be owed on any binding portion of such Multispecific Product that is not an Optioned Antibody. For example, if a Multispecific Product has a first binding portion directed to Target A that is an Optioned Antibody, a second binding portion directed to Target B that is an Optioned Antibody, and a third binding portion directed to Target C that is not an Optioned Antibody, then for a year in which Alector and its Licensees generate [***] in annual aggregate worldwide Net Sales, the blended royalty rate (not accounting for any reduction for being a Multispecific Product) would be [***] and, after accounting for such reduction, a Royalty Payment of [***] would be owed for each of the first and second binding portions (for a total of [***] and no Royalty Payment would be owed on the third binding portion. For clarity, the preceding sentence shall not result in a reduction in Royalty Payments for Adimab Multispecific Products and shall not be affected by any monoclonal Product which binds to any of Targets A, B or C.

(c) Royalty Payments for Optimized Alector Products. Notwithstanding Section 4.5(a) (*Royalty Payments*), the royalty rate on Net Sales for Optimized Alector Products will be [***] of the royalty rate on Net Sales otherwise applicable under Section 4.5(a) (*Royalty Payments*). If *any* such Optimized Alector Product is a Multispecific Product, then Net Sales will be allocated as described in Section 4.5(b) (*Royalty Payments for Multispecific Products*) above and the applicable royalty rate will be reduced in accordance with this Section 4.5(c) (*Royalty Payments for Optimized Alector Products*).

(i)

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

(d) **Royalty Buy-Down**. On a [***] basis (or, in the case of Multispecific Products, [***]), Alector, at its sole option, will have the right to reduce the royalty rates set forth in the table above in Section 4.5(a) (*Royalty Payments*) to those set forth in the *following* table. Such option may be exercised at any time prior to the [***] for a Product directed to such Target or combination of Targets by written notice to Adimab accompanied by a royalty rate reduction payment of [***].

Portion of Worldwide Calendar Year Net Sales of all Products directed to a Target (or in the case of Multispecific Products, a specific combination of Targets)	**Royalty Rate**
Portion up toand including [***] in annual aggregate worldwide Net Sales of all Products directed to such Target or combination of Targets	[***]
Portion greater than [***] in annual aggregate worldwide Net Sales and less than [***] in annual aggregate worldwide Net Sales of all Products directed to such Target or combination of Targets	[***]
Portion greater than [***] in annual aggregate worldwide Net Sales of all Products directed to such Target or combination of Targets	[***]

(e)

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

(f) **Royalty Floor**. In no event will the royalty rate on Net Sales of Products ever be reduced to less than [***].

(g) **Know-How Royalty**. For clarity, the Patent licenses granted to Alector under this Agreement are non-royalty-bearing and the Parties have negotiated Royalty Payments based on the value of the Know-How (primarily in the form of trade secrets) used in the generation of Optioned Antibodies that are assigned to Alector hereunder with the expectation that Alector will obtain its own Patent protection for Products.

4.6 **Quarterly Payment Timings**. All Royalty Payments due under Section 4.5 (*Royalties*) will be paid quarterly within [***] after the end of the relevant calendar quarter for which royalties are due.

4.7 **Royalty Payment Reports**. With respect to each calendar quarter, within [***] after the end of the calendar quarter, Alector will provide to Adimab a written report stating the number and description of all Products sold during the relevant calendar quarter; the gross sales associated with such sales; and the calculation of Net Sales on such sales, including the amount of any deduction provided for in the definition of Net Sales. The report will provide all such information on a country-by-country and Product-by-Product basis.

4.8 **Payment Method**. All payments due under this Agreement to Adimab will be made by bank wire transfer in immediately available funds to an account designated by Adimab. All payments hereunder will be made in the legal currency of the United States of America, and all references to "**$**" or "**dollars**" will refer to United States dollars (*i.e.*, the legal currency of the United States).

4.9

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

4.10 Records; Inspection.

(a) Maintenance of Records. Alector will keep complete and accurate records of its sales and other dispositions (including use in clinical trials, or provision on a compassionate use basis or as marketing samples) of Optioned Antibodies and Products including all records that may be necessary for the purposes of calculating all payments due under this Agreement. Alector will make such records available for inspection by an independent certified public accountant from a nationally recognized (in the U.S.) accounting firm selected by Adimab at Alector's premises in the United States on reasonable notice during regular business hours.

(b) Audit Rights. At Adimab's expense, at reasonable times and upon reasonable notice but in no event more than [***] per calendar year, Adimab has the right to retain an independent certified public accountant from a nationally recognized (in the U.S.) accounting firm to perform on behalf of Adimab an audit, conducted in accordance with U.S. generally accepted accounting principles (GAAP), of such books and records of Alector as are reasonably deemed necessary by the independent public accountant for the sole purpose of verifying the report on Net Sales for the period or periods requested by Adimab and the correctness of any report or payments made under this Agreement, in each case within the [***] most recent calendar years as of the date of the request for review. Results of any such examination will be made available to both Adimab and Alector. The independent, certified public accountant will enter into a reasonable confidentiality agreement with Alector prior to such audit and will disclose to Adimab only the amount of payments, if any, that the independent auditor believes to be due and payable hereunder, details concerning any discrepancy from the amount paid and the amount due, and will disclose no other information revealed in such audit. Any information regarding Alector or such audit disclosed to Adimab will be deemed the Confidential Information of Alector.

(c) Underpayment. If the audit reveals an underpayment, Alector will promptly pay to Adimab the amount of such underpayment plus interest in accordance with Section 4.14 (*Late Payments*). If the audit reveals that the monies owed by Alector to Adimab have been understated by more than [***] for the period audited, Alector will, in addition, pay the costs of such audit.

4.11

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

4.12 **Foreign Exchange**. If any currency conversion will be required in connection with the calculation of amounts payable hereunder, such conversion will be made using the exchange rates reported on the fifth (5th) business day prior the payment due date for the purchase and sale of U.S. dollars, as reported by the Wall Street Journal. With any payment in relation to which a currency conversion is performed to calculate the amount of payment due, Alector will provide to Adimab a true, accurate and complete copy of the exchange rates used in such calculation.

4.13 **Non-refundable, non-creditable payments**. Each payment that is required under this Agreement is non-refundable and non-creditable except to the extent set forth in Section 4.5(c) (*Adjustment for Third Party IP*).

