Table of Contents

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2018
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: 001-38311

Denali Therapeutics Inc.
(Exact name of registrant as specified in its charter)

Delaware	**46-3872213**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

151 Oyster Point Blvd., 2nd Floor
South San Francisco, CA, 94080
(Address of principal executive offices and zip code)

(650) 866-8548
(Registrant's telephone number, including area code)

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 x No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes x No ☐

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	x (Do not check if a smaller reporting company)	Smaller reporting company	☐
		Emerging growth company	x

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. x

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

The number of outstanding shares of the registrant's common stock as of August 2, 2018 was 94,807,111.

TABLE OF CONTENTS

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

Denali Therapeutics Inc.

Condensed Consolidated Balance Sheets
(Unaudited)
(In thousands, except share amounts)

	June 30, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 33,088	$ 218,375
Short-term marketable securities	339,503	187,851
Prepaid expenses and other current assets	4,827	3,381
Total current assets	377,418	409,607
Long-term marketable securities	178,703	60,750
Property and equipment, net	13,323	14,923
Other non-current assets	2,611	1,441
Total assets	$ 572,055	$ 486,721
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 9,176	$ 2,716
Accrued liabilities	5,537	5,364
Accrued compensation	2,751	5,166
Contract liability	8,715	—
Deferred rent	4,782	855
Other current liabilities	47	63
Total current liabilities	31,008	14,164
Contract liability, less current portion	49,590	—
Deferred rent, less current portion	1,029	6,294
Other non-current liabilities	156	467
Total liabilities	81,783	20,925
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Convertible preferred stock, $0.01 par value; 40,000,000 shares authorized as of June 30, 2018 and December 31, 2017; 0 shares issued and outstanding as of June 30, 2018 and December 31, 2017	—	—
Common stock, $0.01 par value; 400,000,000 shares authorized as of June 30, 2018 and December 31, 2017; 93,321,745 shares and 87,480,362 shares issued and outstanding as of June 30, 2018 and December 31, 2017, respectively	1,259	1,201
Additional paid-in capital	760,605	656,660
Accumulated other comprehensive loss	(1,493)	(368)
Accumulated deficit	(270,099)	(191,697)
Total stockholders' equity	490,272	465,796
Total liabilities and stockholders' equity	$ 572,055	$ 486,721

See accompanying notes to unaudited condensed consolidated financial statements.

Denali Therapeutics Inc.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Collaboration revenue	$ 1,648	$ —	$ 2,289	$ —
Operating expenses:				
Research and development	52,134	19,004	72,953	37,474
General and administrative	6,896	3,564	12,466	6,838
Total operating expenses	59,030	22,568	85,419	44,312
Loss from operations	(57,382)	(22,568)	(83,130)	(44,312)
Interest and other income, net	2,658	434	4,728	858
Net loss	(54,724)	(22,134)	(78,402)	(43,454)
Other comprehensive income (loss):				
Net unrealized gain (loss) on marketable securities, net of tax	(206)	18	(1,125)	(4)
Comprehensive loss	$ (54,930)	$ (22,116)	$ (79,527)	$ (43,458)
Net loss per share, basic and diluted	$ (0.59)	$ (2.29)	$ (0.86)	$ (4.65)
Weighted average number of shares outstanding, basic and diluted	92,899,524	9,670,449	91,239,274	9,346,051

See accompanying notes to unaudited condensed consolidated financial statements.

Denali Therapeutics Inc.

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

	Six Months Ended June 30,	
	2018	**2017**
Operating activities		
Net loss	$ (78,402)	$ (43,454)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	2,709	1,497
Stock–based compensation expense	7,635	1,824
Net amortization of premiums and discounts on marketable securities	(1,092)	685
Gain on disposal of property and equipment	(36)	—
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	(1,718)	1,266
Accounts payable	7,094	(446)
Accrued and other current liabilities	(1,403)	2,423
Deferred rent	(1,339)	—
Contract liability	58,305	—
Other non-current liabilities	—	(173)
Net cash used in operating activities	(8,247)	(36,378)
Investing activities		
Purchase of marketable securities	(361,686)	(28,156)
Purchase of property and equipment	(1,109)	(1,437)
Maturities and sales of marketable securities	92,049	67,050
Net cash (used in) provided by investing activities	(270,746)	37,457
Financing activities		
Payments of issuance costs related to issuance for common stock	(1,342)	—
Payments of issuance costs related to issuance for preferred stock	(44)	—
Issuance of common stock in connection with collaboration agreement	94,406	—
Proceeds from exercise of awards under equity incentive plans	1,651	375
Net cash provided by financing activities	94,671	375
Net (decrease) increase in cash, cash equivalents and restricted cash	(184,322)	1,454
Cash, cash equivalents and restricted cash at beginning of period	218,910	40,388
Cash, cash equivalents and restricted cash at end of period	$ 34,588	$ 41,842

See accompanying notes to unaudited condensed consolidated financial statements.

Denali Therapeutics Inc.
Notes to Condensed Consolidated Financial Statements
(Unaudited)

1. Significant Accounting Policies

Organization and Description of Business

Denali Therapeutics Inc. ("Denali" or the “Company”) is a biopharmaceutical company, incorporated in Delaware, that discovers and develops therapeutics to defeat neurodegenerative diseases. The Company is headquartered in South San Francisco, California.

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) for interim financial information and the instructions to Form 10-Q and Article 10 of SEC Regulation S-X for interim financial information.

These unaudited condensed consolidated financial statements and notes should be read in conjunction with the audited consolidated financial statements and notes thereto contained in the Annual Report on Form 10-K for the year ended December 31, 2017, as filed with the Securities and Exchange Commission on March 19, 2018 (the "2017 Annual Report on Form 10-K"). The condensed consolidated Balance Sheet as of December 31, 2017 was derived from the audited annual consolidated financial statements as of the period then ended. Certain information and footnote disclosures typically included in the Company's annual consolidated financial statements have been condensed or omitted. The accompanying unaudited condensed consolidated financial statements reflect all adjustments that, in the opinion of management, are necessary for a fair statement of the results of the interim periods presented. All such adjustments are of a normal recurring nature except for the impacts of adopting new accounting standards discussed below. These interim financial results are not necessarily indicative of results expected for the full fiscal year or for any subsequent interim period.

During the three and six months ended June 30, 2018, except as discussed below in the sections titled Derivatives and Hedging Activities, Revenue Recognition, and Recently Adopted Accounting Standards, there were no material changes to the Company's significant accounting and financial reporting policies from those reflected in the 2017 Annual Report on Form 10-K. For further information with regard to the Company’s Significant Accounting Policies, please refer to Note 1, "Significant Accounting Policies," to the Company’s Consolidated Financial Statements included in the 2017 Annual Report on Form 10-K.

Initial Public Offering

On December 7, 2017, the Company's Registration Statement on Form S-1 was declared effective by the SEC for Denali's initial public offering ("IPO") of common stock. In connection with the IPO, the Company sold an aggregate of 15,972,221 shares of common stock, including 2,083,333 shares sold pursuant to the underwriters’ full exercise of their option to purchase additional shares, at a price to the public of $18.00 per share. The aggregate net proceeds received by the Company from the offering, net of underwriting discounts and commissions and offering expenses, were $264.3 million. Upon the closing of the IPO, all then-outstanding shares of Company convertible preferred stock converted into 60,365,020 shares of common stock. The related carrying value of $378.6 million was reclassified to common stock and additional paid-in capital.

Principles of Consolidation

These unaudited condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiary. All intercompany balances and transactions have been eliminated on consolidation. For the Company and its subsidiary, the functional currency has been determined to be U.S. dollars. Monetary assets and liabilities denominated in foreign currency are remeasured at period-end exchange rates. Non-monetary assets and liabilities denominated in foreign currencies are remeasured at historical rates. Foreign currency transaction gains and losses resulting from remeasurement are recognized in interest and other income, net in the condensed consolidated statements of operations and comprehensive loss.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires the Company to make certain estimates, judgments 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, as well as the reported amounts of expenses during the reporting period. Actual results could differ from those estimates, and such differences could be material to the condensed consolidated financial position and statements of operations and comprehensive loss.

Concentration of Credit Risk and Other Risks and Uncertainties

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash, cash equivalents, marketable securities and forward foreign currency exchange contracts. Substantially all of the Company's cash and cash equivalents are deposited in accounts with financial institutions that management believes are of high credit quality. Such deposits have and will continue to exceed federally insured limits. The Company maintains its cash with accredited financial institutions and accordingly, such funds are subject to minimal credit risk. The Company has not experienced any losses on its cash deposits.

The Company's investment policy limits investments to certain types of securities issued by the U.S. government, its agencies and institutions with investment-grade credit ratings and places restrictions on maturities and concentration by type and issuer. The Company is exposed to credit risk in the event of a default by the financial institutions holding its cash, cash equivalents and marketable securities and issuers of marketable securities to the extent recorded on the consolidated balance sheets. As of June 30, 2018 and December 31, 2017, the Company had no off-balance sheet concentrations of credit risk.

The Company is exposed to counterparty credit risk on all of its derivative financial instruments. The Company has established and maintains strict counterparty credit guidelines and enters into hedges only with financial institutions that are investment grade or better to minimize the Company's exposure to potential defaults. The Company does not require collateral to be pledged under these agreements.

The Company is subject to a number of risks similar to other early-stage biopharmaceutical companies, including, but not limited to, the need to obtain adequate additional funding, possible failure of current or future preclinical testing or clinical trials, its reliance on third parties to conduct its clinical trials, the need to obtain regulatory and marketing approvals for its product candidates, competitors developing new technological innovations, the need to successfully commercialize and gain market acceptance of the Company's product candidates, its right to develop and commercialize its product candidates pursuant to the terms and conditions of the licenses granted to the Company, protection of proprietary technology, the ability to make milestone, royalty or other payments due under any license or collaboration agreements, and the need to secure and maintain adequate manufacturing arrangements with third parties. If the Company does not successfully commercialize or partner any of its product candidates, it will be unable to generate product revenue or achieve profitability.

Segments

The Company has one operating segment. The Company's chief operating decision maker, its Chief Executive Officer, manages the Company's operations on a consolidated basis for the purposes of allocating resources.

Restricted Cash

The Company's restricted cash consists of the letter of credit for the Company's headquarters building lease, and is included within other non-current assets on the accompanying condensed consolidated balance sheets.

Derivatives and Hedging Activities

The Company accounts for its derivative instruments as either assets or liabilities on the condensed consolidated balance sheet and measures them at fair value. Derivatives are adjusted to fair value through Interest and other income, net in the condensed consolidated statements of operations and comprehensive loss.

Revenue Recognition

License and Collaboration Revenues

The Company analyzes its collaboration arrangements to assess whether they are within the scope of ASC 808, Collaborative Arrangements ("ASC 808") to determine whether such arrangements involve joint operating activities performed by parties that are both active participants in the activities and exposed to significant risks and rewards dependent on the commercial success of such activities. This assessment is performed throughout the life of the arrangement based on changes in the responsibilities of all parties in the arrangement. For collaboration arrangements within the scope of ASC 808 that contain multiple elements, the Company first determines which elements of the collaboration are deemed to be within the scope of ASC 808 and those that are more reflective of a vendor-customer relationship and, therefore, within the scope of Topic 606. For elements of collaboration arrangements that are accounted for pursuant to ASC 808, an appropriate recognition method is determined and applied consistently, generally by analogy to Topic 606. The accounting treatment pursuant to Topic 606 is outlined below.

The terms of licensing and collaboration agreements entered into typically include payment of one or more of the following: non-refundable, up-front license fees; development, regulatory and commercial milestone payments; payments for manufacturing supply services; and royalties on net sales of licensed products. Each of these payments results in license, collaboration and other revenues, except for revenues from royalties on net sales of licensed products, which are classified as royalty revenues. The core principle of Topic 606 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received in exchange for those goods or services.

In determining the appropriate amount of revenue to be recognized as the Company fulfills its obligations under each of its agreements, the Company performs the following steps: (i) identification of the promised goods or services in the contract; (ii) determination of whether the promised goods or services are performance obligations including whether they are distinct in the context of the contract; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations based on estimated selling prices; and (v) recognition of revenue when (or as) the Company satisfies each performance obligation.

Amounts received prior to satisfying the revenue recognition criteria are recorded as contract liabilities in the Company's consolidated balance sheets. If the related performance obligation is expected to be satisfied within the next twelve months this will be classified in current liabilities. Amounts recognized as revenue prior to receipt are recorded as contract assets in the Company's consolidated balance sheets. If the Company expects to have an unconditional right to receive the consideration in the next twelve months, this will be classified in current assets. A net contract asset or liability is presented for each contract with a customer.

At contract inception, the Company assesses the goods or services promised in a contract with a customer and identifies those distinct goods and services that represent a performance obligation. A promised good or service may not be identified as a performance obligation if it is immaterial in the context of the contract with the customer, if it is not separately identifiable from other promises in the contract (either because it is not capable of being separated or because it is not separable in the context of the contract), or if the performance obligation does not provide the customer with a material right.

The Company considers the terms of the contract and its customary business practices to determine the transaction price. The transaction price is the amount of consideration to which the Company expects to be entitled in exchange for transferring promised goods or services to a customer. The consideration promised in a contract with a customer may include fixed amounts, variable amounts, or both. Variable consideration will only be included in the transaction price when it is not considered constrained, which is when it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur.

If it is determined that multiple performance obligations exist, the transaction price is allocated at the inception of the agreement to all identified performance obligations based on the relative standalone selling prices. The relative selling price for each deliverable is estimated using objective evidence if it is available. If objective evidence is not available, the Company uses its best estimate of the selling price for the deliverable.

Revenue is recognized when, or as, the Company satisfies a performance obligation by transferring a promised good or service to a customer. An asset is transferred when, or as, the customer obtains control of that asset, which for a service is considered to be as the services are received and used. The Company recognizes revenue over time by measuring the progress toward complete satisfaction of the relevant performance obligation using an appropriate input or output method based on the nature of the good or service promised to the customer.

After contract inception, the transaction price is reassessed at every period end and updated for changes such as resolution of uncertain events. Any change in the transaction price is allocated to the performance obligations on the same basis as at contract inception.

Management may be required to exercise considerable judgment in estimating revenue to be recognized. Judgment is required in identifying performance obligations, estimating the transaction price, estimating the stand-alone selling prices of identified performance obligations, which may include forecasted revenues, development timelines, reimbursement rates for personnel costs, discount rates and probabilities of technical and regulatory success, and estimating the progress towards satisfaction of performance obligations.

Net Loss per Share

Basic net loss per share is calculated by dividing the net loss by the weighted-average number of shares of common stock outstanding during the period, without consideration for common stock equivalents. Diluted net loss per share is the same as basic net loss per share, since the effects of potentially dilutive securities are antidilutive given the net loss for each period presented.

Recently Issued Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update ("ASU") No. 2016-02, *Leases (Topic 842)*, which supersedes the guidance in former ASC 840, Leases. The FASB issued further updates to this guidance in July 2018 through ASU 2018-10, *Codification Improvements to Topic 842, Leases* and ASU 2018-11, *Leases (Topic 842): Targeted Improvements.* The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less will be accounted for similar to existing guidance for operating leases today. The standard is effective for interim and annual periods beginning after December 15, 2018, with early adoption permitted, and is required to be adopted using a modified retrospective approach. The Company plans to adopt this standard on January 1, 2019. ASU 2016-02 is expected to impact the Company’s consolidated financial statements as the Company has certain operating lease arrangements for which the Company is the lessee. Management is currently evaluating the impact the adoption of ASU 2016-02 will have on the Company’s financial position and results of operations. Management expects that the adoption of this standard will result in the recognition of an asset for the right to use a leased facility on the Company’s balance sheet, as well as the recognition of a liability for the lease payments remaining on the lease. While the balance sheet presentation is expected to change, management does not expect a material change to the condensed consolidated statements of operations and comprehensive loss or cash flows.

In June 2018, the FASB issued ASU No. 2018-07, *Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*. ASU 2018-07 is intended to reduce the cost and complexity and to improve financial reporting for nonemployee share-based payments. ASU 2018-07 expands the scope of Topic 718, Compensation-Stock Compensation (which currently only includes share-based payments to employees) to include share-based payments issued to nonemployees for goods or services. Consequently, the accounting for share-based payments to nonemployees and employees will be substantially aligned. ASU 2018-07 supersedes Subtopic 505-50, Equity-Based Payments to Non-Employees. ASU 2018-07 is effective for the Company for fiscal years beginning after December 15, 2018, including interim periods within that fiscal year and early adoption is permitted. The Company is currently assessing the impact of this standard on its consolidated financial statements.

Recently Adopted Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014–09, *Revenue from Contracts with Customers (Topic 606)*, which amends the existing accounting standards for revenue recognition. The FASB issued further updates to this guidance through ASU 2016-12 *Narrow-Scope Improvements and Practical Expedients,* ASU 2016-10 *Identifying Performance Obligations and Licensing* and ASU 2016-08 *Principal Versus Agent Considerations (Reporting Revenue Gross Versus Net)*. The new standard is based on principles that govern the recognition of revenue at an amount to which an entity expects to be entitled when products are transferred to customers. This standard was adopted on January 1, 2018 using a full retrospective application. There was no impact to the consolidated financial statements upon adoption of ASU 2014-09 as the Company had not recognized any revenue through December 31, 2017.

In November 2016, the FASB issued ASU No. 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash.* The purpose of ASU 2016-18 is to clarify the guidance for and presentation of restricted cash in the statement of cash flows. The amendment requires beginning-of-period and end-of-period total amounts shown on the statement of cash flows to include cash and cash equivalents as well as restricted cash and restricted cash equivalents. This standard was adopted on January 1, 2018. Accordingly, the condensed consolidated statements of cash flows and Note 3 " Cash and Marketable Securities" have been updated to reconcile cash, cash equivalents and restricted cash for all periods presented.

In May 2017, the FASB issued ASU No. 2017-09, *Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting*, which clarifies when to account for a change to the terms or conditions of a share-based payment award as a modification. Under the new guidance, modification accounting is required only if the fair value, the vesting conditions, or the classification of the award (as equity or liability) changes as a result of the change in terms or conditions. This standard was adopted as of January 1, 2018 and will be applied prospectively to any award modified after the adoption date.

2. Fair Value Measurements

Assets and liabilities measured at fair value at each balance sheet date are as follows (in thousands):

	June 30, 2018			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents:				
Money market funds	$ 16,547	$ —	$ —	$ 16,547
Short-term marketable securities:				
U.S. government treasuries	172,809	—	—	172,809
U.S. government agency securities	—	110,958	—	110,958
Corporate debt securities	—	45,052	—	45,052
Commercial paper	—	10,684	—	10,684
Long-term marketable securities:				
U.S. government treasuries	89,825	—	—	89,825
U.S. government agency securities	—	26,617	—	26,617
Corporate debt securities	—	62,261	—	62,261
Total	$ 279,181	$ 255,572	$ —	$ 534,753
Liabilities:				
Foreign currency derivative contracts	$ —	$ 32	$ —	$ 32
Total	$ —	$ 32	$ —	$ 32

	December 31, 2017			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents:				
Money market funds	$ 212,868	$ —	$ —	$ 212,868
Short-term marketable securities:				
U.S. government treasuries	42,587	—	—	42,587
U.S. government agency securities	—	106,139	—	106,139
Corporate debt securities	—	39,125	—	39,125
Long-term marketable securities:				
U.S. government treasuries	39,848	—	—	39,848
U.S. government agency securities	—	19,911	—	19,911
Corporate debt securities	—	991	—	991
Total	$ 295,303	$ 166,166	$ —	$ 461,469

The carrying amounts of accounts payable and accrued liabilities approximate their fair values due to their short-term maturities.

The Company's Level 2 securities are valued using third-party pricing sources. The pricing services utilize industry standard valuation models, including both income and market-based approaches, for which all significant inputs are observable, either directly or indirectly.

There were no transfers of assets or liabilities between the fair value measurement levels during the three and six months ended June 30, 2018 or 2017.