4.14 **Third-Party Royalties**. To the extent that any Royalty Payments are due hereunder based on Net Sales of a Licensee, and Alector receives material royalty payments from such Licensee with respect to the same Product, Sections 1.47 (*Net Sales*), 4.6 (*Quarterly Payment Timing*), 4.7 (*Royalty Payment Reports*) and 4.12 (*Foreign Exchange*) will be replaced by the corresponding provisions in the Licensee Agreement, solely with respect to Royalty Payments attributable to the Product sales of such Third Party; *provided, however*, that Royalty Payments will continue to be made on a quarterly basis and such corresponding terms of such Licensee Agreement are substantially similar to the above-reference terms of this Agreement (subject to reasonable variations, for example, in the exact timing of payments or the exact foreign exchange rate to be applied).

4.15 **Late Payments**. Any amount owed by Alector to Adimab under this Agreement that is not paid within the applicable time period set forth herein will accrue interest at the rate of [***] above the then-applicable Wall Street Journal Prime Rate calculated on a daily basis, or, if lower, the highest rate permitted under applicable law.

4.16

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

ARTICLE 5
INTELLECTUAL PROPERTY

5.1 Ownership and Inventorship.

(a) Program Inventions and Program Patents.

(i) Adimab Platform Technology Patents. Adimab will solely own, regardless of inventorship, all Program Inventions and Program Patents to the extent directed to Adimab Platform Technology, including Adimab Platform Technology Improvements.

(ii) Program Antibody Patents Prior to Expiration of Evaluation Term. Alector will solely own, regardless of inventorship, all Program Antibody Patents (and the underlying Program Inventions) and Alector will direct prosecution in accordance with Section 5.4(b) (*Program Antibody Patents*). Alector agrees not to practice such Program Antibody Patents for any purpose other than to perform research in the Field for the purposes of performing Alector's responsibilities under this Agreement and a Research Plan hereunder, to evaluate Program Antibodies and to Derive and evaluate Program-Benefited Antibodies for purposes of determining whether to exercise such Option.

(iii) Program Antibody Patents After Expiration of Evaluation Term.

(1) Optioned Program Antibody Patents. On a Research Program-by-Research Program basis, from and after the date of Option exercise, Alector will continue to own, regardless of inventorship, the Optioned Program Antibody Patents (and underlying Program Inventions), subject to the terms and conditions of this Agreement.

(2) Program Antibody Patents Disclosing Non-Optioned Antibodies. On a Research Program-by-Research Program basis, from and after the date of expiration of the Evaluation Term, Adimab will solely own, regardless of inventorship, all Program Antibody Patents that disclose the sequence of Non-Optioned Antibodies; *provided, however*, that Alector will cause such Program Antibody Patents to be abandoned prior to publication in accordance with Section 5.4(b) (*Program Antibody Patents*) to the extent such Program Antibody Patents disclose the sequence of such Non-Optioned Antibodies and assign any rights in such Program Antibody Patents to Adimab promptly.

(iv) Other Program Patents and Program Inventions. All Program Patents and Program Inventions other than those referred in subsections (i) through (iii) of this Section 5.1(a) (*Program Inventions and Program Patents*) will be owned based on inventorship. Program Inventions which are jointly owned by Adimab and Alector may be freely practiced by both Parties. Any decision regarding the filing, prosecution, maintenance and enforcement of a Patent application on to file any Program Patents Covering such jointly owned Program Inventions will be mutually agreed by the Parties.

(b) Pre-Existing Patents. To avoid doubt, nothing in this Agreement will alter the ownership of the Parties' pre-existing Patents.

(c) Inventorship. Inventorship for purposes of this Agreement, and all intellectual property-related definitions in this Agreement, will be determined in accordance with United States patent law.

5.2 Assignment. Each Party hereby assigns to the other Party Program Inventions and associated Patents and Know-How as necessary to achieve ownership as provided in Section 5.1 (*Ownership and Inventorship*). Each assigning Party will execute and deliver all documents and instruments reasonably requested by the other Party to evidence or record such assignment or to file for, perfect or enforce the assigned rights. Each assigning Party hereby appoints the other Party as attorney-in-fact solely to execute and deliver the foregoing documents and instruments if such other Party after making reasonable inquiry does not obtain them from the assigning Party. Each Party will perform its activities under this Agreement through personnel who have made a similar assignment and appointment to and of such Party. Each assigning Party will make its relevant personnel (and their assignments and signatures on such documents and instruments) reasonably available to the other Party for assistance in accordance with this Article 5 (*Intellectual Property*) at no charge.

5.3 Disclosure. During the Research Term and Evaluation Term, each Party will promptly disclose to the other Party the making, conception or reduction to practice of any Program Inventions that disclose or Cover the sequences of one or more Program-Benefited Antibodies. Such disclosure will occur as soon as possible, but in any case within [***] after the Party determines such Program Inventions have been invented. To avoid doubt, this Section 5.3 (*Disclosure*) will not be read to require Adimab to disclose Program Inventions constituting Adimab Platform Technology Improvements to Alector.

5.4 Program Patent Prosecution and Maintenance.

(a) Adimab Platform Technology. Adimab will have the sole right (but not the obligation) to file, prosecute, maintain, defend, enforce and extend all Program Patents directed to Adimab Platform Technology Improvements and all Adimab Platform Patents, all at its own expense.

(b) Program Antibody Patents. On a Research Program-by-Research Program basis, Alector will have the sole right (but not the obligation) to file, prosecute, maintain, defend, enforce and extend all Program Antibody Patents, at Alector's expense. Such right will continue for the duration of the longer of the Evaluation Term and, if Alector exercises the Option, the Term, subject to all of the following:

(i) No Disclosure of Sequences Prior to Option Exercise. Prior to Option exercise, Alector will not disclose the sequence of any Program-Benefited Antibody in any Program Antibody Patent, or in the prosecution of any Program Antibody Patent, unless such Program Antibody Patent or such prosecution history can be prevented from publishing. Alector will prevent the publication of any such Program Antibody Patent prior to Option exercise (e.g., by exercising the Option prior to publication or expressly abandoning such Program Antibody Patent).

(ii)

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

(iii) **No Disclosure of Non-Optioned Antibodies**. If Alector *does* exercise the Option for a Research Program, then Alector will not publish or allow a Third Party acting under authority from Alector to publish the sequences of Non-Optioned Antibodies generated in such Research Program. Alector will ensure that all Program Antibody Patents that had been filed by or under authority of Alector for such Target that disclose the sequences of Non-Optioned Antibodies for that Target are abandoned in a timely manner to the extent necessary to prevent such sequences from being published and within [***] after Option exercise, Alector will make any and all filings necessary to result in such abandonment without such publication (at Alector's expense) and provide documentation thereof to Adimab, and the licenses to such Program Antibody Patents provided to Alector under Article 3 (*Licenses; Option; Development & Commercialization*) will expire with respect to such Non-Optioned Antibodies as of the exercise of such Option. For clarity, notwithstanding anything to the contrary in this Agreement, in no event will Alector be obligated to abandon any Program Antibody Patent to the extent it discloses the sequence of any Alector Antibody, even if such sequence is common to a Non-Optioned Antibody or any other Program-Benefited Antibody for which Alector does not exercise the applicable Option.