3. Cash and Marketable Securities

Cash, cash equivalents and restricted cash

A reconciliation of cash, cash equivalents, and restricted cash reported within the condensed consolidated balance sheets to the amount reported within the condensed consolidated statements of cash flows is shown in the table below (in thousands):

	June 30, 2018	December 31, 2017	June 30, 2017
Cash and cash equivalents	$ 33,088	$ 218,375	$ 41,307
Restricted cash included within prepaid expenses and other current assets	—	84	84
Restricted cash included within other non-current assets	1,500	451	451
Total cash, cash equivalents, and restricted cash	$ 34,588	$ 218,910	$ 41,842

Marketable Securities

All marketable securities were considered available-for-sale at June 30, 2018 and December 31, 2017. The amortized cost, gross unrealized holding gains or losses, and fair value of the Company's marketable securities by major security type at each balance sheet date are summarized in the tables below (in thousands):

	June 30, 2018			
	Amortized Cost	Unrealized Holding Gains	Unrealized Holding Losses	Aggregate Fair Value
Short-term marketable securities:				
U.S. government treasuries	$ 173,095	$ —	$ (286)	$ 172,809
U.S. government agency securities	111,188	—	(230)	110,958
Corporate debt securities	45,214	—	(162)	45,052
Commercial paper	10,684	—	—	10,684
Total short-term marketable securities	340,181	—	(678)	339,503
Long-term marketable securities:				
U.S. government treasuries	90,145	—	(320)	89,825
U.S. government agency securities	26,781	—	(164)	26,617
Corporate debt securities	62,592	—	(331)	62,261
Total long-term marketable securities	179,518	—	(815)	178,703
Total	$ 519,699	$ —	$ (1,493)	$ 518,206

	December 31, 2017			
	Amortized Cost	Unrealized Holding Gains	Unrealized Holding Losses	Aggregate Fair Value
Short-term marketable securities:				
U.S. government treasuries	$ 42,614	$ —	$ (27)	$ 42,587
U.S. government agency securities	106,368	—	(229)	106,139
Corporate debt securities	39,197	—	(72)	39,125
Total short-term marketable securities	188,179	—	(328)	187,851
Long-term marketable securities:				
U.S. government treasuries	39,868	—	(20)	39,848
U.S. government agency securities	19,931	—	(20)	19,911
Corporate debt securities	991	—	—	991
Total long-term marketable securities	60,790	—	(40)	60,750
Total	$ 248,969	$ —	$ (368)	$ 248,601

As of June 30, 2018 and December 31, 2017, certain of the Company's marketable securities were in an unrealized loss position. The Company determined that it had the ability and intent to hold all marketable securities that have been in a continuous loss position until maturity or recovery, thus there has been no recognition of any other-than-temporary impairment for the three and six months ended June 30, 2018 and 2017. All marketable securities with unrealized losses as of each balance sheet date have been in a loss position for less than twelve months or the loss is not material.

All of the Company's marketable securities have an effective maturity of less than two years.

4. Derivative Financial Instruments

Foreign Currency Exchange Rate Exposure

The Company uses forward foreign currency exchange contracts to hedge certain operational exposures resulting from potential changes in foreign currency exchange rates. Such exposures result from portions of the Company's forecasted cash flows being denominated in currencies other than the U.S. dollar, primarily the Euro and British Pound. The derivative instruments the Company uses to hedge this exposure are not designated as cash flow hedges, and as a result, changes in their fair value are recorded in Interest and other income, net, on the Company's condensed consolidated statements of operations and comprehensive loss.

The fair values of forward foreign currency exchange contracts are estimated using current exchange rates and interest rates and take into consideration the current creditworthiness of the counterparties. Information regarding the specific instruments used by the Company to hedge its exposure to foreign currency exchange rate fluctuations is provided below. The Company did not have foreign currency exchange contracts prior to June 2018.

The following table summarizes the Company's forward foreign currency exchange contracts outstanding as of June 30, 2018 (notional amounts in thousands):

Foreign Exchange Contracts	Number of Contracts	Aggregate Notional Amount in Foreign Currency	Maturity
Euros	10	2,123	Jul. 2018 - May 2019
British Pounds	8	1,113	Nov. 2018 - Jun. 2019
Swiss Francs	8	813	Aug. 2018 - Apr. 2019
Total	26		

The maximum length of time over which the Company is hedging its exposure to changes in exchange rates is June 2019.

The derivative liability balance of $31,952 is recorded in Other current liabilities on the condensed consolidated balance sheet as of June 30, 2018, and the net loss associated with the Company's derivative instruments of $31,952 is recognized in Interest and other income, net on the condensed consolidated statement of operations and comprehensive loss for the three and six months ended June 30, 2018.

5. Acquisition

In August 2016, the Company entered into a License and Collaboration Agreement (“F-star Collaboration Agreement”) with F-star Gamma Limited (“F-star Gamma”), F-star Biotechnologische Forschungs-Und Entwicklungsges M.B.H ("F-star GmbH") and F-star Biotechnology Limited ("F-Star Ltd") (collectively, “F-star”) to leverage F-star’s modular antibody technology and the Company’s expertise in the development of therapies for neurodegenerative diseases. In connection with the entry into the F-star Collaboration Agreement, the Company also purchased an option for an upfront option fee of $0.5 million (the “buy-out-option”), to acquire all of the outstanding shares of F-star Gamma pursuant to a pre-negotiated buy-out option agreement (the “Option Agreement”).

On May 30, 2018, the Company exercised such buy-out option and entered into a Share Purchase Agreement (the “Purchase Agreement”) with the shareholders of F-star Gamma and Shareholder Representative Services LLC, pursuant to which the Company acquired all of the outstanding shares of F-star Gamma (the “Acquisition”).

As a result of the Acquisition, F-star Gamma has become a wholly-owned subsidiary of the Company and the Company has changed the entity’s name to Denali BBB Holding Limited. In addition, the Company became a direct licensee of certain intellectual property of F-star Ltd (by way of the Company’s assumption of F-star Gamma’s license agreement with F-star Ltd, dated August 24, 2016, (the “F-star Gamma License”)). The Company has made initial exercise payments under the Purchase Agreement and the F-star Gamma License in the aggregate, of $18.0 million, less the estimated net liabilities of F-star Gamma, which is approximately $0.2 million. In addition, the Company is required to make future contingent payments, to F-star Ltd and the former shareholders of F-star Gamma, up to a maximum amount of $447.0 million in the aggregate upon the achievement of certain defined preclinical, clinical, regulatory and commercial milestones. The amount of the contingent payments varies based on whether F-star delivers an Fcab (constant Fc-domains with antigen-binding activity) that meets pre-defined criteria and whether the Fcab has been identified solely by the Company or solely by F-star or jointly by the Company and F-star.

Under the terms of the original F-star Collaboration Agreement, the Company could nominate up to three Fcab targets (“Accepted Fcab Targets”) within the first three years of the date of the F-star Collaboration Agreement. Upon entering into the F-star Collaboration Agreement, the Company had selected transferrin receptor (“TfR”) as the first Accepted Fcab Target and paid F-star Gamma an upfront fee of $5.5 million, which included selection of the first Accepted Fcab Target. In May 2018, the Company exercised its right to nominate two additional Fcab Targets and identified a second Accepted fcab Target. The Company is obligated to make a one-time payment for the two additional Accepted Fcab Targets of, in the aggregate, $6.0 million and has extended the time period for its selection of the third Accepted Fcab Target until approximately the fourth anniversary of the date of the original F-Star Collaboration Agreement.

The Company is also responsible for certain research costs incurred by F-star Ltd in conducting activities under each agreed development plan, for up to 24 months. These research costs for the agreed TfR development plan will be up to $2.1 million.

The Company concluded that the assets acquired and liabilities assumed upon the exercise of the Option Agreement did not meet the accounting definition of a business, and as such, the acquisition was accounted for as an asset purchase. The Company recorded the upfront purchase price less estimated net liabilities acquired of $17.8 million in research and development expense in the accompanying condensed consolidated statement of operations and comprehensive loss in the three and six months ended June 30, 2018 since it represented consideration for in-process research and development with no future alternative use. The upfront option fee of $0.5 million previously included within other non-current assets was also included in research and development expense during the three and six months ended June 30, 2018.

As this transaction was accounted for as an asset purchase rather than a business combination, no amounts were recognized on the acquisition date relating to the contingent consideration. Contingent consideration will be recognized in research and development expense as incurred.

The Company recognized $0.2 million and $0.5 million of research and development expense related to the funding of F-star Gamma research costs during the three and six months ended June 30, 2018, respectively, and $0.2 million and $0.5 million during the three and six months ended June 30, 2017, respectively.

6. License and Collaboration Agreements

Takeda

On January 3, 2018, the Company entered into a Collaboration and Option Agreement ("Takeda Collaboration Agreement") with Takeda Pharmaceutical Company Limited ("Takeda"), pursuant to which the Company granted Takeda an option in respect of three programs to develop and commercialize, jointly with the Company, certain biologic products that are enabled by Denali's BBB delivery technology and intended for the treatment of neurodegenerative disorders. The three programs are Denali's ATV:BACE1/Tau and ATV: TREM2 programs, as well as a third identified discovery stage program. The Takeda Collaboration Agreement became effective on February 12, 2018 when the requirements of the Hart-Scott-Rodino Antitrust Improvements Act of 1976 were satisfied.

Under the Takeda Collaboration Agreement and unless otherwise agreed jointly between both parties, Denali will be responsible, at its cost, for conducting activities relating to pre-IND development of biologic products directed to the three identified targets and enabled by its BBB delivery technology targeting transferrin receptor during the applicable research period. The period through which the option can be exercised continues for each target until the first biologic product directed to the relevant target is IND-ready or about five years after selection of the target, whichever is earlier.

The Takeda Collaboration Agreement provided that Takeda pay a $40.0 million upfront payment, and up to an aggregate of $25.0 million with respect to each program directed to a target and based upon the achievement of certain preclinical milestone events, up to $75.0 million in total. The upfront payment of $40.0 million was received in February 2018, as well as the first preclinical milestone payment of $5.0 million related to one of the programs.

If Takeda exercises its option with respect to a particular target, then Takeda will have the right to develop and commercialize, jointly with the Company, a specified number of biologic products enabled by its BBB delivery technology that were developed during the research period and which are directed to the relevant target, and the Company will grant to Takeda a co-exclusive license under the intellectual property the Company controls related to those biologic products.

Takeda is obligated to pay Denali a $5.0 million option fee for each target for which Takeda exercises its option, up to $15.0 million in total.

In addition, Takeda may be obligated to pay Denali up to an aggregate of $707.5 million upon achievement of certain clinical and regulatory milestone events if Takeda exercises its option for all three collaboration programs. Takeda may also be obligated to pay Denali up to $75.0 million per biologic product upon achievement of a certain sales-based milestone, or an aggregate of $225.0 million if one biologic product from each program achieves the milestone.

If Takeda exercises its option for a particular target, Denali and Takeda will share equally the development and commercialization costs, and, if applicable, the profits, for each collaboration program. However, for each collaboration program, the Company may elect not to continue sharing development and commercialization costs, or Takeda may elect to terminate Denali's cost-profit sharing rights and obligations if, following notice from Takeda and a cure period, the Company fails to satisfy its cost sharing obligations with respect to the relevant collaboration program. After such an election by the Company or termination by Takeda becomes effective, Denali will no longer be obligated to share in the development and commercialization costs for the relevant collaboration program, and will not share in any profits from that collaboration program. Instead the Company will be entitled to receive tiered royalties. The royalty rates will be in the low- to mid-teen percentages on net sales, or low- to high-teen percentages on net sales if certain co-funding thresholds have been met at the time of the Company's election to opt out of co-development or Takeda’s termination of Denali's cost-profit sharing rights and obligations, and, in each case, these royalty rates will be subject to certain reductions specified in the Takeda Collaboration Agreement. Takeda will pay these royalties for each biologic product included in the relevant collaboration program, on a country-by-country basis, until the latest of (i) the expiration of certain patents covering the relevant biologic product, (ii) the expiration of all regulatory exclusivity for that biologic product, and (iii) an agreed period of time after the first commercial sale of that biologic product in the applicable country, unless biosimilar competition in excess of a significant level specified in the Takeda Collaboration Agreement occurs earlier, in which case Takeda’s royalty obligations in the applicable country would terminate.

For each collaboration program for which costs and profits are shared with Takeda, Denali will lead the conduct of clinical activities for each indication through the first Phase 2 trial with a clinical outcomes-based efficacy endpoints, and Takeda will lead the conduct of all subsequent clinical activities for that indication. Further, Denali and Takeda will jointly commercialize biologic products included in the relevant collaboration program in the United States and China. Unless Denali has opted out of cost-sharing for two collaboration programs, it has the right to lead commercialization activities in the United States for one collaboration program and Takeda will lead commercialization activities in the United States for all collaboration programs for which Denali does not lead commercialization activities. Further, Takeda will lead commercialization activities in China and will solely conduct commercialization activities in all other countries. The Company has the right to lead all manufacturing activities for all collaboration programs for which the parties are sharing costs and profits.

Each party may terminate the Takeda Collaboration Agreement in its entirety, or with respect to a particular collaboration program, as applicable, if the other party remains in material breach of the Takeda Collaboration Agreement following a cure period to remedy the material breach. Takeda may terminate the Takeda Collaboration Agreement in its entirety or with respect to any particular collaboration program, for convenience and after giving a specified amount of prior notice, but Takeda may not do so for a certain period of time after the Effective Date of the Takeda Collaboration Agreement. Takeda may also terminate the Takeda Collaboration Agreement with respect to any collaboration program if the joint steering committee ("JSC") established under the Takeda Collaboration Agreement unanimously agrees that a material safety event has occurred with respect to the applicable collaboration program. Denali may terminate the Takeda Collaboration Agreement with respect to a particular collaboration program if Takeda fails to conduct material development and commercial activities for a specified period of time with respect to a collaboration program, unless Takeda cures such failure within a certain period of time. Denali and Takeda may each terminate the Takeda Collaboration Agreement in its entirety if the other party is declared insolvent or in similar financial distress or if, subject to a specified cure period, the other party challenges any patents licensed to it under the Takeda Collaboration Agreement.

Pursuant to the terms of the Takeda Collaboration Agreement, the Company entered into a common stock purchase agreement (the "Stock Purchase Agreement") with Takeda on January 3, 2018, pursuant to which Takeda purchased 4,214,559 shares of Denali's common stock (the "Shares") for an aggregate purchase price of $110.0 million. The sale of the Shares closed on February 23, 2018. The fair market value of the common stock sold to Takeda was $94.4 million, based on the closing stock price of $22.40 on the date of issuance, resulting in a $15.6 million premium paid to the Company above the fair value of the Company's common stock which was credited to contract liability in our condensed consolidated balance sheet.

The Company believes that the Takeda Collaboration Agreement is a collaboration arrangement as defined in ASC 808, *Collaborative Agreements*. Further, during the research period, the Company believes that the arrangement is a contract with a customer as defined in ASC 606, *Revenue From Contracts With Customers.* The Takeda Collaboration Agreement and the Stock Purchase Agreement are being accounted for as one arrangement because they were entered into at the same time with interrelated financial terms.

The Company identified performance obligations during the research period consisting of the license, the development options, and JSC participation together with the research services for each collaboration program. The license rights, JSC involvement, option and research services are considered to be a single performance obligation for each program since the research services are highly interrelated with the option and JSC involvement and will significantly modify the license. The performance obligations under each of the three programs are separate since the activities and risks under the programs are distinct.

The Company has determined that all other goods or services which are contingent upon Takeda exercising its option for each program are not considered performance obligations at the inception of the arrangement.

The transaction price at inception included fixed consideration consisting of the upfront fee of $40.0 million, the $15.6 million premium on the sale of common stock, and the first preclinical milestone payment of $5.0 million. It also included variable consideration of $26.0 million relating to future milestones that are not constrained. The amount of variable consideration was estimated using the most likely amount method. The remaining $44.0 million of preclinical milestones were considered constrained at the inception of the arrangement since the Company could not conclude it is probable that a significant reversal in the amount recognized will not occur. Additionally, cost and profit sharing income, and the development and commercial milestones as outlined above, have not been considered given Takeda has not exercised its options for the development and commercial phases for each program. There was no change in the transaction price from inception through June 30, 2018. This will be reassessed at each reporting period.

The transaction price has been ascribed in its entirety to the three performance obligations identified in the research term of the Takeda Collaboration Agreement.

Revenue is recognized when, or as, the Company satisfies its performance obligations by transferring the promised services to Takeda. Revenue will be recognized over time using the input method, based on costs incurred to perform the research services, since the level of costs incurred over time is thought to best reflect the transfer of services to Takeda.

A contract liability of $58.3 million is recorded on the balance sheet at June 30, 2018, which relates to the three performance obligations identified, with such amounts to be recognized over the period of the pre-IND research services, which is expected to be several years.

Revenue recognized relating to future milestone payments of approximately $0.8 million, for which the Company concluded that it is probable that a significant reversal in the amount recognized will not occur, is presented net of contract liability on the balance sheet.

Significant changes in the net contract liability balance during the period are as follows (in thousands):

	Contract liability
Balance at January 1, 2018	$ —
Increases due to cash received, excluding amounts recognized as revenue during the period	59,149
Decreases due to revenue recognized in the period for which cash has not been received	(844)
Balance at June 30, 2018	$ 58,305

There are no receivables or net contract assets as of June 30, 2018 associated with this arrangement.

In assessing this arrangement, management was required to exercise considerable judgment in estimating revenue to be recognized. Management applied judgment in determining the separate performance obligations in the research period, estimating variable consideration, and estimating total future costs when using the input method.

Genentech

In June 2016, the Company entered into an Exclusive License Agreement with Genentech, Inc. (“Genentech”). The agreement gives the Company access to Genentech’s LRRK2 small molecule program for Parkinson’s disease. Under the agreement, Genentech granted the Company (i) an exclusive, worldwide, sublicenseable license under Genentech’s rights to certain patents and patent applications directed to small molecule compounds which bind to and inhibit LRRK2 and (ii) a non-exclusive, worldwide, sublicenseable license to certain related know-how, in each case, to develop and commercialize certain compounds and licensed products incorporating any such compound. The Company is obligated to use commercially reasonable efforts during the first three years of the agreement to research, develop and commercialize at least one licensed product.

As consideration, the Company paid an upfront fee of $8.5 million and a technology transfer fee of $1.5 million, both of which were recognized as research and development expense for the year ended December 31, 2016.

The Company may owe Genentech milestone payments upon the achievement of certain development, regulatory, and commercial milestones, up to a maximum of $315.0 million in the aggregate, as well as royalties on net sales of licensed products ranging from low to high single-digit percentages, with the exact royalty rate dependent on various factors, including (i) whether the compound incorporated in the relevant licensed product is a Genentech-provided compound or a compound acquired or developed by the Company, (ii) the date a compound was first discovered, derived or optimized by the Company, (iii) the existence of patent rights covering the relevant licensed product in the relevant country, (iv) the existence of orphan drug exclusivity covering a licensed product that is a Genentech-provided compound and (v) the level of annual net sales of the relevant licensed product. The Company also has the right to credit a certain amount of third-party royalty and milestone payments against royalty and milestone payments owed to Genentech, up to a maximum reduction of fifty percent. The Company’s royalty payment obligations will expire on a country-by-country and licensed product-by-licensed product basis upon the later of (a) ten years after the first commercial sale of such licensed product in such country and (b) the expiration of the last valid claim of a licensed patent covering such licensed product in such country.

Genentech may terminate the agreement if the Company challenges any of the patent rights licensed to the Company by Genentech, or if the Company materially breaches the agreement, subject to specified notice and cure provisions, or enters into bankruptcy or insolvency proceedings. If Genentech terminates the agreement for the Company's material breach, bankruptcy or insolvency after the Company has made a milestone payment to Genentech, then the Company is obligated to grant to Genentech an exclusive right of first negotiation with respect to certain of the Company's patents, know-how and regulatory filings directed to Genentech-provided compounds. The Company does not have the right to terminate the agreement without cause, but may terminate the agreement for Genentech's material breach, subject to specified notice and cure provisions.

Unless earlier terminated, the agreement with Genentech will continue in effect until all of the Company's royalty and milestone payment obligations to Genentech expire. Following expiration of the agreement, the Company will retain the licenses under the intellectual property Genentech licensed to the Company on a non-exclusive, royalty-free basis.

The first clinical milestone of $2.5 million became due in June 2017 upon first patient dosing in the Phase 1 clinical trial for DNL201. The full amount was recorded as research and development expense in the three and six months ended June 30, 2017.

7. Commitments and Contingencies

Lease Obligations

In September 2015, the Company entered into a non-cancelable operating lease for its corporate headquarters comprising 38,109 of rentable square feet in a building in South San Francisco (the "Headquarters Lease"). The Headquarters Lease commenced on August 1, 2016 with a lease term of eight years. The Headquarters Lease provides for monthly base rent amounts escalating over the term of the lease. In addition, the Headquarters Lease provided a tenant improvement allowance ("TIA") of up to $7.4 million, of which $1.9 million was to be repaid to the landlord in the form of additional monthly rent with interest applied. This additional monthly rent commenced in November 2016 when the entire TIA was utilized, and resulted in an increase of base rent of $0.4 million per year over the eight-year lease term.

On May 2, 2018, the Company entered into an amendment to the Headquarters Lease (the "Headquarters Lease Amendment") to relocate and expand its headquarters to 148,020 rentable square feet in a to-be-constructed building located in South San Francisco, California (the "New Premises"). The Headquarters Lease Amendment has a contractual term of ten years from the legal commencement date, which is the later of February 1, 2019 or the date that the premises are ready for occupancy. The Company has an option to extend the lease term for a period of ten years by giving the landlord written notice of the election to exercise the option at least nine months, but not more than twelve months, prior to the expiration of the Headquarters Lease Amendment lease term.

Under the terms of the Headquarters Lease, the Company was required to pay a security deposit of $0.5 million, which was increased to $1.5 million under the Headquarters Lease Amendment. This is recorded as other non-current assets in the accompanying condensed consolidated balance sheets.

The Headquarters Lease Amendment provides for monthly base rent amounts escalating over the term of the lease. In addition, the Headquarters Lease Amendment provides a TIA of up to $25.9 million, of which $4.4 million, if utilized, would be repaid to the landlord in the form of additional monthly rent with interest applied. The Company will also be required to pay its share of operating expenses for the New Premises.