(iv) **Prosecution of Patents**. If Alector *does* exercise the Option, Alector or a Licensee will use Commercially Reasonable Efforts to prosecute [***] corresponding Optioned Program Antibody Patent in [***], and such other countries as are required to be consistent with the Commercially Reasonable Efforts standard. Alector will have the sole right, at its sole expense and in its sole discretion, to prepare, file, prosecute, enforce, maintain and extend (including conducting or participating in *inter partes* reviews, post grant reviews, derivations, interferences and oppositions and the like) all Optioned Program Antibody Patents.

(v) **Costs of Prosecution**. Alector will be solely responsible for all costs of the activities under this Section 5.4(b) (*Program Antibody Patents*), except to the extent Adimab hires counsel to review and comment on Alector's prosecution, in which case Adimab will be solely responsible for the fees to such counsel.

(vi) **Right to Review**. With respect to the filing, prosecution and maintenance of Program Antibody Patents, Alector agrees to provide Adimab a reasonable opportunity to review and comments on drafts of any material filings or responses to be made to the applicable patent authorities together with material correspondence from such patent authorities related thereto, and shall consider in good faith Adimab's timely submitted requests and suggestions with respect to such filings and responses.

(vii)

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

(c) **Responsibility**. It is understood and agreed that searching for, identification and evaluation of Third Party Patents that may apply to any Excluded Technology or Sequence IP, including Patents that apply Program-Benefited Antibodies and Products based on sequence, Target, methods of treatment using any Program-Benefited Antibodies, or the like is the responsibility of Alector, and that Adimab will have no responsibility for the foregoing nor liability if any such Third-Party Patents exist; *provided, however*, that the foregoing shall not diminish or otherwise mitigate Adimab's obligations under Section 7.2(e) (*No Incorporation of Proprietary Technology*).

5.5 **Cooperation of the Parties**. At the reasonable request of the responsible Party (as provided for in this Article 5 (*Intellectual Property*)), the other Party agrees to cooperate fully in the preparation, filing, prosecution, enforcement and maintenance (including conducting or participating in *inter partes* reviews, post grant reviews, derivation proceedings, interferences and oppositions and the like) of any Program Patents under this Agreement. Such cooperation includes executing all papers and instruments (or causing its personnel to do so) reasonably useful to enable the other Party to apply for and to prosecute patent applications in any country; and promptly informing the other Party of any matters coming to such Party's attention that may affect the preparation, filing, prosecution, enforcement or maintenance of any such Patents and joining Alector as a party plaintiff if necessary to obtain standing for any enforcement action. Notwithstanding the foregoing, Adimab will not be required pursuant hereto to disclose Adimab Platform Technology to Alector or to participate in any action against another Adimab customer. For avoidance of doubt, neither Party will not file, prosecute, maintain, defend, enforce or extend any Program Patents Covering any other Program Inventions owned by the other Party, whether or not Alector exercises the relevant Option.

ARTICLE 6
CONFIDENTIALITY; PUBLICITY

6.1 **General Confidentiality Obligations.**

(a) **Ownership of Confidential Information**. Any and all confidential or proprietary information disclosed to one Party by the other Party under this Agreement, including information regarding additional potential areas of collaboration between the Parties, is the "**Confidential Information**" of the disclosing Party; *provided, however*, that, notwithstanding the foregoing, (i) Confidential Information which constitutes Know-How will be owned by the Party which owns such Know-How as a result of the application of Article 5 (*Intellectual Property*), (ii) information to the extent related to Adimab Platform Technology and information embodied in Adimab Materials is Adimab's Confidential Information, and (iii) the identity of each Target or any specific epitope sequences of such Target and information embodied in the Alector Materials is Alector's Confidential Information.

(b)

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

(c) **Treatment of CDR Sequence Information**. To avoid doubt, prior to exercise of the Option with respect to a Research Program, sequence information with respect to the CDRs of Program Antibodies generated under such Research Program will be deemed the Confidential Information of both Parties. From and after the date of expiration of the Evaluation Term, (i) the sequence information as to the CDRs of Optioned Antibodies, if any, will be the Confidential Information of Alector and not Adimab, and (ii) the sequence information as to the CDRs of Non-Optioned Antibodies will be the Confidential Information of Adimab. Notwithstanding the foregoing, all sequence information with respect to Alector Antibodies will be the Confidential Information of Alector and the foregoing two sentences will permit Adimab's disclosure of the sequence information of an Optimized Alector Antibody only to the extent such disclosure does not disclose sequences of an Alector Antibody.

(d) **Limits on Use and Disclosure of Confidential Information**. Each Party will receive and maintain the other Party's Confidential Information in strict confidence. Neither Party will disclose any Confidential Information of the other Party to any Third Party. Neither Party will use the Confidential Information of the other Party for any purpose other than as required to perform its obligations or exercise its rights hereunder. Each Party may disclose the other Party's Confidential Information to the receiving Party's employees and contractors requiring access thereto for the purposes of this Agreement, *provided, however*, that prior to making any such disclosures, each such person will be bound by written agreement to maintain Confidential Information in confidence and not to use such information for any purpose other than to exercise such Party's rights or fulfill its obligations under this Agreement. Each Party agrees to take Commercially Reasonable Efforts to ensure that the other Party's Confidential Information will be maintained in confidence including such steps as it takes to prevent the disclosure of its own proprietary and confidential information of like character. Each Party agrees that this Agreement will be binding upon its employees and contractors involved in the activities contemplated hereby and that it will be liable for any breach by its employees or contractors. Each Party will take all steps necessary to ensure that its employees and contractors will comply with the terms and conditions of this Agreement. The foregoing obligations of confidentiality and non-use will survive, and remain in effect for a period of [***] from, the termination or expiration of this Agreement in accordance with Article 9 (*Term*).

6.2

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

6.3 Required Disclosures. If either Party is required, pursuant to a governmental law, regulation or order, to disclose any Confidential Information of the other Party, the Party which is required to disclose the Confidential Information of the other Party (a) will give advance written notice to the other Party, (b) will make a reasonable effort to assist the other Party to obtain a protective order requiring that the Confidential Information so disclosed be used only for the purposes for which the law, regulation or order required, and (c) will use and disclose the Confidential Information solely to the extent required by the law, regulation or order.

6.4 Terms of Agreement. The terms of this Agreement are the Confidential Information of both Parties. However, each Party will be entitled to disclose, without the other Party's consent, the terms of this Agreement under legally binding obligations of confidence and limited use to: legal, financial and investment banking advisors; accountants, and potential and actual investors, lenders, acquirers and licensees or sublicensees doing diligence and counsel for the foregoing, as well as others upon consent solely on a need-to-know basis with such consent not to be unreasonably withheld. In addition, if legally required, a copy of this Agreement may be filed by either Party with the U.S. Securities and Exchange Commission (or relevant ex-U.S. counterpart). In that case, the filing Party will if requested by the other Party diligently seek confidential treatment for terms of this Agreement for which confidential treatment is reasonably available, and will provide the non-filing Party reasonable advance notice of the terms proposed for redactions and a reasonable opportunity to request that the filing Party make additional redactions to the extent confidential treatment is reasonably available under the law. The filing Party will seek and diligently pursue such confidential treatment requested by the non-filing Party.

6.5 Return of Confidential Information. Promptly after the termination or expiration of this Agreement for any reason, each Party will return to the other Party all tangible manifestations of such other Party's Confidential Information at that time in the possession of the receiving Party and that the receiving Party does not have a continuing right to use; *provided, however*, that such receiving Party may retain one (1) copy of each document or description thereof in its files for the sole purpose of maintaining a record of what it received in confidence and to comply with its confidentiality obligations hereunder; and that the obligation of the receiving Party to return Confidential Information pursuant to this Section 6.5 (*Return of Confidential Information*) will not apply (a) to copies of electronically exchanged Confidential Information made as a matter of routine information technology backup, *provided, however, that* it is only accessible to receiving Party's permitted recipients that are responsible for maintaining the receiving Party's electronic backup services, and (b) to Confidential Information or copies thereof which must be retained pursuant to mandatory applicable law. Any Confidential Information retained will continue to be subject to the terms of this Agreement.

6.6 Publicity.

(a) Press Releases. Neither Party may publish a press release disclosing the existence of this Agreement or any other information pertaining to this Agreement without the prior written consent of the other Party. Other than repeating information in such press release (or any subsequent mutually agreed press release) or as otherwise expressly permitted herein, neither Party

will generate or allow any further publicity regarding this Agreement or the transaction or research contemplated hereunder in which the other Party is identified, without giving the other Party the opportunity to approve such press release.

(b) Announcement of Subsequent Events. The Parties recognize the importance of announcing the exercise of any Option and the achievement of Milestone Events, and agree that Adimab may disclose these occurrences after Alector has publicly disclosed such occurrences. At Adimab's discretion, Adimab will propose the text of an Adimab press release to announce each such event and Alector will have the opportunity to review and approve such text (such approval not to be unreasonably withheld). For clarity, Alector is free to disclose the achievement of significant development events without the prior approval of Adimab, and where not unreasonably cumbersome, Alector will include in such disclosure a recognition of Adimab as the source of the Program-Benefited Antibodies in such Products.

(c) Bundled Press Releases. It is understood and agreed that Adimab sometimes issues press releases that group multiple achievements of Adimab (such as expanded collaborations, option exercises, and achievement of milestones). It is understood and agreed that Adimab may choose to group text from an approved press release, or the announcement of Option exercise or achievement of a Milestone Event that it is entitled to disclose pursuant to Section 6.6(b) (*Announcement of Subsequent Events*), with other accomplishments or events not relating to this Agreement and, in such event, the only portion of the press release as to which Alector will have a consent right (such consent not to be unreasonably withheld) will be those portions that relate to this Agreement.

(d) Acknowledgement. In public disclosures (*e.g.*, press releases, posters, publications) regarding the discovery and/or identification of Optioned Antibodies or Products, Alector will acknowledge that such Optioned Antibodies or Products were discovered or optimized, as applicable, using "the Adimab Platform", and will include Adimab co-authors, as appropriate in accordance with standard industry practice. Adimab will provide an electronic version of its logo for use in such contexts by Alector upon request.

6.7 Certain Data. The Parties recognize the need for Adimab to advance and disclose the general capabilities of the Adimab Platform Technology. In connection therewith, notwithstanding this Article 6 (*Confidentiality; Publicity*), without disclosing Alector's identity, the identity of the Target (although the class of protein of the Target may be disclosed), the sequence of any Program Antibody, or any information that would allow for identification of Alector, the Target, or such sequence, Adimab will be entitled to use and disclose generally Program Antibody attributes and Program Inventions on an aggregated basis, consisting of the following: (a) Program Antibody binding affinities, (b) expression range regarding Program Antibodies, (c) germline distribution of Program Antibodies, (d) Program Antibody format (*e.g.*, monoclonal, Morrison multispecific, etc.), (e) developability data (*e.g.*, polyspecificity, expressibility, and aggregation data) and (f) stage of development of Program-Benefited Antibodies (*e.g.*, "preclinical" or "Phase I").

ARTICLE 7
REPRESENTATIONS AND WARRANTIES

7.1 Mutual Representations. Each of Adimab and Alector hereby represents and warrants to the other of them that the representing and warranting Party is duly organized in its jurisdiction of incorporation; that the representing and warranting Party has the full power and authority to enter into this Agreement; that this Agreement is binding upon the representing and warranting Party; that this Agreement has been duly authorized by all requisite corporate action within the representing and warranting Party; and that the execution, delivery and performance by the representing and warranting Party of this Agreement and its compliance with the terms and conditions hereof does not and will not conflict with or result in a breach of any of the terms and conditions of or constitute a default under (a) any agreement or other instrument binding or affecting it or its property, (b) the provisions of its bylaws or other governing documents or (c) any order, writ, injunction or decree of any governmental authority entered against it or by which any of its property is bound.

7.2 Representations of Adimab. Adimab hereby represents and warrants to Alector that, as of the Effective Date, and covenants with respect to Section 7.2(e) (*No Incorporation of Proprietary Technology*):

(a) No Complaints. There are no complaints filed in court or, to Adimab's knowledge, otherwise threatened, in each case pending or relating to Adimab Platform Patents or Adimab Platform Technology which, if decided in a manner adverse to Adimab, would materially affect Adimab's practice of the Adimab Platform Technology as contemplated by this Agreement or Alector's rights to exploit the Optioned Antibodies or Products.