The total $7.4 million TIA under the Headquarters Lease was recorded as leasehold improvements and deferred rent liability on the condensed consolidated balance sheet under the Headquarters Lease. The Company is amortizing the deferred rent liability as a reduction of rent expense and the leasehold improvement through an increase of depreciation expense of leasehold improvements ratably over the remaining period of expected use.

The Company recognizes rent expense on a straight-line basis over the non-cancelable lease term and records the difference between cash rent payments and the recognition of rent expense as a deferred rent liability. Where leases contain escalation clauses, rent abatements, and/or concessions such as rent holidays and landlord or tenant incentives or allowances, the Company applies them in the determination of straight-line rent expense over the lease term. The Company records tenant improvement allowances as deferred rent and associated expenditures as leasehold improvements that are being amortized over the shorter of their estimated useful life or the term of the lease. The Company does not assume renewals in its determination of the lease term unless the renewals are deemed by management to be reasonably assured at lease inception.

As of June 30, 2018, the future minimum lease payments under the Headquarters Lease and subsequently the Headquarters Lease Amendment are as follows (in thousands):

Year Ended December 31:		
2018 (six months)	$	1,309
2019		4,941
2020		9,097
2021		9,716
2022		10,056
2023 and later		71,289
	$	106,408

Rent expense excluding amortization of leasehold improvements was $0.6 million and $1.3 million for the three and six months ended June 30, 2018, and $0.6 million and $1.2 million for the three and six months ended June 30, 2017, respectively.

Indemnification

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

Commitments

Effective September 2017, the Company entered into a Development and Manufacturing Services Agreement as amended ("DMSA") with Lonza Sales AG ("Lonza") for the development and manufacture of biologic products. Under the DMSA, the Company will execute purchase orders based on project plans authorizing Lonza to provide development and manufacturing services with respect to certain of the Company's antibody and enzyme products, and will pay for the services provided and batches delivered in accordance with the DMSA and project plan. Unless earlier terminated, the Lonza agreement will expire on September 6, 2022. As of June 30, 2018, the Company had purchase orders for biological product development and manufacturing costs totaling $0.7 million and $11.4 million, for the First and Second DMSA Amendments, respectively. The activities under both the First Amendment and the Second Amendment commenced in January 2018 and are expected to be completed in May 2019 and April 2024, respectively. During the three and six months ended June 30, 2018, the Company incurred costs of $1.1 million and $1.2 million, and made payments of $0.6 million and $0.7 million, respectively, for the development and manufacturing services rendered under the agreement. As of June 30, 2018, the Company had total non-refundable purchase commitments of $6.3 million under the DMSA.

8. Stock-Based Awards

2017 Equity Incentive Plan

In December 2017, the Company adopted the 2017 Equity Incentive Plan (the "2017 Plan"), which initially reserved 6,379,238 shares for the issuance of stock options, restricted stock and other stock awards, to employees, non-employee directors, and consultants under terms and provisions established by the Board of Directors and approved by the stockholders. Awards granted under the 2017 Plan expire no later than ten years from the date of grant. For stock options, the option price shall not be less than 100% of the estimated fair value on the day of grant. Options granted typically vest over a four-year period but may be granted with different vesting terms.

2015 Stock Incentive Plan

In May 2015, the Company adopted the 2015 Stock Incentive Plan (the "2015 Plan"), which as amended, reserved 8,325,000 shares for the issuance of stock options, restricted stock and other stock awards, to employees, non-employee directors, and consultants under terms and provisions established by the Board of Directors and approved by the stockholders. Awards granted under the 2015 Plan expire no later than ten years from the date of grant. For stock options, the option price shall not be less than 100% of the estimated fair value on the day of grant. For all stock options granted between August 2015 and February 2016 with an exercise price of $0.68, a deemed fair value of $1.20 per share was used in calculating stock-based compensation expense, which was determined using management hindsight. Options granted typically vest over a four-year period but may be granted with different vesting terms.

Upon adoption of the 2017 Plan, no new awards or grants are permitted under the 2015 Plan, and the 169,238 shares that were then unissued and available for future award under the 2015 Plan became available under the 2017 Plan. The 2015 Plan will continue to govern restricted stock awards and option awards previously granted thereunder.

As of June 30, 2018, there were 3,237,032 shares available for the Company to grant under the 2017 Plan.

Stock Option Activity

The following table summarizes option award activity under the 2017 Plan and the 2015 Plan:

	Number of Options	Weighted-Average Exercise Price	Weighted-Average remaining contractual life (years)	Aggregate Intrinsic Value (in thousands)
Balance at December 31, 2017	6,689,479	$ 4.08	8.37	$ 77,317
Options granted	2,964,234	21.68		
Options exercised	(291,557)	2.17		
Options forfeited	(188,768)	9.56		
Balance at June 30, 2018	9,173,388	$ 9.72	8.52	$ 50,761
Options vested and expected to vest at June 30, 2018	7,428,656	$ 11.84	8.84	$ 25,340
Options exercisable at June 30, 2018	1,559,981	$ 3.58	8.05	$ 18,207

Aggregate intrinsic value represents the difference between the Company's estimated fair value of its common stock and the exercise price of outstanding options. The total intrinsic value of options exercised was $3.5 million and $4.7 million for the three and six months ended June 30, 2018, and $0.5 million and $2.3 million for the three and six months ended June 30, 2017, respectively. During the three and six months ended June 30, 2018, the weighted-average grant-date fair value of the vested options was $2.83 and $2.87 per share, respectively. During the three and six months ended June 30, 2017, the weighted-average grant-date fair value of the vested options was $1.29 and $1.16 per share, respectively. The weighted-average grant date fair value of all options granted during the three and six months ended June 30, 2018 was $13.37 and $15.90 per share, respectively. The weighted-average grant date fair value of all options granted during the three and six months ended June 30, 2017 was $4.84 and $4.13 per share, respectively.

Stock Options Granted to Employees with Service-Based Vesting

The estimated fair value of stock options granted to employees were calculated using the Black-Scholes option-pricing model using the following assumptions:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Expected term (in years)	5.50 - 6.08	6.08	5.50 - 6.08	6.08
Volatility	80.0% - 85.6%	88.1% - 89.8%	80.0% - 87.4%	89.8% - 91.3%
Risk-free interest rate	2.7% - 2.9%	1.9%	2.6% - 2.9%	1.9% - 2.3%
Dividend yield	—	—	—	—

Expected Term: The expected term represents the period that the options granted are expected to be outstanding and is determined using the simplified method (based on the mid-point between the vesting date and the end of the contractual term).

Expected Volatility: The Company uses an average historical stock price volatility of comparable public companies within the biotechnology and pharmaceutical industry that were deemed to be representative of future stock price trends as the Company does not have sufficient trading history for its common stock. The Company will continue to apply this process until a sufficient amount of historical information regarding the volatility of its own stock price becomes available.

Risk-Free Interest Rate: The Company based the risk-free interest rate over the expected term of the options based on the constant maturity rate of U.S. Treasury securities with similar maturities as of the date of the grant.

Expected Dividend: The Company has not paid and does not anticipate paying any dividends in the near future. Therefore, the expected dividend yield was zero.

Early Exercise of Stock Options

The Company permits early exercise of certain stock options prior to vesting by certain directors and officers. Any shares issued pursuant to unvested options are restricted and subject to repurchase by the Company until the conditions for vesting are met. The amounts paid for shares purchased under an early exercise of stock options and subject to repurchase by the Company are reported in stockholders' equity once those shares vest. Upon termination of employment of an option holder, the Company has the right to repurchase, at the original purchase price, any unvested restricted shares.

A total of $31,875 and $0.3 million was reclassified from other non-current liabilities to stockholders' equity during the three and six months ended June 30, 2018, respectively, related to vesting of early exercised options. A total of $31,874 and $0.2 million was reclassified from other non-current liabilities to stockholders' equity during the three and six months ended June 30, 2017, respectively, related to vesting of early exercised options. Unvested early exercised options of $0.3 million and $0.5 million remained in other non-current liabilities as of June 30, 2018 and December 31, 2017, respectively.

Performance and Market Contingent Stock Options Granted to Employees

In August and November 2015, the Board of Directors granted performance- and market- contingent options to purchase 1,619,738 shares and 125,000 shares of the Company's common stock, respectively, to members of the senior management team. These awards have an exercise price of $0.68 per share.

These awards have two separate market triggers for vesting based upon either (i) the successful achievement of stepped target closing prices on a national securities exchange for 90 consecutive trading days later than 180 days after the Company's initial public offering for its common stock, or (ii) stepped target prices for a change in control transaction. By definition, the market condition in these awards can only be achieved after the performance condition of a liquidity event has been achieved. As such, the requisite service period is based on the estimated period over which the market condition can be achieved. When a performance goal is deemed to be probable of achievement, time-based vesting and recognition of stock-based compensation expense commences. In the event any the milestones are not achieved by the specified timelines, such award will terminate and no longer be exercisable with respect to that portion of the shares. The maximum potential expense associated with the performance- and market- contingent awards is $6.2 million ($5.8 million and $0.4 million of general and administrative and research and development expense, respectively) if all of the performance and market conditions are achieved as stated in the option agreement.

The Company uses a lattice model with a Monte Carlo simulation to value stock options with performance and market conditions. This valuation methodology utilizes the estimated fair value of the Company's common stock on grant date and several key assumptions, including expected volatility of the Company's stock price based on comparable public companies, risk-free rates of return and expected dividend yield.

Stock Options Granted to Non-Employees with Service-Based Vesting Valuation Assumptions

Stock-based compensation related to stock options granted to non-employees is recognized as the stock options are earned. The estimated fair value of the stock options granted is calculated at each reporting date using the Black-Scholes option-pricing model with the following assumptions:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Expected term (in years)	7.14 - 9.61	8.01 - 9.21	7.14 - 9.86	8.01 - 9.45
Volatility	89.4% - 99.7%	91.4% - 96.0%	88.9% - 103.1%	91.4% - 98.0%
Risk-free interest rate	2.8%	2.3% - 2.4%	2.7% - 2.8%	2.3% - 2.4%
Dividend yield	—	—	—	—

Restricted Stock Activity

The following table summarizes restricted stock activity:

	Shares	Weighted-Average Fair Value at Date of Grant per Share
Unvested at December 31, 2017	2,293,788	$ 0.18
Granted	—	—
Vested	(1,125,791)	0.18
Forfeited	—	—
Unvested at June 30, 2018	1,167,997	$ 0.18
Vested and expected to vest – June 30, 2018	1,167,997	$ 0.18

At June 30, 2018, there was $0.2 million of total unrecognized compensation cost related to unvested restricted stock, all which is expected to be recognized over a remaining weighted-average vesting period of 0.7 years.

Employee Stock Purchase Plan

In December 2017, the Company adopted the 2017 Employee Stock Purchase Plan (the “2017 ESPP”), which initially reserved 1,000,000 shares of the Company's common stock for employee purchases under terms and provisions established by the Board of Directors. Under the 2017 ESPP, employees may purchase common stock through payroll deductions at a price equal to 85% of the lower of the fair market value of common stock on the first trading day of each offering period or on the exercise date. The 2017 ESPP provides for consecutive, overlapping 12-month offering periods. The offering periods are scheduled to start on the first trading day on or after May 31 or November 30 of each year, except for the first offering period which commenced on December 8, 2017, the first trading day after the effective date of the Company’s registration statement. Contributions under the 2017 ESPP are limited to a maximum of 15% of an employee's eligible compensation.

The estimated fair value of stock purchase rights granted under the ESPP were calculated using the Black-Scholes option-pricing model using the following assumptions:

	Three and Six Months Ended June 30,
	2018
Expected term (in years)	0.5 -1.0
Volatility	63.2% - 63.7%
Risk-free interest rate	2.1%
Dividend yield	—

Stock-Based Compensation Expense

The Company's results of operations include expenses relating to employee and non-employee stock option and restricted stock awards, as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Research and development	$ 2,586	$ 709	$ 4,272	$ 1,222
General and administrative	2,124	350	3,363	602
Total	$ 4,710	$ 1,059	$ 7,635	$ 1,824

As of June 30, 2018 and December 31, 2017, total unamortized stock-based compensation expense related to unvested stock-based awards that are expected to vest was $56.6 million and $17.7 million, respectively. The weighted-average periods over which such stock-based compensation expense will be recognized are approximately 3.3 and 3.2 years, respectively.

The Company recorded stock-based compensation expense for options issued to non-employees of $0.1 million and $0.4 million for the three and six months ended June 30, 2018, respectively, and $0.2 million and $0.3 million for the three and six months ended June 30, 2017, respectively.

9. Net Loss and Net Loss Per Share

The following table sets forth the computation of the basic and diluted net loss per share (in thousands, except share and per share data):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Numerator:				
Net loss	$ (54,724)	$ (22,134)	$ (78,402)	$ (43,454)
Denominator:				
Weighted average common shares outstanding	92,899,524	9,670,449	91,239,274	9,346,051
Net loss per share, basic and diluted	$ (0.59)	$ (2.29)	$ (0.86)	$ (4.65)

Since the Company was in a loss position for all periods presented, basic net loss per share is the same as diluted net loss per share for all periods as the inclusion of all potential shares of common stock outstanding would have been anti-dilutive. Potentially dilutive securities that were not included in the diluted per share calculations because they would be anti-dilutive were as follows:

	Three and Six Months Ended June 30,	
	2018	2017
Series A-1 convertible preferred stock	—	46,114,423
Series A-2 convertible preferred stock	—	4,361,527
Series B-1 convertible preferred stock	—	8,124,365
Options issued and outstanding and ESPP shares issuable and outstanding	9,264,644	5,954,099
Restricted shares subject to future vesting	1,167,997	3,108,201
Early exercised common stock subject to future vesting	229,172	463,544
Shares to be issued under Incro acquisition agreement	—	81,164
Total	10,661,813	68,207,323

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read together with our financial statements and the other financial information appearing elsewhere in this Quarterly Report on Form 10-Q. These statements generally relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors which 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. The following discussion and analysis contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Our actual results and the timing of events may differ materially from those discussed in our forward-looking statements as a result of various factors, including those discussed below and those discussed in the section entitled "Risk Factors" included in this Quarterly Report on Form 10-Q.

Forward-looking statements include, but are not limited to, statements about:

- *the success, cost and timing of our development activities, preclinical studies and clinical trials, including the enrollment in such trials, and in particular the development of our blood-brain barrier ("BBB") platform technology, core programs and biomarkers;*
- *the extent to which any dosing limitations that we have been subject to, and/or may be subject to in the future, may affect the success of our product candidates;*
- *the impact of preclinical findings on our ability to achieve exposures of our product candidates that allow us to explore a robust pharmacodynamic range of these candidates in humans;*
- *the expected potential benefits and potential revenue resulting from strategic collaborations with third parties and our ability to attract collaborators with development, regulatory and commercialization expertise;*
- *the timing or likelihood of regulatory filings and approvals;*
- *our ability to obtain and maintain regulatory approval of our product candidates, and any related restrictions, limitations and/or warnings in the label of any approved product candidate;*
- *the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates and technology;*
- *the terms and conditions of licenses granted to us and our ability to license and/or acquire additional intellectual property relating to our product candidates and BBB platform technology;*
- *our ability to obtain funding for our operations, including funding necessary to develop and commercialize our current and potential future product candidates;*
- *our plans and ability to establish sales, marketing and distribution infrastructure to commercialize any product candidates for which we obtain approval;*
- *future agreements with third parties in connection with the commercialization of our product candidates;*
- *the size and growth potential of the markets for our product candidates, if approved for commercial use, and our ability to serve those markets;*
- *the rate and degree of market acceptance of our product candidates;*

- *existing regulations and regulatory developments in the United States and foreign countries;*
- *potential claims relating to our intellectual property and third-party intellectual property;*
- *our ability to contract with third-party suppliers and manufacturers and their ability to perform adequately;*
- *our potential plans and ability to develop our own manufacturing facilities;*
- *the pricing and reimbursement of our product candidates, if approved and commercialized;*
- *the success of competing products or platform technologies that are or may become available;*
- *our ability to attract and retain key managerial, scientific and medical personnel;*
- *the accuracy of our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;*
- *our ability to enhance operational, financial and information management systems;*
- *our financial performance; and*
- *our expectations regarding the period during which we qualify as an emerging growth company under the JOBS Act.*

These forward-looking statements are subject to a number of risks, uncertainties, and assumptions, including those described in "Risk Factors". In some cases, you can identify these statements by terms such as "anticipate," "believe," "could," "estimate," "expects," "intend," "may," "plan," "potential," "predict," "project," "should," "will," "would" or the negative of those terms, and similar expressions that convey uncertainty of future events or outcomes. These forward-looking statements reflect our beliefs and views with respect to future events and are based on estimates and assumptions as of the date of this Quarterly Report on Form 10-Q and are subject to risks and uncertainties. We discuss many of these risks in greater detail in the section entitled "Risk Factors" included in Part II, Item 1A and elsewhere in this report. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We qualify all of the forward-looking statements in this Quarterly Report on Form 10-Q by these cautionary statements. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in any forward-looking statements, whether as a result of new information, future events or otherwise.

Overview

Our goal is to discover and develop therapeutics to defeat degeneration.

Our strategy is guided by three overarching principles:

- **Genetic Pathway Potential**: We select our therapeutic targets and disease pathways based on genes that, when mutated, cause, or are major risk factors for, neurodegenerative diseases, which we refer to as degenogenes.
- **Engineering Brain Delivery**: We engineer our product candidates to cross the BBB and act directly in the brain.

- **Biomarker-Driven Development**: We discover, develop and utilize biomarkers to select the right patient population and demonstrate target engagement, pathway engagement and impact on disease progression of our product candidates.

Our total portfolio currently consists of thirteen programs. To prioritize the allocation of our resources, we designate certain programs as core programs and others as seed programs, and we currently have eight core programs and five seed programs. Our most advanced core programs are our leucine-rich repeat kinase 2 ("LRRK2") inhibitor program to address Parkinson's disease and our receptor interacting serine/threonine protein kinase 1 ("RIPK1") inhibitor program to address Alzheimer's disease and amyotrophic lateral sclerosis ("ALS"). The two most advanced product candidates in our LRRK2 program, DNL201 and DNL151, are potent, selective and brain-penetrant small molecule LRRK2 inhibitor product candidates for Parkinson's disease. DNL201 is currently in a Phase 1 clinical trial in healthy volunteers in the United States, and DNL151 is currently in a Phase 1 clinical trial in healthy volunteers in the Netherlands. We recently announced that DNL201 meets all key objectives in the Phase 1 Healthy Volunteer Study, including achieving targeted levels of cerebrospinal fluid (CSF) exposure, robust target engagement as measured by two blood-based biomarkers of LRRK2 activity at doses that were safe and well tolerated, and effects on biomarkers of lysosomal function. As such, DNL201 will advance into a Phase 1b clinical study in Parkinson's disease patients with and without the genetic LRRK2 mutation in 2018. The most advanced product candidate in our RIPK1 inhibitor program, DNL747, is a potent, selective and brain-penetrant small molecule RIPK1 inhibitor product candidate for ALS and Alzheimer's disease is currently in a Phase 1 clinical trial in healthy volunteers in the Netherlands.

We have also developed proprietary BBB platform technology, our transport vehicle ("TV"), which is designed to effectively transport antibodies (antibody transport vehicle ("ATV")) and enzymes (enzyme transport vehicle ("ETV")) across the BBB. This technology is designed to engage specific BBB transport receptors, which are ubiquitously expressed in brain capillaries and facilitate transport of proteins into the brain. We are currently optimizing and broadening this platform technology. We plan to have multiple product candidates that utilize our ATV or ETV platforms enter clinical development in 2019 and 2020, including molecules targeting alpha-synuclein ("aSyn"); iduronate 2-sulfatase ("IDS"); triggering receptor expressed in myeloid cells 2 ("TREM2"); and a bispecific agent targeting both beta-secretase 1 ("BACE1"); and Tau.

To complement our internal capabilities, we have entered into arrangements with biopharmaceutical companies, numerous leading academic institutions and foundations to gain access to new product candidates, enable and accelerate the development of our existing programs and deepen our scientific understanding of certain areas of biology. We rely on third-party contract manufacturers to manufacture and supply our preclinical and clinical materials to be used during the development of our product candidates. We currently do not need commercial manufacturing capacity.

Since we commenced operations in May 2015, we have devoted substantially all of our resources to discovering, acquiring and developing product candidates, building our BBB platform technology and assembling our core capabilities in neurodegenerative disease pathways.

Key operational and financing milestones in 2018 to date include:

- On January 3, 2018, we entered into the Takeda Collaboration Agreement pursuant to which we granted Takeda an option with respect to three of our programs to develop and commercialize, jointly with us, certain biologic products that are enabled by our BBB delivery technology and intended for the treatment of neurodegenerative disorders. Pursuant to this agreement, we received an upfront payment of $40.0 million in February 2018, as well as the first preclinical milestone payment of $5.0 million related to one of our programs. Further, under the associated common stock purchase agreement (the "Stock Purchase Agreement"), we received proceeds of $110.0 million for the sale of 4,214,559 shares of our common stock which were issued on February 23, 2018.