(b) No Judgments. There are no judgments or settlements against Adimab or to which it is party which will materially affect Adimab's practice of the Adimab Platform Technology as contemplated in this Agreement or Alector's rights to exploit the Optioned Antibodies or Products. Adimab is not party to any settlement discussions that, if concluded as of the Effective Date, would result in a settlement which would materially affect Adimab's practice of the Adimab Platform Technology as contemplated in this Agreement or Alector's rights to exploit the Optioned Antibodies or Products.

(c) No Misappropriation of Trade Secrets. To Adimab's knowledge, the conception, development and reduction to practice of the Adimab Platform Technology, as it exists on the Effective Date, have not constituted or involved the misappropriation of trade secrets, know-how or similar rights or property of any person.

(d) No Infringement. In Adimab's reasonable judgment, the practice of the Adimab Platform Technology, as practiced by Adimab as of the Effective Date, does not infringe a valid, issued Patent owned by a Third Party of which Adimab has knowledge.

(e) No Incorporation of Proprietary Technology. Adimab covenants to promptly (and in any event, prior to the Parties' agreement on the applicable Research Plan) inform Alector in writing after receipt of any Target Questionnaire from Alector after the Effective Date in

the event Adimab Controls any Patent or Know-How which would constitute Excluded Technology and which is contemplated for use in a Research Plan to be developed based on such Target Questionnaire. Further, Adimab will not incorporate any Excluded Technology (or any other proprietary subject matter that would not be included in the assignment or licenses granted under Section 3.2(b)(i) (*Assignment*) or 3.2(b)(i) (*License*)), owned or controlled by Adimab into any Program Antibody without Alector's prior written permission. If, notwithstanding the foregoing sentence, Adimab incorporates any such subject matter (including Excluded Technology) into a Program Antibody, Adimab will and hereby does include such subject matter in the licenses granted to Alector under Section 3.1(a) (*Research License to Alector*) and, subject to Alector exercising its Option and selecting such Program Antibody as an Optioned Antibody, 3.2(b)(i) (*Licenses*). Adimab covenants not to misappropriate any trade secrets, know-how or similar rights of any person in the course of development of each Program Antibody.

(f) Representation on Excluded Technology. Notwithstanding the foregoing in this Section 7.2 (Representations of Adimab), Adimab specifically excludes any representations with respect to Alector's use of any (i) Excluded Technology and (ii) Sequence IP, [***].

7.3 DISCLAIMER OF WARRANTIES. OTHER THAN THE EXPRESS WARRANTIES OF SECTION 7.1 (MUTUAL REPRESENTATIONS) AND SECTION 7.2 (REPRESENTATIONS OF ADIMAB), EACH PARTY DISCLAIMS ALL WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR THAT ANY PRODUCTS DEVELOPED UNDER THIS AGREEMENT ARE FREE FROM THE RIGHTFUL CLAIM OF ANY THIRD PARTY, BY WAY OF INFRINGEMENT OR THE LIKE OR THAT ANY PROGRAM PATENTS WILL ISSUE OR BE VALID OR ENFORCEABLE.

ARTICLE 8
INDEMNIFICATION

8.1 Indemnification by Adimab. Adimab hereby agrees to indemnify, defend and hold harmless (collectively, "**Indemnify**") Alector and its directors, officers, agents and employees (collectively, "**Alector Indemnitees**") from and against any and all liability, loss, damage or expense (including without limitation reasonable attorneys' fees) (collectively, "**Losses**") they may suffer as the result of Third Party claims, demands and actions (collectively, "**Third-Party Claims**") arising out of or relating to: (a) the negligence or intentional misconduct of any Adimab Indemnitee; or (b) breach of a representation or warranty made by Adimab under Article 7 (*Representations and Warranties*), except in each case to the extent of any Losses (a) attributable to the negligence or intentional misconduct of any Alector Indemnitee, or (b) for which Alector is required to Indemnify Adimab pursuant to Section 8.2 (*Indemnification by Alector*), as to which Losses each Party shall indemnify the other to the extent of their respective liability for such Losses under this ARTICLE 8 (*Indemnification*).

8.2

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

8.3 Indemnification Procedures. Each of the foregoing agreements to Indemnify is conditioned on the relevant Adimab Indemnitees or Alector Indemnitees (a) providing prompt written notice of any Third-Party Claim giving rise to an indemnification obligation hereunder, (b) permitting the indemnifying Party to assume full responsibility to investigate, prepare for and defend against any such Third-Party Claim (but only to the extent and for such period of time as such indemnifying Party agrees in writing with such indemnified Party that the indemnifying Party will be solely responsible for any and all such monetary damages), (c) providing reasonable assistance in the defense of such claim at the indemnifying Party's reasonable expense, and (d) not compromising or settling such Third-Party Claim without the indemnifying Party's advance written consent. If the Parties cannot agree as to the application of the foregoing Section 8.1 (*Indemnification by Adimab*) and Section 8.2 (*Indemnification by Alector*), each may conduct separate defenses of the Third-Party Claim, and each Party reserves the right to claim indemnity from the other in accordance with this Article 8 (*Indemnification*) upon the resolution of the underlying Third-Party Claim.

8.4 Limitation of Liability. EXCEPT TO THE EXTENT SUCH PARTY MAY BE REQUIRED TO INDEMNIFY THE OTHER PARTY UNDER THIS ARTICLE 8 (INDEMNIFICATION), SECTION 9.4 (COMMITMENTS REGARDING PROGRAM-BENEFITED ANTIBODIES), OR ARTICLE 6 (CONFIDENTIALITY; PUBLICITY), NEITHER PARTY WILL BE LIABLE FOR ANY SPECIAL, INDIRECT, EXEMPLARY, CONSEQUENTIAL OR PUNITIVE DAMAGES HEREUNDER, WHETHER IN CONTRACT, WARRANTY, TORT, STRICT LIABILITY OR OTHERWISE.

ARTICLE 9
TERM

9.1 Term. The term (the "**Term**") of this Agreement will commence on the Effective Date and will expire upon (a) in the event that no Option is exercised, the conclusion of the last-to-expire Evaluation Term; or (b) in the event that an Option is exercised, on a country-by-country and Product-by-Product basis on the expiration of the last Royalty Term for a Product in the particular country, in each case, unless earlier terminated by a Party as set forth in this Article 9 (*Term*). Upon expiration of the Term, on a Product-by-Product and country-by-country basis, all licenses granted to Alector hereunder with respect to such Product and country will continue on a non-exclusive, fully paid, worldwide, royalty-free, irrevocable basis, including the right to grant and authorize sublicenses.