- On February 7, 2018, we submitted a CTA for DNL747, a RIPK1 inhibitor, to the Netherlands Health Authority, and we initiated a Phase 1 clinical trial of DNL747 in healthy volunteers in the Netherlands in March 2018.

- On May 21, 2018, we exercised our right to nominate two additional Fcab (constant Fc-domains with antigen-binding activity) targets under the F-star Collaboration Agreement associated with our BBB platform technology, resulting in an obligation to make a one-time payment of $6.0 million within 90 days of the exercise date.

- On May 30, 2018, we exercised our buy-out option to acquire all of the outstanding shares of F-star Gamma Limited, and subsequently changed the name of the entity to Denali BBB Holding Limited. We made initial exercise payments of, in the aggregate, $18.0 million, less the estimated net liabilities of F-star Gamma, which was approximately $0.2 million. In addition, we are required under the buy-out option agreement and the F-star Gamma License to make future contingent payments to F-star Ltd or the former shareholders of F-star Gamma, up to a maximum amount of $447.0 million in the aggregate, upon the achievement of certain defined preclinical, clinical, regulatory and commercial milestones.

- During the second quarter of 2018, one of our pending patent applications directed to the composition of matter of DNL151, a LRRK2 inhibitor, issued in the United States.

- During the second quarter of 2018 we achieved *in vivo* proof of concept for the ETV:IDS program in a mouse model of Hunter Syndrome.

- On August 1, 2018, we announced positive results from the DNL201 Phase 1 Healthy Volunteer Study. DNL201 meets all key objectives in the Phase 1 Healthy Volunteer Study, including achieving targeted levels of CSF exposure and inhibition of LRRK2 activity at doses that were safe and well tolerated, robust target engagement as measured by two blood-based biomarkers of LRRK2 activity, and effects on biomarkers of lysosomal function. As such, DNL201 will advance to Phase 1b clinical study in Parkinson's disease patients with and without the genetic LRRK2 mutation in 2018.

We do not have any products approved for sale and have not generated any product revenue since our inception. We have funded our operations primarily from the issuance and sale of convertible preferred stock, the proceeds from our IPO and cash proceeds from Takeda under the Takeda Collaboration Agreement.

We have incurred significant operating losses to date and expect to continue to incur operating losses for the foreseeable future. Our net losses were $54.7 million and $78.4 million for the three and six months ended June 30, 2018, and $22.1 million and $43.5 million for the three and six months ended June 30, 2017, respectively. As of June 30, 2018, we had an accumulated deficit of $270.1 million. We expect to continue to incur significant expenses and operating losses as we advance our LRRK2 and RIPK1 programs through clinical trials; broaden and improve our BBB platform technology; acquire, discover, validate and develop additional product candidates; obtain, maintain, protect and enforce our intellectual property portfolio; and hire additional personnel.

Components of Operating Results

Collaboration Revenue

To date, we have not generated any revenue from product sales and do not expect to generate any revenue from product sales for the foreseeable future. For the three and six months ended June 30, 2018, we recognized $1.6 million and $2.3 million, respectively, of collaboration revenue from the Takeda Collaboration Agreement.

In the future, we will continue to recognize revenue from the Takeda Collaboration Agreement and may generate revenue from product sales or other collaboration agreements, strategic alliances and licensing arrangements. We expect that our revenue will fluctuate from quarter-to-quarter and year-to-year as a result of the timing and amount of license fees, milestones, reimbursement of costs incurred and other payments and product sales, to the extent any are successfully commercialized. If we fail to complete the development of our product candidates in a timely manner or obtain regulatory approval for them, our ability to generate future revenue, and our results of operations and financial position, would be materially adversely affected.

Operating Expenses

Research and Development

Research and development activities account for a significant portion of our operating expenses. We record research and development expenses as incurred. Research and development expenses incurred by us for the discovery and development of our product candidates and BBB platform technology include:

- external research and development expenses, including:
- expenses incurred under arrangements with third parties, such as contract research organizations ("CROs"), preclinical testing organizations, contract manufacturing organizations ("CMOs"), academic and non-profit institutions and consultants;
- expenses to acquire technologies to be used in research and development that have not reached technological feasibility and have no alternative future use;
- fees related to our license and collaboration agreements;
- personnel related expenses, including salaries, benefits and non-cash stock-based compensation expense; and
- other expenses, which include direct and allocated expenses for laboratory, facilities and other costs.

A portion of our research and development expenses are direct external expenses, which we track on a program-specific basis once a program has commenced a late-stage IND-enabling studies.

Program expenses include expenses associated with our most advanced product candidates and the discovery and development of backup or next-generation molecules. We also track external expenses associated with our BBB platform technology. All external costs associated with earlier stage programs, or that benefit the entire portfolio, are tracked as a group. 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 are also unable to predict when, if ever, material net cash inflows will commence from sales or licensing of our product candidates. This is due to the numerous risks and uncertainties associated with drug development, including the uncertainty of:

- our ability to add and retain key research and development personnel;
- our ability to establish an appropriate safety profile with IND-enabling toxicology studies;

- our ability to successfully develop, obtain regulatory approval for, and then successfully commercialize, our product candidates;
- our successful enrollment in and completion of clinical trials;
- the costs associated with the development of any additional product candidates we identify in-house or acquire through collaborations;
- our ability to discover, develop and utilize biomarkers to demonstrate target engagement, pathway engagement and the impact on disease progression of our molecules;
- our ability to establish agreements with third-party manufacturers for clinical supply for our clinical trials and commercial manufacturing, if our product candidates are approved;
- the terms and timing of any collaboration, license or other arrangement, including the terms and timing of any milestone payments thereunder;
- our ability to obtain and maintain patent, trade secret and other intellectual property protection and regulatory exclusivity for our product candidates if and when approved;
- our receipt of marketing approvals from applicable regulatory authorities;
- our ability to commercialize products, if and when approved, whether alone or in collaboration with others; and
- the continued acceptable safety profiles of the product candidates following approval.

A change in any of these variables with respect to the development of any of our product candidates would significantly change the costs, timing and viability associated with the development of that product candidate. We expect our research and development expenses to increase at least over the next several years as we continue to implement our business strategy, advance our current programs, expand our research and development efforts, seek regulatory approvals for any product candidates that successfully complete clinical trials, access and develop additional product candidates and incur expenses associated with hiring additional personnel to support our research and development efforts. In addition, product candidates in later stages of clinical development generally incur higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials.

General and Administrative

General and administrative expenses include personnel related expenses, such as salaries, benefits, travel and non-cash stock-based compensation expense, expenses for outside professional services and allocated expenses. Outside professional services consist of legal, accounting and audit services and other consulting fees. Allocated expenses consist of rent expenses related to our office and research and development facility not otherwise included in research and development expenses.

We expect to incur additional 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 any national securities exchange on which our securities are traded, additional insurance expenses, investor relations activities and other administrative and professional services. We also expect to increase our administrative headcount as we advance our product candidates through clinical development, which will also likely require us to increase our general and administrative expenses.

Interest and Other Income, Net

Interest and other income, net, consists primarily of interest income and investment income earned on our cash, cash equivalents, and marketable securities as well as unrealized gains and losses on foreign currency hedges.

Results of Operations

Comparison of the three and six months ended June 30, 2018 and 2017

The following tables set forth the significant components of our results of operations (in thousands):

	Three Months Ended June 30,		Change	
	2018	2017	$	%
Collaboration revenue	$ 1,648	$ —	$ 1,648	* %
Operating expenses:				
Research and development	52,134	19,004	33,130	174
General and administrative	6,896	3,564	3,332	93
Total operating expenses	59,030	22,568	36,462	162
Loss from operations	(57,382)	(22,568)	(34,814)	154
Interest and other income, net	2,658	434	2,224	512
Net loss	$ (54,724)	$ (22,134)	$ (32,590)	147 %

* Percentage is not meaningful.

	Six Months Ended June 30,		Change	
	2018	2017	$	%
Collaboration revenue	$ 2,289	$ —	$ 2,289	* %
Operating expenses:				
Research and development	72,953	37,474	35,479	95
General and administrative	12,466	6,838	5,628	82
Total operating expenses	85,419	44,312	41,107	93
Loss from operations	(83,130)	(44,312)	(38,818)	88
Interest and other income, net	4,728	858	3,870	451
Net loss	$ (78,402)	$ (43,454)	$ (34,948)	80 %

* Percentage is not meaningful.

Collaboration Revenue. Collaboration Revenue was $1.6 million and $2.3 million for the three and six months ended June 30, 2018, with no revenue recognized for the three and six months ended June 30, 2017, respectively. The increase was due to revenue recognized under our Takeda Collaboration Agreement.

Research and development expenses. Research and development expenses were $52.1 million and $73.0 million for the three and six months ended June 30, 2018 compared to $19.0 million and $37.5 million for the three and six months ended June 30, 2017, respectively.

The following table summarizes our research and development expenses by program and category (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
LRRK2 program external expenses [1]	$ 3,039	$ 5,887	$ 6,247	$ 9,749
RIPK1 program external expenses	3,094	1,280	4,947	3,755
BBB platform external expenses [2]	27,546	864	28,197	1,634
Other external research and development expenses	4,696	2,084	8,246	4,904
Personnel related expenses [3]	9,358	5,520	17,098	10,897
Other unallocated research and development expenses	4,401	3,369	8,218	6,535
Total research and development expenses	$ 52,134	$ 19,004	$ 72,953	$ 37,474

(1) The amounts for the three and six months ended June 30, 2017 include a milestone payment of $2.5 million under the license agreement with Genentech.
(2) The amounts for the three and six months ended June 30, 2018 include the upfront purchase price less estimated net liabilities acquired of $17.8 million, and transaction costs of $1.9 million in relation to our acquisition of F-star Gamma Limited, and the $6.0 million one-time payment made to F-star Ltd to nominate two additional Fcab targets under the Collaboration Agreement.
(3) Personnel related expenses include stock-based compensation expense of $2.6 million and $4.3 million for the three and six months ended June 30, 2018, respectively, and $0.7 million and $1.2 million for the three and six months ended June 30, 2017, respectively, reflecting an increase of $1.9 million and $3.1 million, respectively.

The increase in total research and development expenses of $33.1 million for the three months ended June 30, 2018 compared to the three months ended June 30, 2017 was primarily attributable to a $26.7 million increase in BBB platform external expenses, the majority of which related to expense associated with the nomination of two additional Fcab targets in the F-star Collaboration Agreement, and the acquisition of F-star Gamma Limited, and a $3.8 million increase in personnel related expenses, consisting of a $2.0 million increase in salaries and related expenses attributable to an increase in our research and development headcount, and a $1.9 million increase in stock-based compensation expense attributable to new options granted at higher valuations subsequent to the IPO and an increase in our research and development headcount. Further, there was a $2.6 million increase in other external research and development expenses, which reflects our increased investment in growing and developing our pipeline, an increase of $1.8 million in RIPK1 program external expenses primarily due to the expenses related to the Phase 1 clinical trial for DNL 747, which commenced in March 2018, and an increase in other unallocated research and development expenses of $1.0 million, which was primarily due to an increase in lab consumable expenses of $0.6 million and an increase in facilities related expenses of $0.4 million, both of which are attributable to increases in research and development headcount.

These increases were partially offset by a $2.8 million decrease in LRRK2 program external expenses, primarily due to the milestone payment of $2.5 million under the license agreement with Genentech included in the three months ended June 30, 2017.

The increase in total research and development expenses of $35.5 million for the six months ended June 30, 2018 compared to the six months ended June 30, 2017 was primarily attributable to a $26.6 million increase in BBB platform external expenses, the majority of which related to expense associated with the nomination of two additional Fcab targets in the F-star Collaboration Agreement, and the acquisition of F-star Gamma Limited, and a $6.2 million increase in personnel related expenses, consisting of a $3.2 million increase in salaries and related expenses attributable to an increase in our research and development headcount, and a $3.1 million increase in stock-based compensation expense attributable to new options granted at higher valuations subsequent to the IPO, and an increase in our research and development headcount. Further, there was a $3.3 million increase in other external research and development expenses, which reflects our increased investment in growing and developing our pipeline, an increase of $1.2 million in RIPK1 program external expenses primarily due to the expenses related to the Phase 1 clinical trial for DNL 747 which commenced in March 2018, and an increase in other unallocated research and development expenses of $1.7 million, which was primarily due to an increase in lab consumable expenses of $0.9 million and an increase in facilities related expenses of $0.7 million, both of which are attributable to increases in research and development headcount.

These increases were partially offset by a $3.5 million decrease in LRRK2 program external expenses, primarily due to the milestone payment of $2.5 million under the license agreement with Genentech included in the six months ended June 30, 2017.

General and administrative expenses. General and administrative expenses were $6.9 million for the three months ended June 30, 2018 compared to $3.6 million for the three months ended June 30, 2017, including stock-based compensation expense of $2.1 million and $0.4 million in the three months ended June 30, 2018 and 2017, respectively. The increase of $3.3 million was primarily attributable to the $1.8 million increase in stock-based compensation expense mainly due to new options granted at higher valuations subsequent to the IPO and an increase in our general and administrative headcount, a $0.2 million increase in legal expenses and other professional services to support our ongoing operations as a public company, and a $0.6 million increase in other personnel related expenses due to an increase in our general and administrative headcount.

General and administrative expenses were $12.5 million for the six months ended June 30, 2018 compared to $6.8 million for the six months ended June 30, 2017, including stock-based compensation expense of $3.4 million and $0.6 million in the six months ended June 30, 2018 and 2017, respectively. The increase of approximately $5.6 million was primarily attributable to the $2.8 million increase in stock-based compensation expense mainly due to new options granted at higher valuations subsequent to the IPO and an increase in our general and administrative headcount, a $0.8 million increase in legal expenses and other professional services to support our ongoing operations as a public company, and a $1.1 million increase in other personnel related expenses due to an increase in our general and administrative headcount.

Interest and other income, net. Interest and other income, net was $2.7 million for the three months ended June 30, 2018 compared to $0.4 million for the three months ended June 30, 2017. The increase of $2.2 million reflects that the marketable securities balances were higher in 2018 than in 2017, and increased interest rates on marketable securities in our portfolio for the three months ended June 30, 2018.

Interest and other income, net was $4.7 million for the six months ended June 30, 2018 compared to $0.9 million for the six months ended June 30, 2017. The increase of $3.9 million reflects that the marketable securities balances were higher in 2018 than in 2017, and that there were increased interest rates on marketable securities in our portfolio for the six months ended June 30, 2018.

Liquidity and Capital Resources

Sources of Liquidity

We have funded our operations primarily from the issuance and sale of convertible preferred stock, the proceeds from our IPO and cash proceeds under our Takeda Collaboration Agreement. In December 2017, we completed our IPO pursuant to which we issued 15,972,221 shares of our common stock, including 2,083,333 shares sold pursuant the underwriters' full exercise of their option to purchase additional shares, at a price of $18.00 per share. We received $264.3 million from our IPO, net of underwriting discounts and commissions, and offering expenses incurred by us.

Pursuant to the Takeda Collaboration Agreement, we received a $40.0 million upfront payment and a $5.0 million preclinical milestone in February 2018. Further, under the associated Stock Purchase Agreement we received a further $110.0 million in February 2018 in exchange for 4,214,559 shares of common stock issued.

As of June 30, 2018, we had cash, cash equivalents and marketable securities in the amount of $551.3 million.

Future Funding Requirements

To date, we have not generated any product revenue. We do not expect to generate any product revenue unless and until we obtain regulatory approval of and commercialize any of our product candidates, and we do not know when, or if, either will occur.

We expect to continue to incur substantial additional losses for the foreseeable future as we expand our research and development activities and continue the development of, and seek regulatory approvals for, our product candidates, and begin to commercialize any approved products. Further, we expect general and administrative expenses to increase as we will now incur additional costs associated with operating as a public company. We are subject to all of the risks typically related to the development of new product candidates, and we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. We anticipate that we will need substantial additional funding in connection with our continuing operations.

Until we can generate a sufficient amount of revenue from the commercialization of our product candidates or from our Takeda Collaboration Agreement, or future agreements with other third parties, if ever, we expect to finance our future cash needs through public or private equity or debt financings. Additional capital may not be available on reasonable terms, if at all. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, scale back or discontinue the development or commercialization of one or more of our product candidates. If we raise additional funds through the issuance of additional debt or equity securities, it could result in dilution to our existing stockholders, increased fixed payment obligations and the existence of securities with rights that may be senior to those of our common stock. If we incur indebtedness, we could become subject to covenants that would restrict our operations and potentially impair our competitiveness, 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. Any of the foregoing could significantly harm our business, financial condition and prospects.

Since our inception, we have incurred significant losses and negative cash flows from operations. We have an accumulated deficit of $270.1 million through June 30, 2018. We expect to incur substantial additional losses in the future as we conduct and expand our research and development activities. We believe that our existing cash, cash equivalents and marketable securities will be sufficient to enable us to fund our projected operations through at least the next 12 months. 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. Our future funding 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;
- the progress of the development efforts of third parties with whom we have entered into license and collaboration agreements;
- our ability to maintain our current research and development programs and to establish new research and development, license or collaboration arrangements;
- our ability and success in securing manufacturing relationships with third parties or, in the future, in establishing and operating a manufacturing facility;
- the costs involved in prosecuting, defending and enforcing patent claims and other intellectual property claims;
- the cost and timing of regulatory approvals;
- our efforts to enhance operational, financial and information management systems and hire additional personnel, including personnel to support development of our product candidates; and
- the costs and ongoing investments to in-license and/or acquire additional technologies.

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 sets forth a summary of the primary sources and uses of cash for each of the periods presented below (in thousands):

	Six Months Ended June 30,	
	2018	**2017**
Net cash used in operating activities	$ (8,247)	$ (36,378)
Net cash (used in) provided by investing activities	(270,746)	37,457
Net cash provided by financing activities	94,671	375
Net (decrease) increase in cash, cash equivalents and restricted cash	$ (184,322)	$ 1,454

Net Cash Used In Operating Activities

During the six months ended June 30, 2018, cash used in operating activities was $8.2 million, which consisted of a net loss of $78.4 million, adjusted by non-cash expenses of $9.2 million and cash provided by changes in our operating assets and liabilities of $62.3 million. The non-cash expenses consisted primarily of stock-based compensation expense of $7.6 million and depreciation expense of $2.7 million partially offset by net amortization of premiums and discounts on marketable securities of $1.1 million. The change in our operating assets and liabilities was primarily due to an increase of $58.3 million in a contract liability related to the Takeda Collaboration Agreement, an increase in accounts payable of $7.1 million due primarily to the liability for the one-time payment of $6.0 million to F-star Ltd in connection with the exercise of our right to nominate two additional Fcab targets under the F-star Collaboration Agreement, partially offset by a decrease of $1.3 million in deferred rent due to accelerated amortization of leasehold improvements for the existing Headquarters Lease due to the Headquarters Lease Amendment, and a decrease of $1.4 million in accrued and other current liabilities, primarily attributable to the payout of the employee bonuses during the first quarter of 2018 which were accrued in December 2017.

During the six months ended June 30, 2017, cash used in operating activities was $36.4 million, which consisted of a net loss of $43.5 million, adjusted by non-cash expenses of $4.0 million and cash provided by changes in our operating assets and liabilities of $3.1 million. The non-cash charges consisted primarily of stock-based compensation expense of $1.8 million and depreciation expense of $1.5 million. The change in our operating assets and liabilities was primarily due to an increase of $2.4 million in accrued and other current liabilities and a decrease of $1.3 million in prepaid expenses and other current assets.

Net Cash (Used In) Provided By Investing Activities

During the six months ended June 30, 2018, cash used in investing activities was $270.7 million, which consisted of $361.7 million of purchases of marketable securities and $1.1 million of capital expenditures to purchase property and equipment, partially offset by $92.0 million in proceeds from the maturity of marketable securities.

During the six months ended June 30, 2017, cash provided by investing activities was $37.5 million, which consisted of $67.1 million in proceeds from the maturity of marketable securities, partially offset by $28.2 million of purchases of marketable securities and $1.4 million of capital expenditures to purchase property and equipment.

Net Cash Provided By Financing Activities

During the six months ended June 30, 2018, cash provided by financing activities was $94.7 million, which consisted of the $94.4 million market value of the 4,214,559 shares of common stock issued to Takeda in February 2018 under the Stock Purchase Agreement, and $1.7 million of proceeds from the exercise of common stock options and issuance of ESPP shares. These amounts were partially offset by $1.4 million for payments of issuance costs related to the issuance of common and preferred stock.

During the six months ended June 30, 2017, cash provided by financing activities was $0.4 million, which represents the proceeds from the exercise of common stock options.

Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements. Prior to our acquisition of all of the outstanding shares of F-star Gamma, our F-star Collaboration Agreement represented a variable interest in a variable interest entity, or VIE, F-star Gamma. However, we did not consolidate F-star Gamma in our consolidated financial statements because we had determined that we were not considered to be its primary beneficiary.