9.2 Material Breach. Either Party may terminate this Agreement for the material breach of this Agreement by the other Party, if such breach remains uncured [***] following written notice from the non-breaching Party to the breaching Party specifying such breach and specifically referencing this Section 9.2 (*Material Breach*), subject to Section 10.2 (*Dispute Resolution*).

9.3 Termination for Convenience. Alector may terminate this Agreement in its entirety or with respect to a particular Research Program at any time upon [***] written notice to Adimab.

9.4 Commitments Regarding Program-Benefited Antibodies.

(a) Use of Program-Benefited Antibodies During the Evaluation Term. During the Evaluation Term with respect to a Research Program, Alector will not seek to or actually research, develop or commercialize any Program-Benefited Antibody, or product containing the foregoing, other than the activities permitted hereunder during the Research Term and the Evaluation Term for the purpose of performing its obligations under this Agreement and a Research Plan and determining whether or not to exercise the Option for a given Research Program.

(b) Use of Program-Benefited Antibodies After Expiration of the Evaluation Term. After the expiration of the Evaluation Term with respect to a Research Program, Alector and its Licensees will not research, develop, manufacture or commercialize (i) Program-Benefited Antibodies within such Research Program other than Optioned Antibodies or (ii) Non-Optioned Antibodies from such Research Program.

(c) No Use of Program-Benefited Antibodies After Termination. If this Agreement expires or terminates in its entirety (other than an expiration under Section 9.1 (*Term*) following an Option exercise after all applicable Royalty Terms have expired), Alector and (subject to Section 9.7 (*Survival of Licensee Agreements*)) its Licensees (i) will not research, develop, manufacture or commercialize any Program-Benefited Antibody or Product containing a Program-Benefited Antibody, (ii) will not license or otherwise grant rights under the Optioned Program Antibody Patents to any entity to research, develop, manufacture, or commercialize any Program-Benefited Antibodies or Product containing such Program-Benefited Antibodies, and (iii) will not practice, license, or assign to a Third Party, option to a Third Party, or covenant not to sue a Third Party, with respect to Optioned Program Antibody Patents (regardless of inventorship) to the extent they Cover Program-Benefited Antibodies, or Products containing them.

(d)

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

(e) Termination with Respect to a Research Program. If this Agreement terminates with respect to a particular Research Program, Alector and (subject to Section 9.7 (*Survival of Licensee Agreements*)), its Licensees (a) shall not research, develop, manufacture or commercialize any Program-Benefited Antibodies provided by Adimab pursuant to such Research Program or any antibodies Derived therefrom (excluding Optioned Antibodies from a Research Program as to which this Agreement has not terminated) or Products containing such Program-Benefited Antibodies or antibodies Derived therefrom ("**Terminated Antibodies"** and **"Terminated Products**," respectively), (b) shall not license or otherwise grant rights under the Optioned Antibody Patents to any entity to research, develop, manufacture, or commercialize any such Terminated Antibodies or Terminated Products, and (c) shall not practice, license or assign to a Third Party, option to a Third Party or covenant not to sue a Third Party with respect to Optioned Antibody Patents (regardless of inventorship), to the extent they Cover such Terminated Antibodies or Terminated Products. For clarity, in such event, all further obligations of Alector with respect to such Research Program, Terminated Antibodies and Terminated Products, including those under Sections 3.4 (*Diligent Development and Commercialization*) and 4.2 (*Research Stage Fees*), shall terminate, except for those obligations that survive in accordance with Section 9.5 (*Survival in All Cases*) below. If this Agreement has terminated with respect to all Research Programs for a particular Target, Alector's obligations under Section 3.4 (*Diligent Development and Commercialization*) shall terminate with respect to such Target.

9.5 Survival in All Cases. Termination of this Agreement will be without prejudice to or limitation on any other remedies available to nor any accrued obligations of either Party. In addition, Section 2.4 (*Adimab Materials*), Section 2.5 (*Alector Materials*), Section 2.6 (*Certain Restrictions on the Use of Naïve Libraries and Antibodies*), Section 3.5 (*No Implied Licenses*), Section 4.6 (*Quarterly Payment Timings*) through Section 4.15 (*Late Payments*) (with respect to payment obligations outstanding or having accrued with respect to milestone events achieved or sales made as the effective date of termination or expiration), Section 5.1 (*Ownership and Inventorship*), Section 5.2 (*Assignment*), Section 5.4 (*Program Patent Prosecution and Maintenance*), Section 5.5 (*Cooperation of the Parties*), Section 7.3 (*Disclaimer of Warranties*), Section 9.1 (*Consequences of Expiration of the Term*) (last sentence only), Section 9.4 (*Commitments Regarding Program-Benefited Antibodies*) (*provided, however,* that Section 9.4(d) (*Payment Commitment for Optioned Antibodies*) shall survive only with respect to amounts accrued prior to expiration of termination of this Agreement), Section 9.5 (*Survival in All Cases*), Section 9.6 (Return of Adimab Materials), and Section 9.7 (*Survival of License Agreements*) and Article 1 (*Definitions*), Article 6 (*Confidentiality; Publicity*), Article 8 (*Indemnification*), and Article 10 (*Miscellaneous*) will survive any expiration or termination of this Agreement.

9.6 Return of Adimab Materials. Alector will either return to Adimab or destroy (at Adimab's direction) all Adimab Materials (other than Adimab Materials relating to Optioned Antibodies) upon expiration or termination of the Evaluation Term without the Option being exercised, and all Adimab Materials on expiration or termination of this Agreement.