Contractual Obligations and Commitments

Effective September 2017, we entered into a Development and Manufacturing Services Agreement, as amended (the "DMSA"), with Lonza Sales AG ("Lonza") for the development and manufacture of biologic products. Under the DMSA, we will execute purchase orders based on project plans authorizing Lonza to provide development and manufacturing services with respect to certain of our antibody and enzyme products, and will pay for the services provided and batches delivered in accordance with the DMSA and project plan. Unless earlier terminated, the Lonza agreement will expire on September 6, 2022. As of June 30, 2018, we had purchase orders for biological product development and manufacturing costs totaling $0.7 million and $11.4 million, for the First and Second DMSA Amendments, respectively. The activities under both the First Amendment and the Second Amendment commenced in January 2018 and are expected to be completed in May 2019 and April 2024, respectively. During the three and six months ended June 30, 2018, we incurred costs of $1.1 million and $1.2 million, and made payments of $0.6 million and $0.7 million, respectively, for the development and manufacturing services rendered under the agreement. As of June 30, 2018, we had total non-refundable purchase commitments of $6.3 million under the DMSA.

On May 2, 2018, we entered into an amendment to our Headquarters Lease (the "Headquarters Lease Amendment") to relocate and expand our headquarters to 148,020 rentable square feet in a to-be-

constructed building in South San Francisco, California (the "New Premises"). The Headquarters Lease Amendment has a contractual term of ten years from the legal commencement date, which is the later of February 1, 2019 or the date that the premises are ready for occupancy. We have an option to extend the lease term for a period of ten years by giving the landlord written notice of the election to exercise the option at least nine months, but not more than twelve months, prior to the expiration of the Headquarters Lease Amendment lease term.

Under the terms of the Headquarters Lease Amendment, we were required to increase the security deposit of $0.5 million to $1.5 million. The Headquarters Lease Amendment provides for monthly base rent amounts escalating over the term of the lease. In addition, the Headquarters Lease Amendment provides a tenant improvement allowance ("TIA") of up to $25.9 million, of which $4.4 million, if utilized, would be repaid to the landlord in the form of additional monthly rent with interest applied. We will also be required to pay our share of operating expenses for the New Premises.

Other than those detailed above, there have been no other material changes from the contractual obligations and commitments previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2017, as filed with the SEC on March 19, 2018.

Critical Accounting Policies and Significant Judgments and Estimates

This discussion and analysis of our financial condition and results of operations is based on our condensed consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States. The preparation of these condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements, as well as the reported revenues recognized 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.

Other than the addition of the revenue recognition policy included below, there have been no material changes to our critical accounting policies and estimates during the six months ended June 30, 2018 from those described in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in our 2017 Annual Report on Form 10-K for the year ended December 31, 2017, as filed with the SEC on March 19, 2018.

Revenue Recognition

License and Collaboration Revenues

We analyze our collaboration arrangements to assess whether they are within the scope of ASC 808, Collaborative Arrangements (“ASC 808”) to determine whether such arrangements involve joint operating activities performed by parties that are both active participants in the activities and exposed to significant risks and rewards dependent on the commercial success of such activities. This assessment is performed throughout the life of the arrangement based on changes in the responsibilities of all parties in the arrangement. For collaboration arrangements within the scope of ASC 808 that contain multiple elements, we first determine which elements of the collaboration are deemed to be within the scope of ASC 808 and those that are more reflective of a vendor-customer relationship and, therefore, within the scope of Topic 606. For elements of collaboration arrangements that are accounted for pursuant to ASC 808, an appropriate recognition method is determined and applied consistently, generally by analogy to Topic 606. The accounting treatment pursuant to Topic 606 is outlined below.

The terms of licensing and collaboration agreements entered into typically include payment of one or more of the following: non-refundable, up-front license fees; development, regulatory and commercial milestone payments; payments for manufacturing supply services; and royalties on net sales of licensed products. Each of these payments results in license, collaboration and other revenues, except for revenues from royalties on net sales of licensed products, which are classified as royalty revenues. The core principle of Topic 606 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received in exchange for those goods or services.

In determining the appropriate amount of revenue to be recognized as we fulfill our obligations under each of our agreements, we perform the following steps: (i) identify the promised goods or services in the contract; (ii) determine whether the promised goods or services are performance obligations including whether they are distinct in the context of the contract; (iii) measure the transaction price, including the constraint on variable consideration; (iv) allocate the transaction price to the performance obligations based on estimated selling prices; and (v) recognize revenue when (or as) we satisfy each performance obligation.

We record amounts received prior to satisfying the revenue recognition criteria as contract liabilities in our consolidated balance sheets. If the related performance obligation is expected to be satisfied within the next twelve months this will be classified in current liabilities. Amounts recognized as revenue prior to receipt are recorded as contract assets in our consolidated balance sheets. If we expect to have an unconditional right to receive the consideration in the next twelve months this will be classified in current assets. We present a net contract asset or liability for each contract with a customer.

At contract inception, we assess the goods or services promised in a contract with a customer and identify those distinct goods and services that represent a performance obligation. A promised good or service may not be identified as a performance obligation if it is immaterial in the context of the contract with the customer, if it is not separately identifiable from other promises in the contract (either because it is not capable of being separated or because it is not separable in the context of the contract), or if the performance obligation does not provide the customer with a material right.

We consider the terms of the contract and our customary business practices to determine the transaction price. The transaction price is the amount of consideration to which we expect to be entitled in exchange for transferring promised goods or services to a customer. The consideration promised in a contract with a customer may include fixed amounts, variable amounts, or both. Variable consideration will only be included in the transaction price when it is not considered constrained, which is when it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur.

If it is determined that multiple performance obligations exist, at the inception of the agreement we will allocate the transaction price to all identified performance obligations based on the relative standalone selling prices. We estimate the relative selling price for each deliverable using objective evidence if it is available. If objective evidence is not available, we use our best estimate of the selling price for the deliverable.

Revenue is recognized when, or as, we satisfy a performance obligation by transferring a promised good or service to a customer. An asset is transferred when, or as, the customer obtains control of that asset, which for a service is considered to be as the services are received and used. We recognize revenue over time by measuring the progress toward complete satisfaction of the relevant performance obligation using an appropriate input or output method based on the nature of the good or service promised to the customer.

After contract inception, we reassess the transaction price at every period end, and update for changes such as resolution of uncertain events. Any change in the transaction price is allocated to the performance obligations on the same basis as at contract inception.

We may be required to exercise considerable judgment in estimating revenue to be recognized. Judgment is required in identifying performance obligations, estimating the transaction price, estimating the stand-alone selling prices of identified performance obligations, which may include forecasted revenues, development timelines, reimbursement rates for personnel costs, discount rates and probabilities of technical and regulatory success, and estimating the progress towards satisfaction of performance obligations.

Recent Accounting Pronouncements

Except as described in Note 1 to the condensed consolidated financial statements under the heading “Recently Issued Accounting Pronouncements”, there have been no new accounting pronouncements or changes to accounting pronouncements during the six months ended June 30, 2018, as compared to the recent accounting pronouncements described in our 2017 Annual Report on Form 10-K for the year ended December 31, 2017, as filed with the SEC on March 19, 2018, that are of significance or potential significance to us.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risks in the ordinary course of our business, primarily related to interest rate and foreign currency sensitivities.

Interest Rate Sensitivity

We are exposed to market risk related to changes in interest rates. We had cash, cash equivalents and marketable securities of $551.3 million as of June 30, 2018, which consisted primarily of money market funds and marketable securities, largely composed of investment grade, short to intermediate term fixed income securities.

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 short-term duration, according to our board-approved investment charter. Our investments are subject to interest rate risk and could fall in value if market interest rates increase. A hypothetical 10% relative change in interest rates during any of the periods presented would not have had a material impact on our condensed consolidated financial statements.

Foreign Currency Sensitivity

The majority of our transactions occur in U.S. dollars. However, we do have certain transactions that are denominated in currencies other than the U.S. dollar, primarily British Pounds, Swiss Francs and the Euro, and we therefore are subject to foreign exchange risk. The fluctuation in the value of the U.S. dollar against other currencies affects the reported amounts of expenses, assets and liabilities associated with a limited number of preclinical and clinical activities.

To partially mitigate the impact of changes in currency exchange rates on cash flows from our foreign currency denominated operating expenses, we enter into forward foreign currency exchange contracts. Generally, the market risks of these contracts are offset by the corresponding gains and losses on the transactions being hedged.

We do not use derivative financial instruments for speculative trading purposes, nor do we hedge foreign currency exchange rate exposure in a manner that entirely offsets the effects of changes in foreign currency exchange rates. The counterparties to these forward foreign currency exchange contracts are creditworthy multinational commercial banks, which minimizes the risk of counterparty nonperformance. We regularly review our hedging program and may, as part of this review, make changes to the program.

As of June 30, 2018, we had open forward foreign currency exchange contracts with notional amounts of $4.8 million. A hypothetical 10% strengthening in foreign currency exchange rates compared with the U.S. dollar relative to exchange rates at June 30, 2018 would have resulted in a reduction in the value received over the remaining life of these contracts of approximately $0.5 million and, if realized, would negatively affect earnings during the remaining life of the contracts. This analysis does not consider the impact of the hypothetical changes in foreign currency rates would have on the forecasted transactions that these foreign currency sensitive instruments were designated to offset.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of June 30, 2018, management, with the participation of our Chief Executive Officer and Chief Financial 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 Chief Executive Officer and the Chief Financial 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 Chief Executive Officer and Chief Financial Officer concluded that, as of June 30, 2018, 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 was no change in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the quarter ended June 30, 2018 that has materially affected, or is 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. Regardless of outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

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 risk factors set forth below are substantially the same as the risk factors included in our Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 19, 2018.

Risks Related to Our Business, Financial Condition and Capital Requirements

We are in the early stages of clinical drug development and have a very 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 an early clinical-stage biopharmaceutical company with a limited operating history, focused on developing therapeutics for neurodegenerative diseases, including Alzheimer's disease, Parkinson's disease and amyotrophic lateral sclerosis ("ALS"). We commenced operations in May 2015, have no products approved for commercial sale and have not generated any product revenue. Drug development is a highly uncertain undertaking and involves a substantial degree of risk. We have recently initiated clinical trials for our LRRK2 and RIPK1 core programs and have not initiated clinical trials for any of our other current product candidates. 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 $54.7 million and $78.4 million for the three and six months ended June 30, 2018, and $22.1 million and $43.5 million for the three and six months ended June 30, 2017, respectively. As of June 30, 2018, we had an accumulated deficit of $270.1 million.

We have invested significant financial resources in research and development activities, including for our preclinical and clinical product candidates and our BBB platform technology. We do not expect to generate revenue from product sales for several years, if at all. The amount of our future net losses will depend, in part, on the level of our future expenditures and our ability to generate 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;
- 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 manufacturers 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;

- acquire or in-license product candidates, intellectual property and technologies;
- make milestone, royalty or other payments due under any license or collaboration agreements;
- obtain, maintain, protect and enforce our intellectual property portfolio, including intellectual property obtained through license agreements;
- 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;
- 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 never generated any revenue from product sales, and we may never generate product revenue or be profitable.

We have no products approved for commercial sale and have not generated any revenue from product sales. We do not anticipate generating any revenue from product sales until after we have successfully completed clinical development and received regulatory approval for the commercial sale of a product candidate, if ever.

Our ability to generate revenue and achieve profitability depends significantly on many factors, including:

- successfully 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, including those that utilize our BBB platform technology, 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;
- 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, or 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 commercializing any approved product candidate and ongoing compliance efforts.

Even if we are able to generate revenue from the sale of any approved products, we may not become profitable and may need to obtain additional funding to continue operations. Revenue from the sale of any product candidate for which regulatory approval is obtained will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval, the accepted price for the product, the ability to get reimbursement at any price and whether we own the commercial rights for that territory. If the number of addressable patients is not as significant as we anticipate, the indication approved by regulatory authorities is narrower than we expect, or the reasonably accepted population for treatment is narrowed by competition, physician choice or treatment guidelines, we may not generate significant revenue from sales of such products, even if approved. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

Our failure to become and remain profitable would decrease the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our pipeline of product candidates or continue our operations and cause a decline in the value of our common stock, all or any of which may adversely affect our viability.

If we fail to obtain additional financing, we may be unable to complete the development and, if approved, commercialization of our product candidates.

Our operations have required substantial amounts of cash since inception. To date, we have financed our operations primarily through the issuance and sale of convertible preferred stock, the proceeds from our IPO and cash proceeds under our Takeda Collaboration Agreement. We are currently advancing three product candidates, DNL201, DNL151 and DNL747, through clinical development and have several other product candidates in preclinical development, as well as early-stage research projects. Developing our product candidates is expensive, and we expect to continue to spend substantial amounts as we fund our early-stage research projects, continue preclinical development of our seed programs and, in particular, advance our core programs through preclinical development and clinical trials. Even if we are successful in developing our product candidates, obtaining regulatory approvals and launching and commercializing any product candidate will require substantial additional funding.

As of June 30, 2018, we had $551.3 million in cash, cash equivalents and marketable securities. 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 and results of operations and cause the price of our common stock to decline.

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 and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Our current total portfolio consists of thirteen programs. We designate certain programs as core programs and others as seed programs. Together, these programs require significant capital investment. We currently have eight core programs and five seed programs which are at various stages of research, discovery, preclinical and early clinical development. We seek to maintain a process of prioritization and resource allocation to maintain an optimal balance between aggressively advancing lead programs and ensuring replenishment of our portfolio. We regularly review the designation of each program as core or seed, and terminate those programs which do not meet our development criteria, which we have done with nine programs in the past two years.

Due to the significant resources required for the development of our programs, we must focus our programs 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 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. We are heavily dependent on the successful development of our BBB platform technology and the product candidates currently in our core programs, 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 an early stage of development of the product candidates currently in our programs and are further developing our BBB platform technology. To date, we have invested substantially all of our efforts and financial resources to identify, acquire intellectual property for, and develop our BBB platform technology and our programs, including conducting preclinical studies and early-stage clinical trials in our core programs, 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;
- our drug delivery platform technology designed to deliver large molecule therapeutics across the BBB may not be clinically viable;
- 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;
- our competitors may develop platform technologies to deliver large molecule therapeutics across the BBB that render our platform technology obsolete or less attractive;
- the product candidates and BBB platform technology that we develop may not be sufficiently covered by intellectual property for which we hold exclusive rights;
- the product candidates and BBB platform technology 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 BBB platform technology and 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. In the past two years, we have discontinued the development of three programs prior to completion of preclinical development because we did not believe they met our criteria for potential clinical success. We currently have one product candidate, DNL201, in a Phase 1 clinical trial in healthy volunteers in the United States, and two product candidates, DNL151 and DNL747, in Phase 1 clinical trials in healthy volunteers in the Netherlands. DNL201 will advance into a Phase 1b clinical study in Parkinson's disease patients with and without the genetic LRRK2 mutation in 2018. 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. For instance, in 2016, we initiated a Phase 1 clinical trial in a former RIPK1 inhibitor product candidate, DNL104, which we subsequently discontinued based on liver test abnormalities in some clinical trial healthy volunteer participants. 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, or EU, 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, chemistry, 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. 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 revenue and results of operations 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 or to develop commercially successful products. If we fail to successfully identify and develop additional product candidates, our commercial opportunity may be limited.

One of our strategies is to identify and pursue clinical development of additional product candidates. We currently have five seed programs, all of which are in the research, discovery and preclinical stages of development. 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 have concentrated 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 our research and development efforts on addressing neurodegenerative diseases. Collectively, efforts by biopharmaceutical companies in the field of neurodegenerative diseases have seen limited successes in drug development. There are few effective therapeutic options available for patients with Alzheimer's disease, Parkinson's disease, ALS and other neurodegenerative diseases. Our future success is highly dependent on the successful development of our BBB platform technology and 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 engineering product candidates to cross the BBB to enable optimal concentration of the therapeutic in the brain 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 with a genetic link to neurodegenerative diseases, identify and develop molecules that engage the intended target, identify and develop biomarkers, which are biological molecules found in blood, other bodily fluids or tissues that are signs of a normal or abnormal process or of a condition or disease, to select the right patient population and demonstrate target engagement, pathway engagement and impact on disease progression of our molecules, and engineer our molecules to cross the BBB and act directly in the brain. This strategy may not prove to be successful. We may not be able to discover, develop and utilize biomarkers to demonstrate target engagement, pathway engagement and the impact on disease progression of our molecules. We cannot be sure that our approach will yield satisfactory therapeutic products that are safe and effective, scalable, or profitable. Moreover, public perception of drug safety issues, including adoption of new therapeutics or novel approaches to treatment, may adversely influence the willingness of subjects to participate in clinical trials, or if approved, of physicians to subscribe to novel treatments.

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, or IND, or a clinical trial application, or CTA, will result in the FDA or European Medicines Agency, or 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 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, or IRB, approval at each clinical trial site;
- imposition of a 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; a negative finding from an inspection of our clinical trial operations or study sites; developments on trials conducted by competitors for related technology that raises FDA or EMA concerns about risk to patients of the technology broadly; or if the FDA or EMA finds 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;
- transfer of manufacturing processes from our academic collaborators to larger-scale facilities operated by a CMO or by us, and delays or failure by our CMOs or us to make any necessary changes to such manufacturing process; 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.

Our most advanced product candidate, DNL201, is currently in a Phase 1 clinical trial in healthy volunteers, and will advance to a Phase 1b clinical study in Parkinson's disease patients with and without the genetic LRRK2 mutation in 2018. This program was previously subject to a partial clinical hold due to preclinical toxicity data. The partial clinical hold was removed in December 2017 based on additional clinical and preclinical data provided to the FDA. Our second most advanced product candidate, DNL151, is currently in a Phase 1 clinical trial in healthy volunteers. Our third most advanced product candidate, DNL747, is currently in a Phase 1 clinical trial in healthy volunteers. In the nonclinical safety studies for DNL201, DNL151, and DNL747, toxicities were observed at high doses in rat and/or cynomolgus monkey above doses and exposures that will be tested in the clinic. We cannot assure you that DNL201, DNL151, DNL747 or our other product candidates will not be subject to new, partial or full clinical holds in the future.

We may in the future advance product candidates into clinical trials and terminate such trials prior to their completion, such as we did for DNL104, which could adversely affect our business.

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 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. 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 candidate, 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 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 the neurodegenerative disease indications for which we have research programs, including Alzheimer’s disease, Parkinson’s disease and ALS. Companies that we are aware are developing therapeutics in the neurodegenerative disease area include large companies with significant financial resources, such as AbbVie, AstraZeneca, Biogen, Celgene, Eli Lilly, GlaxoSmithKline, Johnson & Johnson, Novartis, Roche, Sanofi and Takeda. In addition to competition from other companies targeting neurodegenerative indications, any products we may develop may also face competition from other types of therapies, such as gene-editing therapies.

Many of our 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 product 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. See "Risks Related to Our Intellectual Property."

The manufacture of our product candidates, particularly those that utilize our BBB platform technology, 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, particularly those that utilize our BBB platform technology, are complex, expensive, highly-regulated and subject to multiple risks. Additionally, the manufacture of biologics involves complex processes, including developing cells or cell systems to produce the biologic, growing large quantities of such cells, and harvesting and purifying the biologic produced by them. As a result, the cost to manufacture a biologic is generally far higher than traditional small molecule chemical compounds, and the biologics manufacturing process is less reliable and is difficult to reproduce. Manufacturing biologics is highly susceptible to product loss due to contamination, equipment failure, improper installation or operation of equipment, vendor or operator error, inconsistency in yields, variability in product characteristics and difficulties in scaling the production process. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects and other supply disruptions. 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 small and large quantities. Our manufacturing partners may be unable to successfully increase the manufacturing capacity for any of our product candidates in a timely or cost-effective manner, or at all. In addition, quality issues may arise during scale-up activities. If our manufacturing partners 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 risks 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 CMOs 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 pivotal 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;
- 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;
- sufficient third-party coverage or reimbursement; 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.

Even if we are able to commercialize any product candidates, such products 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, or VA, 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.

If any of our product candidates that are small molecules obtain regulatory approval, additional competitors could enter the market with generic versions of such drugs, which may result in a material decline in sales of affected products.

Under the Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, a pharmaceutical manufacturer may file an abbreviated new drug application, or ANDA, seeking approval of a generic copy of an approved, small molecule innovator product. Under the Hatch-Waxman Act, a manufacturer may also submit a new drug application, or NDA, under section 505(b)(2) that references the FDA's prior approval of the small molecule innovator product. A 505(b)(2) NDA product may be for a new or improved version of the original innovator product. The Hatch-Waxman Act also provides for certain periods of regulatory exclusivity, which preclude FDA approval (or in some circumstances, FDA filing and reviewing) of an ANDA or 505(b)(2) NDA. These include, subject to certain exceptions, the period during which an FDA-approved drug is subject to orphan drug exclusivity. In addition to the benefits of regulatory exclusivity, an innovator NDA holder may have patents claiming the active ingredient, product formulation or an approved use of the drug, which would be listed with the product in the FDA publication, "Approved Drug Products with Therapeutic Equivalence Evaluations," known as the "Orange Book." If there are patents listed in the Orange Book, a generic or 505(b)(2) applicant that seeks to market its product before expiration of the patents must include in the ANDA a "Paragraph IV certification," challenging the validity or enforceability of, or claiming non-infringement of, the listed patent or patents. Notice of the certification must be given to the innovator, too, and if within 45 days of receiving notice the innovator sues to protect its patents, approval of the ANDA is stayed for 30 months, or as lengthened or shortened by the court.

Accordingly, if any of our small molecule product candidates are approved, competitors could file ANDAs for generic versions of our small molecule drug products or 505(b)(2) NDAs that reference our small molecule drug products, respectively. If there are patents listed for our small molecule drug products in the Orange Book, those ANDAs and 505(b)(2) NDAs would be required to include a certification as to each listed patent indicating whether the ANDA applicant does or does not intend to challenge the patent. We cannot predict which, if any, patents in our current portfolio or patents we may obtain in the future will be eligible for listing in the Orange Book, how any generic competitor would address such patents, whether we would sue on any such patents, or the outcome of any such suit.

We may not be successful in securing or maintaining proprietary patent protection for products and technologies we develop or license. Moreover, if any of our owned or in-licensed patents that are listed in the Orange Book are successfully challenged by way of a Paragraph IV certification and subsequent litigation, the affected product could immediately face generic competition and its sales would likely decline rapidly and materially. Should sales decline, we may have to write off a portion or all of the intangible assets associated with the affected product and our results of operations and cash flows could be materially and adversely affected. See "Risks Related to Our Intellectual Property."

Our biologic, or large molecule, 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 faster than our competitors, our large molecule product candidates may face competition from biosimilar products. In the United States, our large molecule 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, or BLA, pathway. The Biologics Price Competition and Innovation Act of 2009, or 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 large molecule product candidates.

We believe that any of our large molecule 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 large molecule 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;
- the inability to commercialize any product candidate; and
- a decline in our share price.

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. Moreover, the FDA, EMA or other regulatory authorities may fail to approve companion diagnostics that we contemplate using with our therapeutic product candidates. 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.

Applications for our product candidates could fail to receive regulatory approval 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 an 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 its 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.

Our most advanced product candidates, DNL201, DNL151, and DNL747 are currently our only clinical stage product candidates. In 2017, we initiated Phase 1 clinical trials of DNL201 and DNL151 in healthy volunteers. In this trial, DNL201 achieved its safety, pharmacokinetic, and pharmacodynamic objectives. DNL201 was generally well tolerated with no serious adverse events at doses that achieved high levels of CSF exposure and robust target engagement as measured by two blood based biomarkers of LRRK2 activity. To date, DNL151 has been well tolerated. We initiated a Phase 1 clinical trial of DNL747 in healthy volunteers in March 2018. Adverse events and other side effects may result from higher dosing, repeated dosing and/or longer-term exposure to DNL201, DNL151 and/or DNL747 and could lead to delays and/or termination of the development of these product candidates.

In 2016, we initiated a Phase 1 clinical trial in a former RIPK1 inhibitor product candidate, DNL104, which we subsequently discontinued based on liver function test abnormalities in some clinical trial healthy volunteer participants.

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 license 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 cause our stock price to decline and, if judgments exceed our insurance coverage, could adversely affect our results of operations and business. 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;
- 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 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, results of operations, and 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. 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, or 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 plan to seek orphan drug designation for some 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. We plan to seek orphan drug designations for some product candidates and may be unable to obtain such designations.

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 if one of our product candidates receives orphan exclusivity, 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 health care system that could impact our ability to sell our products profitably. In particular, in 2010, the Affordable Care Act, or 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. Recent changes in the U.S. administration could lead to repeal of or changes in 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.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of 2% per fiscal year, which went into effect in 2013, and will remain in effect through 2025 unless additional Congressional action is taken. The American Taxpayer Relief Act of 2012 further reduced Medicare payments to several providers, including hospitals and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

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 federal Anti-Kickback Statute, which 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, which 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, or HIPAA, which 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, or HITECH, and their respective implementing regulations, which 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, which 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, which broadly regulate marketplace activities and activities that potentially harm consumers; and

- analogous state and foreign laws and regulations, such as state and foreign anti-kickback, false claims, consumer protection and unfair competition laws which 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 that 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 that 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; and state and foreign laws governing 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 the success of 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.

Our business activities may be subject to the Foreign Corrupt Practices Act, or 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 health care 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, or 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 anticipate seeking third-party collaborators for the research, development, and commercialization of certain of the product candidates we may develop. For example, we have collaborations with F-star, Takeda 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. If we enter into any such arrangements with any third parties, we will likely have 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 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 on our ability to obtain and maintain regulatory approval of our products 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;
- 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, including our BBB platform technology; 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.

If we enter into collaborations to develop and potentially commercialize any product candidates, we may not be able to realize the benefit of such transactions 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 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 and preclinical studies and expect to continue to do so for 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 third-party manufacturers 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 may be unable to establish any further agreements with third-party manufacturers or to do so on acceptable terms. Even if we are able to establish agreements with third-party manufacturers, reliance on third-party manufacturers 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 third-party manufacturers, 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 manufacturers could delay clinical development or marketing approval. We do not currently have arrangements in place for redundant supply for any of our product candidates. 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 raw materials required for the production of our product candidates. 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 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 or for our BBB platform technology, our competitors could develop and commercialize products or technology similar or identical to ours, and our ability to successfully commercialize any product candidates we may develop, and our technology 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 BBB platform technology and any proprietary product candidates and other technologies we may develop. We seek to protect our proprietary position by in-licensing intellectual property and filing patent applications in the United States and abroad relating to our BBB platform technology, core programs and product candidates, as well as other technologies that are important to our business. Given that the development of our technology and product candidates is at an early stage, our intellectual property portfolio with respect to certain aspects of our technology and product candidates is also at an early stage. For example, as of June 30, 2018, we do not own or in-license any issued patents in the United States directed to the composition of matter of any of the antibodies or enzymes that we have thus far developed using our BBB platform technology. In addition, we do not own or in-license any issued United States patents covering the composition of matter of the Fc domain portion of our BBB platform technology that binds to transferrin receptor, or any issued United States patents that cover the composition of matter of antibodies or enzymes being developed in our TREM2, aSyn, or IDS core programs. We have filed or intend to file patent applications on these 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 BBB platform technology, 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 BBB platform technology, 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 BBB platform technology, 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 owned or in-licensed patent applications 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 owned and licensed patents. With respect to both in-licensed and owned intellectual property, we cannot predict whether the patent applications we and our licensors 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 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 non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development output, such as our employees, corporate collaborators, outside scientific collaborators, CROs, contract manufacturers, consultants, advisors, and other third parties, any of these parties may breach the agreements and disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection. In addition, 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 licensors were the first to make the inventions claimed in any of our owned or licensed patents or pending patent applications, or that we or our licensors 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 owned or in-licensed pending and future patent applications may not result in patents being issued which protect our BBB platform technology, 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 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 that we own or in-license may be challenged, narrowed, circumvented, or invalidated by third parties. Consequently, we do not know whether our BBB platform technology, 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 licensors may be subject to a third-party preissuance submission of prior art to the United States Patent and Trademark Office, or USPTO, or become involved in opposition, derivation, revocation, reexamination, post-grant and *inter partes* review, or interference proceedings or other similar proceedings challenging our owned or licensed patent rights. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate or render unenforceable, our owned or in-licensed patent rights, allow third parties to commercialize our BBB platform technology, 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 licensors, 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 licensor's priority of invention or other features of patentability with respect to our owned or in-licensed 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 BBB platform technology, 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.

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 owned and in-licensed patents and patent applications are, and may in the future be, co-owned with third parties. For example, we currently, and may in the future, co-own certain patents and patent applications relating to our BBB platform technology with F-star. In addition, certain of our licensors co-own the patents and patent applications we in-license with other third parties with whom we do not have a direct relationship. Our exclusive rights to certain of these patents and patent applications are 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. For example, under our license agreement with VIB, we license certain patents and patent applications co-owned by VIB and KU Leuven. Our rights to KU Leuven's interest in such patents and patent applications depends on an operating agreement between VIB and KU Leuven, pursuant to which VIB controls the licensing of such patents and patent applications. If our 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. 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 BBB platform technology and product candidates are subject, in part, to the terms and conditions of licenses granted to us by others.

We are heavily reliant upon licenses to certain patent rights and proprietary technology from third parties that are important or necessary to the development of our BBB platform technology and product candidates. For example, in June 2016, we entered into a license agreement with Genentech pursuant to which we received an exclusive license to certain of Genentech's intellectual property relating to our LRRK2 program, including our DNL201 and DNL151 product candidates. In March 2017, we entered into an exclusive license agreement with VIB pursuant to which we received exclusive and non-exclusive licenses to certain patent rights and related know-how pertaining to antibodies that target BACE1.

In addition, our agreements with F-star and other license agreements may not provide exclusive rights to use certain licensed intellectual property and technology 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. For example, F-star retains the right to use itself, and to license to others, its modular antibody technology for any purpose other than the targets and antibodies which we have agreed with F-star would or may be exclusively available to us. As a result, we may not be able to prevent competitors or other third parties from developing and commercializing competitive products that also utilizes technology that we have in-licensed.

In addition, subject to the terms of any such license 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 patents and patent applications covering the technology that we license from third parties. For example, under our agreements with F-star and Genentech, the licensors control prosecution and, in the case of F-star and in specified circumstances, enforcement of certain of the patents and patent applications licensed to us. We cannot be certain that our in-licensed patents and patent applications that are controlled by our licensors will be prepared, filed, prosecuted, maintained, enforced, and defended in a manner consistent with the best interests of our business. If our licensors fail to prosecute, maintain, enforce, and defend such patents, or lose rights to those patents or patent applications, the rights we have licensed may be reduced or eliminated, our right to develop and commercialize our BBB platform technology and any of our product candidates that are subject of such licensed rights could be adversely affected, and we may not be able 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 third parties, we may still be adversely affected or prejudiced by actions or inactions of our licensees, our licensors and their counsel that took place prior to the date upon which we assumed control over patent prosecution.

Furthermore, our owned and in-licensed patents may be subject to a reservation of rights by one or more third parties. For example, our license to certain intellectual property owned by Genentech is subject to certain research rights Genentech granted to third parties prior to our license agreement. In addition, certain of our in-licensed intellectual property relating to RIPK1 was funded in part by the U.S. government. As a result, the U.S. government may have certain rights to such 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 we have licensed that was 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 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 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 license intellectual property rights from third parties or otherwise experience disruptions to our business relationships with our licensors, we could lose license rights that are important to our business.

We have entered into license agreements with third parties and may need to obtain additional licenses from others to advance our research or allow commercialization of product candidates we may develop or our BBB platform technology. It is possible that we may be unable to obtain additional licenses 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 or continue to utilize our existing BBB platform technology, 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, including our BBB platform 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 license agreements, and we expect our future agreements, will impose various development, diligence, commercialization, and other obligations on us. Certain of our license agreements also require us to meet development timelines, or to exercise commercially reasonable efforts to develop and commercialize licensed products, in order to maintain the licenses. In spite of our efforts, our licensors might conclude that we have materially breached our obligations under such license agreements and might therefore terminate the license agreements, thereby removing or limiting our ability to develop and commercialize products and technology covered by these license agreements. If these in-licenses are terminated, or if the underlying patents fail to provide the intended exclusivity, competitors or other third parties would have the freedom to seek regulatory approval of, and to market, products identical to ours and we may be required to cease our development and commercialization of certain of our product candidates or of our current BBB platform technology. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

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

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

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

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

Filing, prosecuting, and defending patents on our BBB platform technology, 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 or any of our 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 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 are also dependent on our 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 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, or 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 or our licensors were the first to either (i) file any patent application related to our BBB platform technology, product candidates or other technologies or (ii) invent any of the inventions claimed in our or our licensor's 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 owned or in-licensed patent applications and the enforcement or defense of our owned or in-licensed 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 biologics and 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 BBB platform technology, 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 or one of our licensors initiated legal proceedings against a third party to enforce a patent covering our BBB platform technology, 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 owned or in-licensed 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 BBB platform technology, 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 BBB platform technology, 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 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 owned or in-licensed U.S. patents may be eligible for limited patent term extension under the Hatch-Waxman Act. The Hatch-Waxman Act permit 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 prospects could be materially harmed.

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

We or our licensors may be subject to claims that former employees, collaborators or other third parties have an interest in our owned or in-licensed patents, trade secrets, or other intellectual property as an inventor or co-inventor. For example, we or our licensors may have inventorship disputes arise from conflicting obligations of employees, consultants or others who are involved in developing our BBB platform technology, product candidates or other technologies. Litigation may be necessary to defend against these and other claims challenging inventorship or our or our licensors' ownership of our owned or in-licensed patents, trade secrets or other intellectual property. If we or our licensors fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, intellectual property that is important to our BBB platform technology, 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 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 BBB platform technology, 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. 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, contract manufacturers, consultants, advisors, and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants as well as 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. 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, in-licenses or otherwise, necessary rights to our BBB platform technology, product candidates or other technologies.

We currently have rights to intellectual property, through licenses from third parties, to identify and develop our BBB platform technology and product candidates. Many pharmaceutical companies, biotechnology companies, and academic institutions are competing with us in the field of neurodegeneration and BBB technology and 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 BBB technologies that we are evaluating for use with our current or future product candidates. In addition, with respect to any patents we co-own with third parties, we may require licenses to such co-owners' interest to such patents. However, we may be unable to secure such licenses or otherwise acquire or in-license any compositions, methods of use, processes, or other intellectual property rights from third parties that we identify as necessary for our current or future product candidates and our BBB platform technology. 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 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 licensors, 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 claims could have a material adverse effect on our business, financial condition, results of operations, and prospects.

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

The field of discovering treatments for neurodegenerative diseases, especially using BBB technology, 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. As such, there may be significant intellectual property related litigation and proceedings relating to our owned and in-licensed, and other third party, intellectual property and proprietary rights in the future.

Our commercial success depends in part on our, our licensors' and our collaborators' ability to avoid 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. 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 relating to BBB technology and 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 BBB platform technology, product candidates and other technologies may give rise to claims of infringement of the patent rights of others. We cannot assure you that our BBB platform technology, 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 our BBB platform technology, product candidates, and other technologies might assert are infringed by our current or future BBB platform technology, product candidates or other technologies, including claims to compositions, formulations, methods of manufacture or methods of use or treatment that cover our BBB platform technology, 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 BBB platform technology, product candidates or other technologies, could be found to be infringed by our BBB platform technology, 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 BBB platform technology, 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 BBB platform technology, 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 BBB platform technology, 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 BBB platform technology, 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 BBB platform technology, 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 BBB platform technology, 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 or results of operations.

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 owned or in-licensed by us 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 owned and in-licensed patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our owned or in-licensed 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 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 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. Ryan Watts, 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. We do not maintain “key man” insurance policies on the lives of all of these individuals or the lives of any of our other employees. 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 June 30, 2018, we had approximately 160 employees, all of whom were full-time. As our development plans and strategies develop, and as we transition into 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. Our ability to successfully manage our expected growth is uncertain given the fact that all of our executive officers have joined us since February 2015. This lack of long-term experience working together as a company may adversely impact our senior management team's ability to effectively manage our business and growth.

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 and may in the future engage in acquisitions 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 in the past engaged in acquisitions and strategic partnerships, and we may engage in various acquisitions and strategic partnerships in the future, including licensing or acquiring complementary products, intellectual property rights, technologies, or businesses. For instance, in January 2018 we entered into the Takeda Collaboration Agreement, and in connection therewith we issued and sold to Takeda 4,214,559 shares of our common stock for an aggregate purchase price of $110.0 million in February 2018. Additionally, on May 30, 2018, we exercised our buy-out option in connection with the F-star Collaboration Agreement and entered into a Purchase Agreement pursuant to which we acquired all of the outstanding shares of F-star Gamma. Any acquisition or strategic partnership may entail numerous risks, including:

- increased operating expenses and cash requirements;
- the assumption of indebtedness or contingent liabilities;
- the 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;
- the 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 security breaches.

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. Although to our knowledge we have not experienced any such material system failure or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in 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 or proprietary information, we could incur liability and the further development and commercialization of our product candidates could be delayed.

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, CMOs, 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.

All of our operations including our corporate headquarters are located in a single 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 suppliers and collaborative relationships 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;
- 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 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, 2017, we had federal net operating loss carryforwards of approximately $134.1 million, and federal research and development tax credit carryforwards of approximately $2.9 million which will begin to expire in 2035. 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 ("IPO"), in December 2017 and recent private placements 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.

Risks Related to Ownership of Our Common Stock

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

The trading price of our common stock has been and may continue to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. In addition to the factors discussed in this "Risk Factors" section and elsewhere in this report, these factors 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;
- failure to develop our BBB platform technology;
- 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; and
- general economic, industry, and market conditions.

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. In the past, when the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our stockholders were to bring a lawsuit against us, the defense and disposition of any such lawsuits could be costly and divert the time and attention of our management and harm our operating results, regardless of the merits of such a claim.

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 and trading volume could decline.

The trading market for our common stock relies in part on the research and reports that industry or financial analysts publish about us or our business. If one or more of the analysts covering our business downgrade their evaluations of our stock, 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 or trading volume to decline.

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.

As of June 30, 2018, our directors, executive officers, holders of more than 5% of our outstanding stock and their respective affiliates beneficially own shares representing more than 50.0% 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, or the JOBS Act. We will remain an emerging growth company until the earliest to occur of: the last day of the fiscal year in which we have more than $1.07 billion in annual revenue; the date we qualify as a "large accelerated filer," with at least $700 million of equity securities held by non-affiliates; the issuance, in any three-year period, by us of more than $1.0 billion in non-convertible debt securities; and the last day of the fiscal year ending after the fifth anniversary of our initial public offering, or December 31, 2022. References herein to "emerging growth company" are intended to have the meaning associated with it in the 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, or SOX Section 404, 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, are be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

We have incurred and will continue to incur increased costs as a result of operating as a public company, and our management has been and will continue to be required to devote substantial time to new compliance initiatives and corporate governance practices, including maintaining an effective system of internal controls over financial reporting.

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 expect that we will need to hire additional accounting, finance, and other personnel in connection with our efforts to comply with the requirements of being, a public company, and our management and other personnel will need to continue to devote a substantial amount of time towards maintaining compliance with these requirements. These requirements have and will continue to increase our legal and financial compliance costs and will make some activities more time-consuming and costly. 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 are subject to reporting and other obligations under the Securities Exchange Act of 1934, as amended, or 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 have not paid and do not expect to pay any dividends for the foreseeable future. Any return on investment may be limited to the value of our common stock.

We have never paid cash dividends on our common stock and do not anticipate that we will pay any dividends in the foreseeable future. We currently intend to retain our future earnings, if any, to maintain and expand our existing operations. If we do not pay dividends, our common stock may be less valuable because a return on your investment will only occur if our stock price appreciates.

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

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a claim of breach of fiduciary duty;
- any action asserting a claim against us arising under the DGCL, our amended and restated certificate of incorporation, or our amended and restated bylaws; and
- any action asserting a claim against us that is governed by the internal-affairs doctrine.

Our amended and restated certificate of incorporation further provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act.

These exclusive-forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, or other employees, which may discourage lawsuits against us and our directors, officers, and other employees. If a court were to find either exclusive-forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could seriously harm our business.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Recent Sales of Unregistered Securities

On February 23, 2018, we issued and sold 4,214,559 shares of common stock to Takeda for aggregate proceeds of $110.0 million in connection with the Takeda Collaboration Agreement. No underwriters were involved in the sales and the certificates representing the securities sold and issued contain legends restricting transfer of the securities without registration under the Securities Act or an applicable exemption from registration.

The offer, sale and issuance of the securities described above was exempt from registration under the Securities Act under Section 4(a)(2) of the Securities Act as a transaction by an issuer not involving a public offering. The recipient of securities in this transaction acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the securities issued in this transaction. The recipient of securities in this transaction was an accredited person and had adequate access, through employment, business or other relationships, to information about the registrant.

No other unregistered securities were sold by us from January 1, 2018 through June 30, 2018.

Use of Proceeds from Registered Securities

On December 7, 2017, our Registration Statement on Form S-1 (File No. 333-221522) was declared effective by the SEC for our initial public offering of common stock. We started trading on The NASDAQ Global Select Market on December 8, 2017, and the transaction formally closed on December 12, 2017. In connection with the initial public offering, we sold an aggregate of 15,972,221 shares of common stock, including 2,083,333 shares sold pursuant to the underwriters' full exercise of their option to purchase additional shares, at a price to the public of $18.00 per share. The aggregate offering price for shares sold in the offering was $287.5 million. The joint book-running managers for the initial public offering were Goldman, Sachs & Co. LLC, Morgan Stanley & Co. LLC, and J.P. Morgan Securities LLC. After deducting underwriting discounts, commissions and offering expenses paid or payable by us of approximately $23.2 million, the net proceeds from the offering were approximately $264.3 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 December 8, 2017 pursuant to Rule 424(b)(4). We invested the funds received in short-term, interest-bearing investment-grade securities and government securities.

Issuer Purchases of Equity Securities

Not applicable.