9.7 Survival of Licensee Agreements. In the event that: (a) Alector has entered into a Licensee Agreement consistent with the terms of this Agreement (including the provisions of Section 3.2(b)(iii) (*Licensees*)), which Licensee Agreement includes either (i) worldwide commercialization rights, or (ii) commercialization rights for, at a minimum, [***]; (b) this Agreement is terminated; and (c) such Licensee Agreement is in effect at the time of such termination; then such Licensee Agreement (including any sublicense of rights hereunder granted pursuant to such Licensee Agreement) will (at the election of the Licensee) survive such termination of this Agreement, and Section 9.4(c) (*No Use of Program-Benefited Antibodies After Termination*) shall not apply to such Licensee so long as the Licensee assumes all of Alector's obligations hereunder with respect to the Optioned Antibodies covered by such Licensee Agreement to the extent such obligations and rights are applicable to activities of such Licensee following such termination (including those obligations set forth in Section 2.3(b) (*Reports By Alector*) and Section 3.4 (*Diligent Development and Commercialization*)) and pays to Adimab all amounts that would have been due to Adimab from Alector as a result of Licensee's activities after such termination (including those obligations set forth in Article 4 (*Financial Terms*)) and otherwise accepts Alector's responsibilities hereunder, including those set forth in Section 9.4 (*Commitments Regarding Program-Benefited Antibodies*) to the extent such obligations and rights are applicable to activities of such Licensee following such termination. If the Licensee elects for its License Agreement to survive, then upon request by either Adimab or such Licensee, Adimab and the Licensee will enter into appropriate agreements or amendments to the Licensee Agreement to reflect the provisions of this Section 9.7 (*Survival of Licensee Agreements*). In such event, if Adimab and such Licensee cannot agree on the terms of such agreements or amendments, the same shall be determined pursuant to Section 10.2(c) (*Arbitration*), *mutatis mutandis*.

ARTICLE 10
MISCELLANEOUS

10.1 Independent Contractors. The Parties will perform their obligations under this Agreement as independent contractors. Nothing contained in this Agreement will be construed to be inconsistent with such relationship or status. This Agreement and the Parties' relationship in connection with it will not constitute, create or in any way be interpreted as a joint venture, fiduciary relationship, partnership, or agency of any kind.

10.2 Dispute Resolution.

(a) Initial Dispute Resolution. Either Party may refer any dispute in connection with this Agreement ("**Dispute**") not resolved by discussion of the Alliance Managers to senior executives of the Parties (for Adimab, its CEO, or his or her designee and for Alector, its CEO, or his or her designee) for good-faith discussions over a period of not less than [***] (the "**Senior Executives Discussions**"). Each Party will make its executives reasonably available for such discussions.

(b)

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

(c) Arbitration.

(i) Use of AAA. Any Dispute referred for arbitration will be finally resolved by binding arbitration in accordance with the most applicable rules of the AAA and judgment on the arbitration award may be entered in any court having jurisdiction.

(ii) Selection of Arbitrators. The arbitration will be conducted by a panel of three (3) people experienced in the business of biopharmaceuticals. If the issues in dispute involve scientific, technical or commercial matters, then any arbitrator chosen under this Agreement will have educational training or industry experience sufficient to demonstrate a reasonable level of relevant scientific, technical and commercial knowledge as applied to the pharmaceutical industry. If the issues in dispute involve patent matters, then at least one (1) of the arbitrators will be a licensed patent attorney or otherwise knowledgeable about patent law matters. Within [***] after a Party demands arbitration, each Party will select one person to act as arbitrator, and the two Party-selected arbitrators will select a third arbitrator within [***] after their own appointment. If the arbitrators selected by the Parties are unable or fail to agree upon the third arbitrator, then the third arbitrator will be appointed by the AAA. The place of arbitration will be New York, New York. All proceedings and communications as part of the arbitration will be in English. The arbitrators will complete the arbitration proceedings and render an award within [***] after the third arbitrator is appointed.

(iii) Costs. Each Party will bear its own costs and expenses and attorneys' fees and an equal share of the arbitrators' fees and any administrative fees for arbitration, unless in each case the arbitrators agree otherwise, which they are hereby empowered, authorized and instructed to do if they determine that to be fair and appropriate.

(iv) Confidentiality of Process and Awards. Except under reasonable conditions of confidentiality or to the extent necessary to confirm an award or as may be required by law, regulation, or the requirement of any exchange on which a Party's shares are traded, neither Party will disclose the existence, content or results of an arbitration under this Agreement without the prior written consent of the other Party, which shall not be unreasonably withheld, conditioned or delayed.

(v) Statute of Limitations. In no event will an arbitration be initiated after the date when commencement of a legal or equitable proceeding based on the subject matter of the Dispute would be barred by the applicable statute of limitations under New York law.

(vi) Disputed Breach. In the event a Party disputes an alleged material breach of this Agreement by written notice to the other Party, such other Party's right to terminate this Agreement under Section 9.2 (*Material Breach*) shall be stayed, and any applicable cure period shall be tolled, during the pendency of the Dispute.

10.3

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

10.4 **Entire Agreement**. This Agreement (including its Exhibits) set forth all the covenants, promises, agreements, warranties, representations, conditions and understandings between the Parties with respect to the subject matter hereof and supersedes and terminates all prior agreements and understandings between the Parties with respect to such subject matter. No subsequent alteration, amendment, change or addition to this Agreement will be binding upon the Parties unless reduced to writing and signed by the respective authorized officers of the Parties.

10.5 **Assignment**. Neither Party may assign in whole or in part this Agreement without the advance written consent of the other Party, except as set forth in the following sentences. Either Party may assign this Agreement in its entirety without such consent to an Affiliate or to the successor to all or substantially all of its stock or assets to which this Agreement relates in connection with its merger with, or the sale of all or substantially all of its stock or assets to which this Agreement relates to, another entity, regardless of the form of the transaction. In addition, Adimab may assign this Agreement or any of its rights under this Agreement, without Alector's consent, in connection with the sale of, monetization of, transfer of, or obtaining financing on the basis of the payments due to Adimab under this Agreement or debt or project financing in connection with this Agreement. This Agreement will be binding upon and will inure to the benefit of the Parties and their respective successors and permitted assigns. Any assignment of this Agreement not made in accordance with this Agreement is prohibited hereunder and will be null and void.

10.6 **Severability**. If one or more of the provisions in this Agreement are deemed unenforceable by law, then such provision will be deemed stricken from this Agreement and the remaining provisions will continue in full force and effect, and the Parties will substitute for the unenforceable provision an enforceable provision that conforms as nearly as possible with the original intent of the Parties.

10.7 **Force Majeure**. Both Parties will be excused from the performance of their obligations under this Agreement to the extent that such performance is prevented by a Force Majeure and the nonperforming Party promptly provides notice of the prevention to the other Party. Such excuse will be continued so long as the condition constituting Force Majeure continues and the nonperforming Party takes reasonable efforts to remove the condition, but no longer than [***].

10.8 **Notices**. Any notice required or permitted to be given under this Agreement will be in writing, will specifically refer to this Agreement and will be deemed to have been sufficiently given for all purposes if delivered by express delivery service or personally delivered, and such notice will be deemed to have been given upon receipt. Unless otherwise specified in writing, the addresses of the Parties will be as described below.