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

Exhibit Number	Description	Incorporated by Reference			
		Form	File No.	Number	Filing Date
3.1	Amended and Restated Certificate of Incorporation of the Registrant.	8-K	001-38311	3.1	12/12/2017
3.2	Amended and Restated Bylaws of the Registrant.	8-K	001-38311	3.2	12/12/2017
10.1#	First Amendment to Lease between the Registrant and HCP Oyster Point III LLC, dated May 2, 2018.				
10.2#	Amended and Restated Licence Agreement between F-star Gamma Limited and F-star Biotechnology Limited, dated August 24, 2016.				
10.3#	Side Letter between the Registrant, F-Star Gamma Limited, F-Star Biotechnology Limited and f-star Biotechnologische Forschungs-und Entwicklungsges m.b.H., dated May 21, 2018.				
10.4#	Share Purchase Agreement between the Registrant, certain shareholders of F-star Gamma Limited and Shareholder Representative Services LLC, dated May 30, 2018.				
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act.				
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act.				
32.1*	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act.				
32.2*	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act.				
101.INS	XBRL Instance Document.				
101.SCH	XBRL Taxonomy Extension Schema Document.				
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.				
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.				
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.				
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.				

* 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 Denali Therapeutics Inc. 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 Form 10-Q, irrespective of any general incorporation language contained in such filing.

\# Portions of this exhibit have been omitted pursuant to a request for confidential treatment and this exhibit has been filed separately with the SEC.

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.

DENALI THERAPEUTICS INC.

Date: August 9, 2018

By: /s/ Ryan J. Watts

Ryan J. Watts, Ph.D.

President and Chief Executive Officer

(Principal Executive Officer)

Date: August 9, 2018

By: /s/ Steve E. Krognes

Steve E. Krognes

Chief Financial Officer and Treasurer

(*Principal Financial and Accounting Officer*)

FIRST AMENDMENT TO LEASE
(Relocation and Expansion)

This FIRST AMENDMENT TO LEASE ("**First Amendment**") is made and entered into as of May 2, 2018 (the "**Effective Date**"), by and between HCP OYSTER POINT III LLC, a Delaware limited liability company ("**Landlord**"), and DENALI THERAPEUTICS INC., a Delaware corporation ("**Tenant**").

R E C I T A L S :

A. Landlord and Tenant are parties to that certain Lease dated September 24, 2015 (the "**Lease**") whereby Tenant currently leases premises (the "**Original Premises**") containing approximately 38,109 rentable square feet of space ("**RSF**") on the 2nd floor of the building located at 151 Oyster Point Boulevard, South San Francisco, California (the "**151 Building**"), which Building is located in that certain office project currently known as "The Cove at Oyster Point" (the "**Project**").

B. Landlord and Tenant desire to substitute the Original Premises with approximately 148,020 RSF (the "**Substitute Premises**") consisting of all of the rentable area in the 4-story building located at 161 Oyster Point Boulevard in the Project (the "**161 Building**"), as set forth on **Exhibit A** attached hereto, and to make other modifications to the Lease on the terms and conditions set forth in this First Amendment.

A G R E E M E N T :

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. **Capitalized Terms**. All capitalized terms when used herein shall have the same meaning as is given such terms in the Lease unless expressly superseded by the terms of this First Amendment.

2. **Modification of Premises**.

2.1. **Substitute Premises Commencement Date**. Effective as of the date (the "**Substitute Premises Commencement Date**") which is the later to occur of (i) the date upon which the Substitute Premises are "Ready for Occupancy" as defined in Section 3(a) of the Tenant Work Letter attached hereto as **Exhibit B**, and (ii) February 1, 2019, (a) subject to the terms of Section 3, below, the Lease shall terminate and be of no further force or effect with respect to the Original Premises, and (b) Tenant shall lease from Landlord and Landlord shall lease to Tenant the Substitute Premises on the terms and conditions set forth in the Lease, as amended by this First Amendment. Consequently, effective upon the Substitute Premises Commencement Date, the Substitute Premises shall be substituted under the Lease for the Original Premises and all references in the Lease, as hereby amended, to the "Premises" shall mean and refer to the Substitute Premises, all references

to the Lease Commencement Date, as to the Substitute Premises, shall mean the Substitute Premises Commencement Date, and all references to the "Building" shall mean and refer to the 161 Building (which is designated as "B6" on the Project Site Plan attached to the Lease as **Exhibit A**), except the references to "Building" in the last sentence of Section 1.1.1, which shall mean the Building located at 151 Oyster Point. In addition, Tenant's termination rights under Sections 11 and 13 of the Lease shall apply with respect to the Substitute Premises commencing on the Effective Date. Following the construction of the Substitute Premises, Landlord shall have the measurement rights as set forth in Section 1.2 of the Lease.

2.2. **Early Occupancy**. To the extent a portion of the Substitute Premises is Ready for Occupancy prior to the Substitute Premises Commencement Date, provided such occupancy will not delay Landlord's completion of the Tenant Improvements and Landlord's Work in the remainder of the Substitute Premises, Tenant shall have the right, by delivering written notice to Landlord, to occupy for the conduct of its business any such portion. Such occupancy shall not accelerate the Substitute Premises Commencement Date or the Surrender Date and shall be on and of the terms of this First Amendment, except that Tenant shall only pay Base Rent on the square footage occupied by Tenant at the Monthly Base Rent Rate per RSF set forth in Section 6 with respect to months 1-12 of the Substitute Premises Term and Tenant's Share shall be based on the square footage actually occupied by Tenant during such period.

3. **Surrender of Original Premises**.

3.1. **Vacation and Surrender**. Subject to the terms and conditions set forth in Section 3.2, Tenant may continue to occupy the Original Premises and undertake the Decommissioning Process on all of the terms of the Lease (except the obligation to pay Base Rent, Direct Expenses or Additional TI Allowance Payments with respect thereto) and hereby agrees to vacate the Original Premises and surrender and deliver exclusive possession of the Original Premises to Landlord, within sixty (60) days after the Substitute Premises Commencement Date (the "**Surrender Date**") in accordance with the provisions of the Lease and thereafter, Tenant shall have no further obligations with respect to the Original Premises (including, without limitation, any further obligation to make the Additional TI Allowance Payment, which obligation shall end on the Substitute Premises Commencement Date) except with respect to the period of Tenant's tenancy prior to the Surrender Date. If Tenant fails to vacate the Original Premises and surrender and deliver exclusive possession of the Original Premises to Landlord on or before the Surrender Date in accordance with the provisions of the Lease, then (subject to the terms of Section 3.2, below and Section 15.4 of the Lease) Tenant shall be deemed to be in holdover of the Original Premises and shall be subject to the terms of Article 16 of the Lease. Subject to Section 3.2, Tenant shall not be required to restore any improvements or alterations that are in the Original Premises as of the date hereof, and may surrender the Original Premises in satisfaction of its surrender obligations under the Lease vacant, broom clean and otherwise in substantially the same condition as of the date hereof. Notwithstanding the foregoing, if the Substitute Premises Commencement Date occurs prior to Landlord's delivery of the Substitute Premises in the required condition due to Tenant Delay, at Tenant's request, the commencement of the above sixty (60) day period and the Surrender Date shall be delayed by up to one (1) day for each such day of delay (not to exceed sixty (60) days), and Tenant may continue to occupy the Original Premises during such interim period on all of the

terms of the Lease (including the obligation to pay Base Rent, Direct Expenses and Additional TI Allowance Payments with respect thereto).

3.2. **Decommissioning**. Notwithstanding the foregoing, Landlord acknowledges that following the Substitute Premises Commencement Date, Tenant will be required to close or transfer certain permits and licenses and decommission the Original Premises and to receive written closure from the applicable governmental agencies as required by applicable laws (the "**Decommissioning Process**"). During the Decommissioning Process, Tenant shall have the right to access the Original Premises as reasonably required to complete such Decommissioning Process and in accordance with Section 3.1. During the Decommissioning Process, Tenant shall be required to pay for all utilities actually used by Tenant in the Original Premises. If the Decommissioning Process has not been completed by the Surrender Date (the "**Outside Decommissioning Date**"), then, subject to the terms of Section 5.3.4.4 of the Lease, during the period from the Outside Decommissioning Date to the date Tenant completes the Decommissioning Process, Tenant shall not be considered to be in holdover but shall be required to pay Base Rent and Tenant's Share of Direct Expenses for the Original Premises at the rate applicable immediately prior to the Substitute Premises Commencement Date (prorated as applicable).

3.3. **Representations of Tenant**. As of the Effective Date, Tenant represents and warrants to Landlord that (a) Tenant has not heretofore assigned or sublet all or any portion of its interest in the Lease or in the Original Premises; (b) no other person, firm or entity has any right, title or interest in the Lease or in the Original Premises through Tenant; (c) Tenant has the full right, legal power and actual authority to enter into this First Amendment and to terminate Tenant’s lease with respect to the Original Premises without the consent of any person, firm or entity; and (d) Tenant has the full right, legal power and actual authority to bind Tenant to the terms and conditions of the Lease as amended by this First Amendment. Tenant further represents and warrants to Landlord that as of the Effective Date there are no, and as of the Substitute Premises Commencement Date there shall not be any, mechanic’s liens or other liens encumbering all or any portion of the Original Premises, by virtue of any act on the part of Tenant, its predecessors, contractors, agents, employees, successors or assigns that was not otherwise approved by Landlord. Notwithstanding the termination of the Lease with respect to the Original Premises in accordance with Section 2 of this First Amendment, the representations and warranties set forth in this Section 3.3 shall survive the Substitute Premises Commencement Date and Tenant shall be liable to Landlord for any inaccuracy or any breach thereof.

4. **Condition of Substitute Premises**. Landlord shall construct the 161 Building and Substitute Premises in accordance with the terms of the Tenant Work Letter attached hereto as **Exhibit B**. Except as provided in the Tenant Work Letter, Landlord shall not be obligated to provide or pay for any improvement work or services related to the improvement of the Substitute Premises. Tenant acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty regarding suitability of the 161 Building, Substitute Premises or Project for the conduct of Tenant's business. Notwithstanding the foregoing, the terms of the last two (2) sentences of Section 1.1.1 of the Lease shall apply with respect to the Substitute Premises.

4.1. **Late Delivery**. The last two (2) sentences of Section 2.1 of the Lease are hereby deleted and shall be of no applicability to the Substitute Premises. If Landlord has not delivered possession of the Substitute Premises in the condition required by Section 4, above, on or before July 1, 2018, then, as Tenant's sole remedy for such delay, the date Tenant is otherwise obligated to commence payment of rent with respect to the Substitute Premises shall be delayed by one day for each day that the delivery date is delayed beyond such date. The foregoing date shall be extended to the extent of any delays in delivery of possession caused by Tenant Delay, as provided in Section 1(j) of the Tenant Work Letter, war, terrorism, acts of God, natural disaster, civil unrest, governmental strike or area-wide of industry-wide labor disputes, inability to obtain services, labor, or materials or reasonable substitutes therefor, or delays due to utility companies that are not the result of any action or inaction of Landlord (provided that such delay shall not extend any such date by more than ninety (90) days).

4.2. **CASp Disclosure**. As required by Section 1938(e) of the California Civil Code, Landlord hereby states as follows: "A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises." For purposes of Section 1938 of the California Civil Code, Landlord hereby discloses to Tenant, and Tenant hereby acknowledges, that the Project, 161 Building and Substitute Premises have not undergone inspection by a Certified Access Specialist (CASp). In furtherance of the foregoing, Landlord and Tenant hereby agree that any CASp inspection requested by Tenant shall be conducted, at Tenant's sole cost and expense, by a CASp approved in advance by Landlord. Any repairs within the Premises required to correct violations of construction-related accessibility standards shall be made by the appropriate party as required by the terms of the Lease.

5. **Substitute Premises Term**. Landlord and Tenant acknowledge that the Lease Expiration Date is July 31, 2024, pursuant to the terms of the Lease. Notwithstanding anything to the contrary set forth in the Lease, the Lease Term is hereby extended and the Lease Expiration Date shall be updated to be the day prior to the tenth (10th) anniversary of the Substitute Premises Commencement Date. The period of time beginning on the Substitute Premises Commencement Date and ending on the Lease Expiration Date shall be referred to herein as the "**Substitute Premises Term**."

6. **Base Rent**. Prior to the Substitute Premises Commencement Date, Tenant shall continue to pay Base Rent with respect to the Original Premises in accordance with the terms of the Lease. Commencing as of the Substitute Premises Commencement Date, and continuing throughout the Substitute Premises Term, the Base Rent schedule set forth in Section 4 of the Summary of Basic Lease Information shall be deleted and Tenant shall pay to Landlord monthly installments of Base Rent for the Substitute Premises as follows:

Year of Substitute Premises Term	Annual Base Rent	Monthly Installment of Base Rent	Monthly Base Rent Rate per RSF
1 (Months 1 – 6)*	N/A	$381,151.50	$5.15
1 (Months 7 – 12)**	N/A	$665,354.25	$5.15
2	$9,467,359.20	$788,946.60	$5.33
3	$9,798,805.58	$816,567.13	$5.5166
4	$10,141,619.90	$845,134.99	$5.7096
5	$10,496,690.28	$874,724.19	$5.9095
6	$10,864,016.71	$905,334.73	$6.1163
7	$11,244,309.70	$937,025.81	$6.3304
8	$11,637,746.86	$969,812.24	$6.5519
9	$12,045,038.69	$1,003,753.22	$6.7812
10	$12,466,718.06	$1,038,893.17	$7.0186

***Note**: Tenant's obligation to pay Base Rent for the first six (6) months of the Substitute Premises Term shall be determined as if the Premises contained only 74,010 RSF. Such calculation shall not affect Tenant's right to use the entire Substitute Premises, and Tenant shall be responsible for 100% of all of Tenant's other obligations under the Lease).

****Note**: Tenant's obligation to pay Base Rent for months seven (7) through twelve (12) of the Substitute Premises Term shall be determined as if the Premises contained only 129,195 RSF. Such calculation shall not affect Tenant's right to use the entire Substitute Premises, and Tenant shall be responsible for 100% of all of Tenant's other obligations under the Lease.

7. **Tenant's Share of Direct Expenses**. Prior to the Substitute Premises Commencement Date, Tenant shall continue to pay Tenant's Share of Direct Expenses in connection with the Original Premises in accordance with the terms of the Lease. Effective as of the Substitute Premises Commencement Date, and continuing throughout the Substitute Premises Term, Tenant shall instead pay Tenant's Share of Direct Expenses in connection with the Substitute Premises in

accordance with the terms of the Lease, provided that with respect to the Substitute Premises, Tenant's Share shall be equal to 100%.

8. **Letter of Credit**. Effective as of the First Amendment Effective Date, the "L-C Amount" as defined in Section 21.1 of the Lease (which was previously $450,913.20), shall be increased to equal $1,500,000.00. Within ten (10) business days after the full execution of this First Amendment, Tenant shall provide Landlord with either (i) a new L-C in such amended L-C Amount, which new L-C complies with the requirements of Article 21 of the Lease and Landlord shall concurrently return the existing L-C, or (ii) provide an amendment to the L-C currently held by Landlord to increase the amount thereof to such amended L-C Amount. For the avoidance of doubt, subject to Section 21 hereof, the provisions of Article 21 of the Lease shall apply, as modified herein, after the First Amendment Effective Date.

9. **Option Term**. Tenant shall continue to have the right to extend the Lease Term beyond the expiration of the Substitute Premises Term in accordance with the terms of Section 2.2 of the Lease, provided that the "Option Term" shall be for a term of ten (10) years (and not five (5) years). All references in Section 2.2 of the Lease to "five (5) years" shall be amended to be "ten (10) years", and all references to the Lease Term or expiration of the Lease Term shall be deemed to refer to the Substitute Premises Term.

10. **Right of First Offer**. Tenant shall no longer have a right of first offer to lease space in the Project, and the terms of Section 1.3 of the Lease are hereby deleted and of no further force or effect.

11. **New Building Warranty**. During the first twelve (12) months of the initial Substitute Premises Term, Landlord shall perform any repairs or replacement (outside of regular industry standard maintenance) required to the 161 Building or any Building Systems (including the roof membrane and Building HVAC system) at Landlord's sole cost and expense, and not as a part of Operating Expenses, except to the extent such costs result from the negligence or willful misconduct of Tenant or Tenant's agents or contractors, all of which costs shall be borne by Tenant. Costs of routine service and maintenance of the Building Systems shall be included in Operating Expenses. Notwithstanding anything to the contrary herein or in the Lease, Landlord shall use commercially reasonable efforts to utilize any warranties to repair the Building and Building Systems before seeking to pass through any repair costs to Tenant that could be considered capital expenditures.

12. **Tenant Right to Perform Maintenance**. Tenant shall have the right, by delivering not less than ninety (90) days prior written notice to Landlord, to assume the responsibility for the routine maintenance of any of the Building Systems. If Tenant makes such election, then the Building Systems that Tenant will be maintaining (the "**Tenant Maintenance Items**") shall be maintained, repaired and replaced by Tenant (i) in a commercially reasonable first-class condition, (ii) in accordance with any applicable manufacturer specifications relating to any particular component of such Building Systems, and (iii) in accordance with applicable Laws, all at Tenant's sole cost and expense. Tenant shall contract with a qualified, experienced professional third party service companies (a "**Service Contract**") to perform such maintenance. Tenant shall regularly, in accordance with commercially reasonable standards, generate and maintain preventive maintenance records relating to any Tenant Maintenance Items (“**Preventative Maintenance Records**”). Tenant

shall deliver copies of all current Service Contracts and Preventative Maintenance Records to Landlord on a quarterly basis during any period in which Tenant is performing such maintenance.

13. **Parking**. Commencing on the Substitute Premises Commencement Date, the number of parking spaces available for Tenant's use shall be increased to 377 unreserved parking spaces. All of the parking spaces located within the podium parking area of the 161 Building (not less than ten (10) spaces) shall be reserved parking spaces for Tenant's use.

14. **Generator**. The 161 Building will have a "Generator" as provided in Section 6.5 of the Lease, and the terms of such Section 6.5 shall apply with respect to the Substitute Premises.

15. **Chemical Storage Room**. The 161 Building will have a "Chemical Storage Room" as provided in Section 6.6 of the Lease, and the terms of such Section 6.6 shall apply with respect to the Substitute Premises.

16. **Brokers**. Landlord and Tenant hereby warrant to each other that they have had no dealings with any real estate broker or agent in connection with the negotiation of this First Amendment other than CBRE, Inc., representing Landlord, and Newmark Cornish & Carey representing Tenant (collectively, the "**Brokers**"), and that they know of no other real estate broker or agent who is entitled to a commission in connection with this First Amendment. Each party agrees to indemnify and defend the other party against and hold the other party harmless from any and all claims, demands, losses, liabilities, lawsuits, judgments, and costs and expenses (including, without limitation, reasonable attorneys' fees) with respect to any leasing commission or equivalent compensation alleged to be owing on account of the indemnifying party's dealings with any real estate broker or agent, other than the Brokers occurring by, through or under the indemnifying party. The terms of this Section shall survive the expiration or earlier termination of this First Amendment.

17. **Conflict; No Further Modification**. In the event of any conflict between the terms and provisions of the Lease and the terms and provisions of this First Amendment, the terms and provisions of this First Amendment shall prevail. Except as specifically set forth in this First Amendment, all of the terms and provisions of the Lease shall remain unmodified and in full force and effect.

18. **No Deed of Trust**. Landlord hereby represents and warrants to Tenant that the Project is not currently subject to any ground lease, or to the lien of any mortgage or deed of trust.

19. **Signage**. The provisions of Section 23 of the Lease shall apply after the Substitute Premises Commencement Date to the Substitute Premises and the 161 Building, except that Tenant shall also be entitled, subject to the terms of Section 23.1, to signage on the 161 Building, including the entry thereof and multiple building top signs (including on the North and South sides of the 161 Building) in compliance with the Master Project signage program.

20. **Notice Address**. After the Substitute Premises Commencement Date, notice to Tenant shall be sent to the Substitute Premises, Attn: Chief Financial Officer.

21. **Construction Period**. The provisions of Sections 10.7 and 10.8 of the Lease shall apply to the Substitute Premises and Landlord's construction of Landlord's Work as described in Exhibit B, with the "Construction Period" to mean the period from the Effective Date to the date Landlord completes construction of Landlord's Work (including any Additional Base Building Items), and Common Areas, regardless of any Tenant Delay and without regard to the effect of any provisions of the Lease, as amended by this First Amendment, pursuant to which the Substitute Premises are deemed Ready for Occupancy in advance of its actual occurrence.

22. **Permitted Use**. After the Substitute Premises Commencement Date, the Permitted Use shall also include small scale GMP manufacturing.

23. **Hazardous Materials**. Tenant may use in the Substitute Premises the Hazardous Materials listed on the updated Environmental Questionnaire provided to Landlord in connection with this First Amendment.

24. **Tenant's Property**. Tenant's Property, as defined in Section 8.5 of the Lease, shall also include any audio-visual equipment, including monitors, installed by Tenant at Tenant's expense.

IN WITNESS WHEREOF, this First Amendment has been executed as of the day and year first above written.