If to Adimab:

Adimab, LLC
[***]

with a required copy to:

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

In the case of Alector:

Alector LLC
[***]

10.9 Construction. This Agreement has been prepared jointly and will not be strictly construed against either Party. Ambiguities, if any, in this Agreement will not be construed against any Party, irrespective of which Party may be deemed to have authored the ambiguous provision.

10.10 Headings. The headings for each Article and Section in this Agreement have been inserted for convenience of reference only and are not intended to limit or expand on the meaning of the language contained in the particular Article or Section.

10.11 No Waiver. Any delay in enforcing a Party's rights under this Agreement or any waiver as to a particular default or other matter will not constitute a waiver of such Party's rights to the subsequent enforcement of its rights under this Agreement, excepting only as to an express written and signed waiver as to a particular matter for a particular period of time executed by an authorized officer of the waiving Party.

10.12 Performance by Affiliates. A Party may perform some or all of its obligations under this Agreement through Affiliate(s) or may exercise some or all of its rights under this Agreement through Affiliates. However, each Party will remain responsible and be guarantor of the performance by its Affiliates and will cause its Affiliates to comply with the provisions of this Agreement in connection with such performance as if such Party were performing such obligations itself, and references to a Party in this Agreement will be deemed to also reference such Affiliate. In particular and without limitation, all Affiliates of a Party that receive Confidential Information of the other Party pursuant to this Agreement will be governed and bound by all obligations set forth in Article 6 (*Confidentiality; Publicity*), and will (to avoid doubt) be subject to the intellectual property assignment and other intellectual property provisions of Article 5 (*Intellectual Property*) as if they were the original Party to this Agreement (and be deemed included in the actual Party to this Agreement for purposes of all intellectual property-related definitions). A Party and its Affiliates will be jointly and severally liable for their performance under this Agreement.

10.13 Counterparts. This Agreement may be executed in one or more identical counterparts, each of which will be deemed to be an original, and which collectively will be deemed to be one and the same instrument. In addition, signatures may be exchanged by facsimile or PDF.

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

IN WITNESS WHEREOF, the Parties have by duly authorized persons executed this Agreement to be effective as of the Effective Date. The Parties acknowledge that the signature date below may not be the Effective Date.

ALECTOR LLC:	**ADIMAB LLC:**
By: /s/ Arnon Rosenthal Chase	By: /s/ Philip
Title: CEO	Title: General Counsel
Date: August 20, 2019	Date: August 16, 2019

EXHIBITS LIST

A – TARGET QUESTIONNAIRE
B – FORM OF RESEARCH PLAN
C – FORM OF SEMI-ANNUAL PROGRAM UPDATE

Exhibit A: Partner Completed Target Questionnaire

Information you are able to provide about your target will help Adimab design a customized selection strategy and detailed work plan. This will ultimately allow Adimab to deliver antibodies that fit your desired properties.

Overview

Adimab has compiled the following set of criteria to help ensure the quality of the antigen(s) used in the selection process which will ultimately lead to a successful campaign. Any additional information the Partner can provide relating to your antigen is valuable. **When multiple forms of the antigen are available, and are used in the selection, it increases the potential success of the campaign.** As an example, an RTK-ECD can be supplied as both an Fc-fusion protein and as a tagged monomeric protein, or produced and purified using preferred host expression systems and purification tags.

Target (answers to be provided below in blue)

- What is the name of your target?
- Does your target have any other aliases?
- What is the nature of your target (e.g., extracellular domain of a membrane protein)?
- Does your target protein have an affinity tag? If yes, what tag?
- Are you aware of any post-translational modification(s) to your target protein (e.g., N-glycosylation, O-glycosylation or phosphorylation)?
- Is the target a chimeric protein (e.g., Fc-fusion protein)?
- Does your target protein interact with other proteins or form complexes? If yes, please describe.
- Does your target exist naturally as a monomer, dimer, trimer, etc.?
- Is your target available in multiple formats (e.g., monomeric, dimeric, multiple tags, etc.)?
- How stable is your target protein (e.g., stability @ 4˚C, freeze thaw cycle data)?
- Do you have access to 10 nmol quantities (e.g., ~1 mg of 75 kDa protein) of your target protein? If yes, are these immediately available or will they require time to source?

- Do you have cell-based or other assays to determine the bioactivity of your target? If yes, please describe.
- Are there targets against which negative selections or screening should be performed? If yes, please describe.
- What is the desired cross-reactivity profile of antibodies?
    - H x C – Y or N
    - H x M – Y or N
    - H x Other - Specify
- If species cross-reactivity is desired, what is the homology between the respective antigen species and human?
    - H x C –
    - H x M –
    - H x Other –
- If available, please provide Genbank accession IDs or Uniprot entry numbers:
    - Human
    - Cyno (or Rhesus) -
    - Mouse (or Rat) -

Mode of action

- Could you describe the profile of your "ideal antibody" (e.g., affinity, specificity, mode of action, expressability, etc.)?
- Do you wish to disrupt a protein-protein interaction (e.g., a receptor-ligand interaction or dimerization)?
- Do you have an existing antibody (murine or other) that binds to your target? If yes, does the antibody have the "biology" of interest and/or hit a desired epitope?
- Are you looking to discover an antibody against a known epitope or a novel epitope?
- What in vitro and in vivo screening assays are you planning to do in-house with purified IgGs discovered by Adimab?
- Is ADCC expected to be important

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

*** Certain information, as identified by [***], has been excluded from this agreement because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

Exhibit 31.1

CERTIFICATION PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002

I, Arnon Rosenthal, certify that:

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

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

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

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

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

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

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

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

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

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

Date: November 12, 2019

/s/ Arnon Rosenthal

Arnon Rosenthal, Ph.D.
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002

I, Calvin Yu, certify that:

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

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

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

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

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

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

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

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

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

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

Date: November 12, 2019

/s/ Calvin Yu

Calvin Yu
Vice President, Finance
(Principal Finance and Accounting Officer)

Exhibit 32.1

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

In connection with the Quarterly Report on Form 10-Q of Alector, Inc. (the "Company") for the period ended September 30, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned officer of the Company certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

Date: November 12, 2019

/s/ Arnon Rosenthal

Arnon Rosenthal, Ph.D.
Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

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

In connection with the Quarterly Report on Form 10-Q of Alector, Inc. (the "Company") for the period ended September 30, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned officer of the Company certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

Date: November 12, 2019

/s/ Calvin Yu

Calvin Yu
Vice President, Finance
(Principal Finance and Accounting Officer)