"**LANDLORD**"

HCP OYSTER POINT III LLC,
a Delaware limited liability company

By: /s/ Scott Bohn

Name: Scott Bohn

Its: Vice President

"**TENANT**"

DENALI THERAPEUTICS INC.,
a Delaware corporation

By: /s/ Steve Krognes

Name: Steve Krognes

Its: Chief Financial Officer

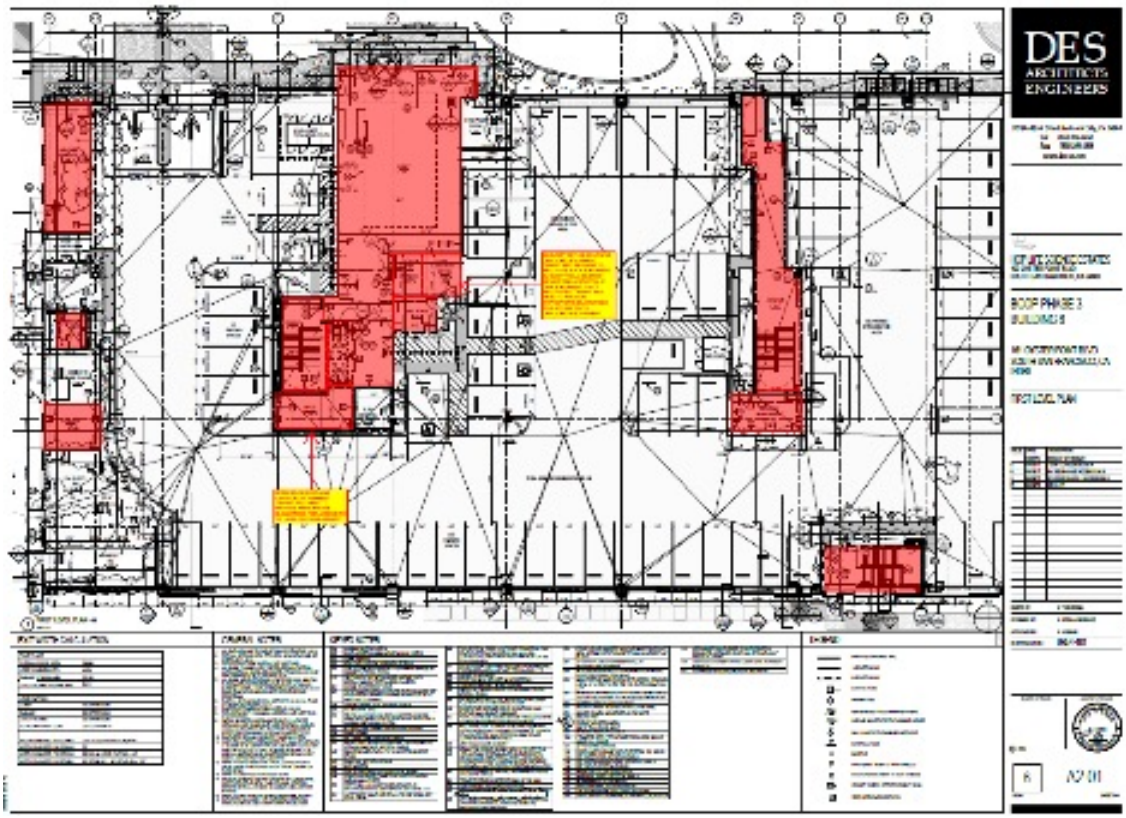
By: /s/ Steve Krognes

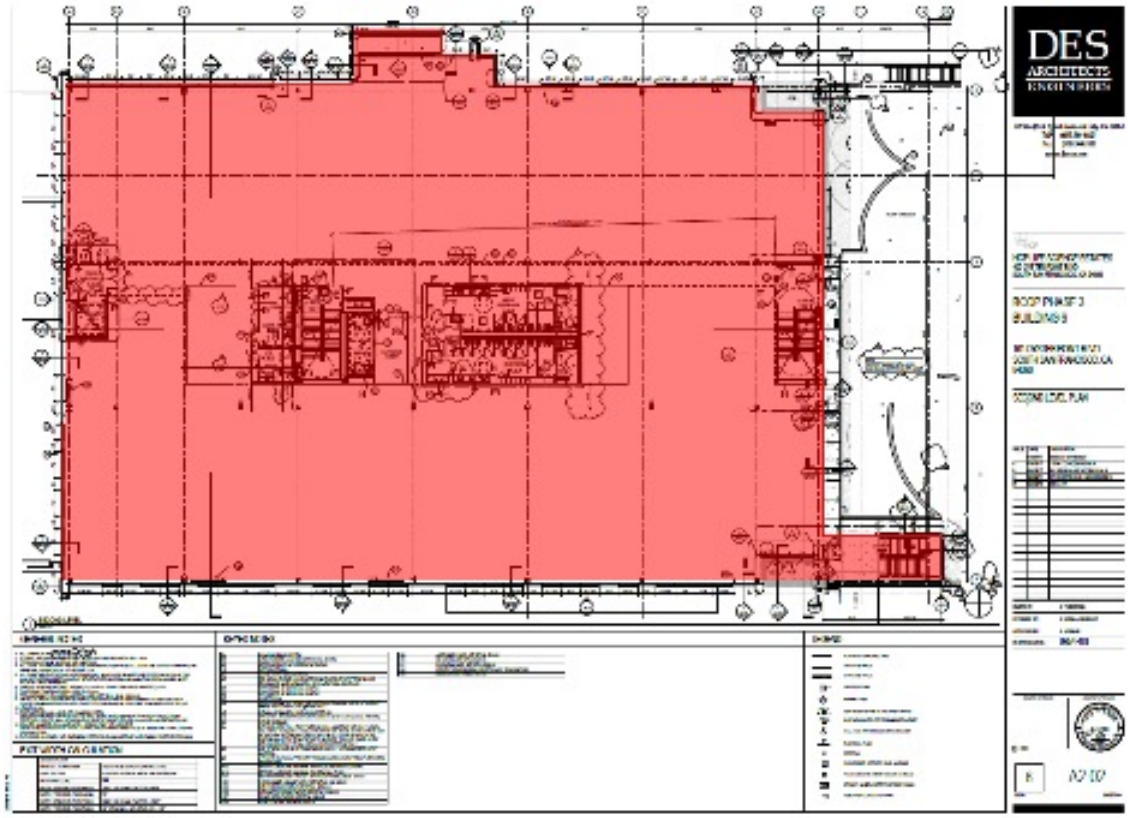
Name: Steve Krognes

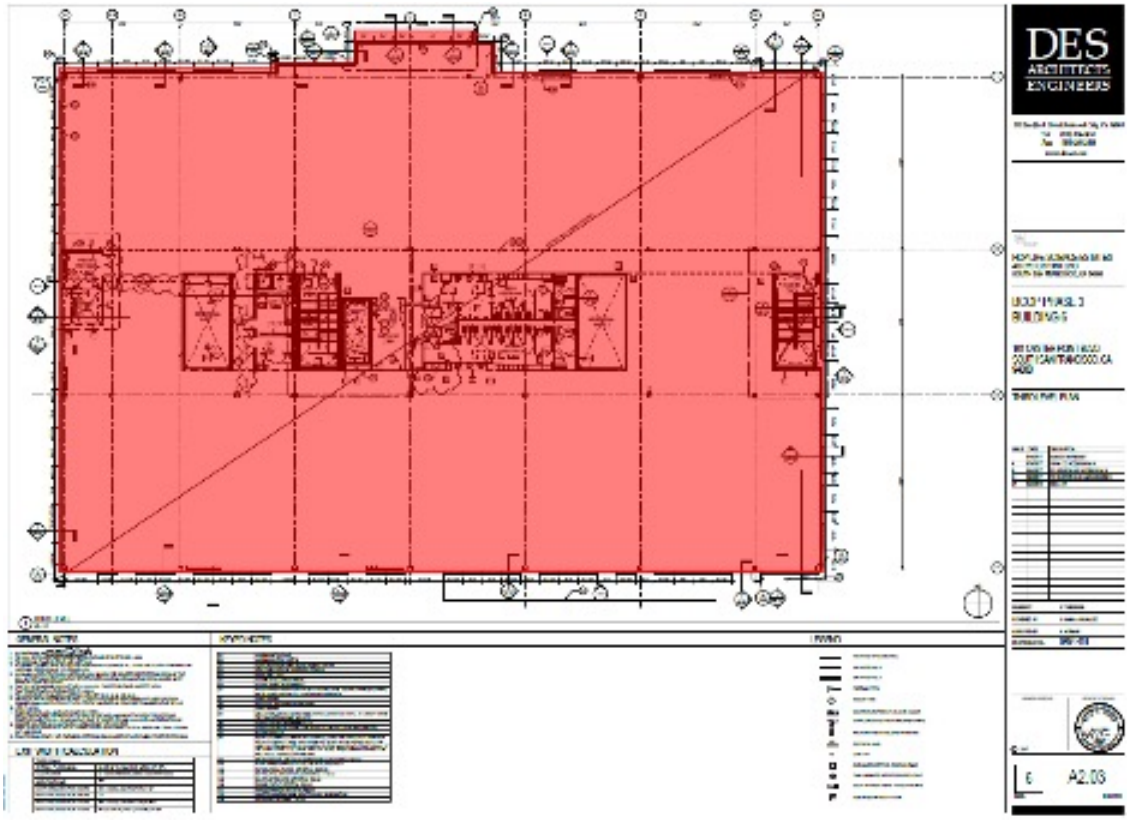
Its: Chief Financial Officer

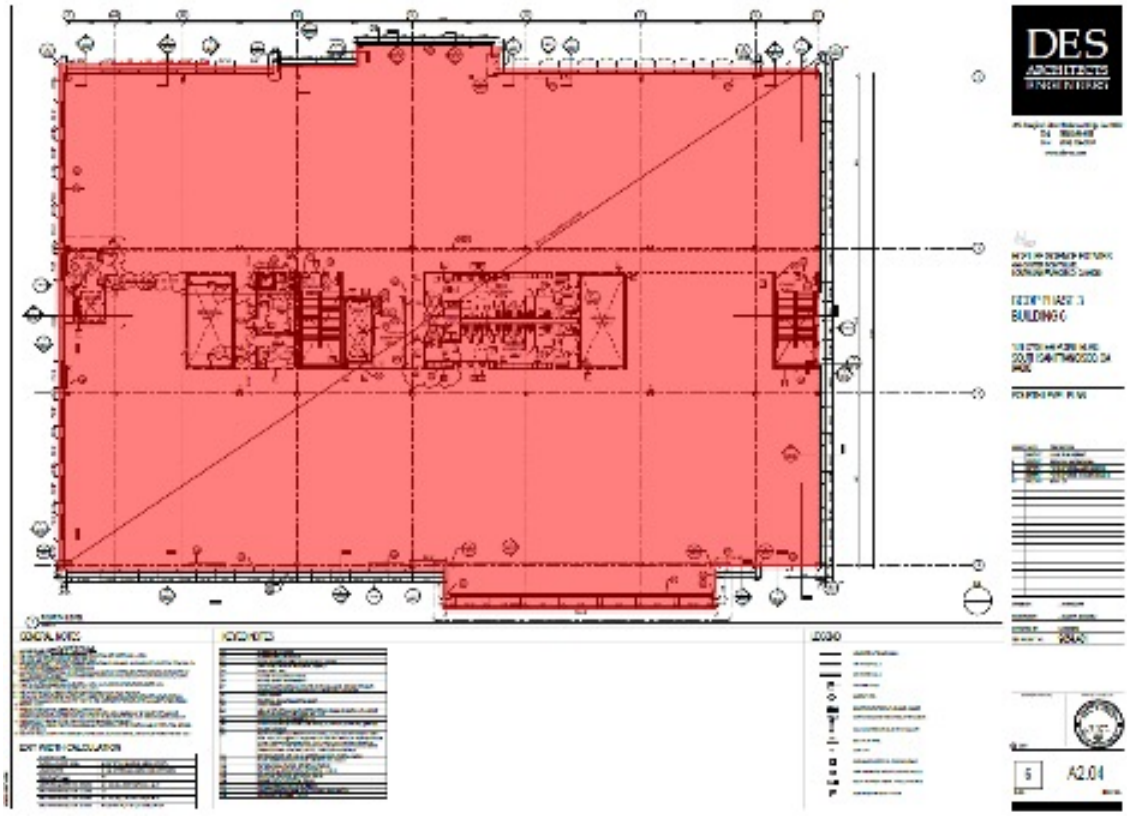
EXHIBIT A

OUTLINE OF SUBSTITUTE PREMISES




DES
ARCHITECTS


DES
ARCHITECTS
ENGINEERS
A2.03


DES
ARCHITECTS
BUILDING C
A2.04

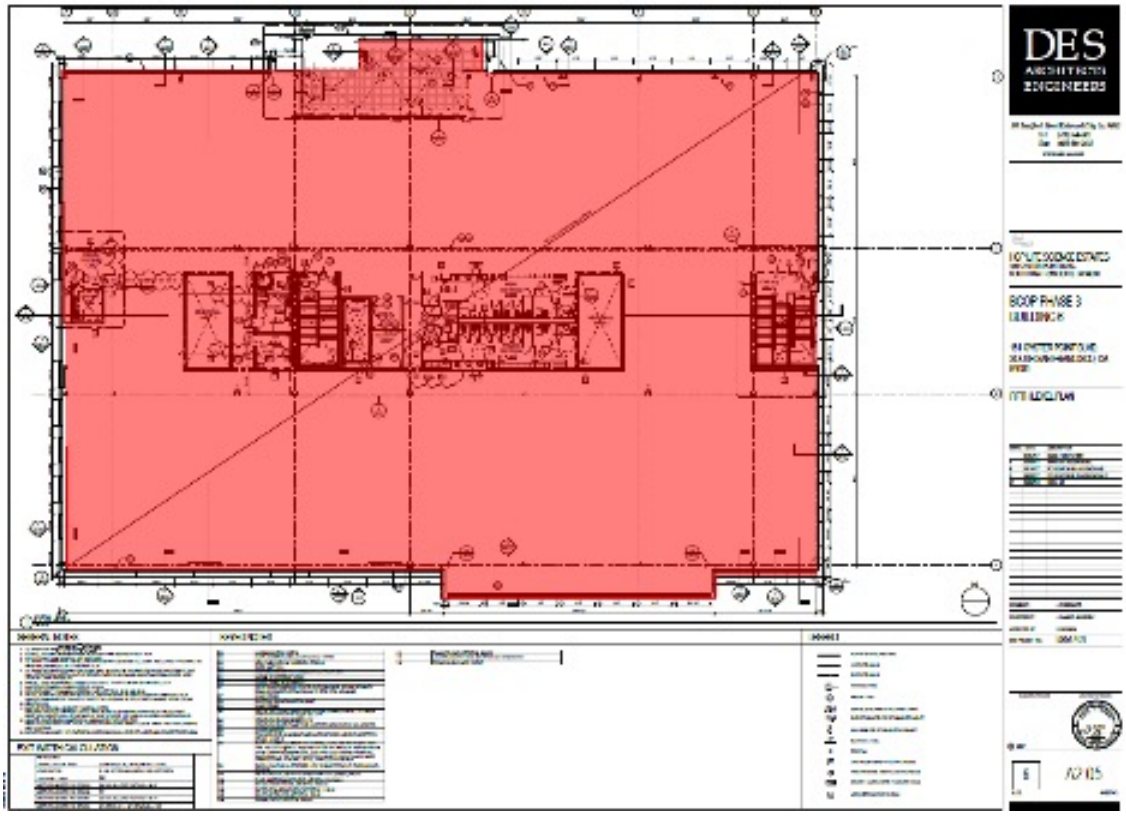

DES
ARCHITECTS
ENGINEERS

EXHIBIT B

TENANT WORK LETTER

1. **Defined Terms**. As used in this Tenant Work Letter, the following capitalized terms have the following meanings:

(a) **Approved TI Plans**: Plans and specifications prepared by the applicable Architect for the Tenant Improvements and approved by Landlord and Tenant in accordance with Paragraph 2 of this Tenant Work Letter, subject to further modification from time to time to the extent provided in and in accordance with such Paragraph 2.

(b) **Architect**: DGA, or any other architect selected and engaged by Landlord and approved by Tenant in their reasonable discretion, with respect to any Tenant Improvements which Landlord is to cause to be constructed pursuant to this Tenant Work Letter.

(c) **Tenant Change Request**: See definition in Paragraph 2(d)(ii) hereof.

(d) **Final TI Working Drawings**: See definition in Paragraph 2(a) hereof.

(e) **General Contractor**: Landmark Builders or another general contractor reasonably selected by Landlord and in any case approved by Tenant as a result of competitive bidding of the cost of the Tenant Improvements with respect to Landlord's TI Work. Tenant shall have no right to direct or control such General Contractor.

(f) **Landlord's TI Work**: Any Tenant Improvements which Landlord is to construct or install pursuant to this Tenant Work Letter or by mutual agreement of Landlord and Tenant from time to time.

(g) **Project Manager**. Project Management Advisors, Inc., or any other project manager designated by Landlord in its reasonable discretion from time to time to act in a supervisory, oversight, project management or other similar capacity on behalf of Landlord in connection with the design and/or construction of the Tenant Improvements.

(h) **Punch List Work**: Minor corrections of construction or decoration details, and minor mechanical adjustments, that are required in order to cause any applicable portion of the Tenant Improvements as constructed to conform to the Approved TI Plans in all material respects and that do not materially interfere with Tenant's use or occupancy of the Building and the Premises.

(i) **Substantial Completion Certificate**: See definition in Paragraph 3(a) hereof.

(j) **Tenant Delay**: Any of the following types of delay in the completion of construction of Landlord's TI Work (but in each instance, only to the extent that any of the following has actually and proximately caused substantial completion of Landlord's TI Work to be delayed):

(1) Any delay resulting from Tenant's failure to furnish, in a timely manner, information reasonably requested by Landlord or by Landlord's Project Manager in connection with the design or construction of Landlord's TI Work, or from Tenant's failure to approve in a timely manner any matters requiring approval by Tenant;

(2) Any delay resulting from Tenant Change Requests initiated by Tenant, including any delay resulting from the need to revise any drawings or obtain further governmental approvals as a result of any such Tenant Change Request;

(3) Any delay caused by Tenant (or Tenant's contractors, agents or employees) materially interfering with the performance of Landlord's TI Work, provided that Landlord shall have given Tenant prompt notice of such material interference and, before the first time a Tenant Delay is deemed to have occurred as a result of such delay, such interference has continued for more than twenty-four (24) hours after Tenant’s receipt of such notice.

(k) **Tenant Improvements**: The improvements to or within the Building shown on the Approved TI Plans from time to time and to be constructed by Landlord pursuant to the First Amendment and this Tenant Work Letter. The term "Tenant Improvements" does not include the improvements existing in the Building and Premises at the date of execution of the First Amendment.

(l) **Unavoidable Delays**: Delays due to acts of God, acts of public agencies, labor disputes, strikes, fires, freight embargoes, inability (despite the exercise of due diligence) to obtain supplies, materials, fuels or permits, or other causes or contingencies (excluding financial inability) beyond the reasonable control of Landlord or Tenant, as applicable. Landlord shall use commercially reasonable efforts to provide Tenant with prompt notice of any Unavoidable Delays.

(m) Capitalized terms not otherwise defined in this Tenant Work Letter shall have the definitions set forth in the Lease; provided, however, all references to Premises and Building shall mean the Substitute Premises and the 161 Building, respectively, and all references to the Lease shall mean the Lease, as modified by the First Amendment.

2. **Plans and Construction**. Landlord and Tenant shall comply with the procedures set forth in this Paragraph 2 in preparing, delivering and approving matters relating to the Tenant Improvements. Tenant acknowledges that the Tenant Improvements will be subject to the specifications set forth on Schedule 6 to this Exhibit B.

(a) Approved Plans and Working Drawings for Tenant Improvements. Tenant shall promptly and diligently work with the Architect to cause to be prepared and delivered to Landlord for approval (which approval shall not be unreasonably withheld, conditioned or delayed by Landlord) proposed schematic plans and outline specifications for the Tenant Improvements. Following mutual approval of such proposed schematic plans and outline specifications by Landlord and by Tenant (as so approved, the “**Approved Schematic Plans**”), Tenant shall then work with the Architect to cause to be prepared, promptly and diligently (assuming timely delivery by Landlord of any information and decisions required to be furnished or made by Landlord in order to permit preparation of final working drawings, all of which information and decisions Landlord will deliver

promptly and with reasonable diligence), and delivered to Landlord for approval (which approval shall not be unreasonably withheld, conditioned or delayed by Landlord) final detailed working drawings and specifications for the Tenant Improvements, including (without limitation) any applicable life safety, mechanical, electrical and plumbing working drawings and final architectural drawings (collectively, "**Final TI Working Drawings**"), which Final TI Working Drawings shall substantially conform to the Approved Schematic Plans. Upon receipt from Tenant of proposed schematic plans and outline specifications, proposed Final TI Working Drawings, any other plans and specifications, or any revisions or resubmittals of any of the foregoing, as applicable, Landlord shall promptly and diligently (and in all events within 10 business days after receipt in the case of an initial submittal of schematic plans and outline specifications or proposed Final TI Working Drawings, and within 7 business days after receipt in the case of any other plans and specifications or any revisions or resubmittals of any of the foregoing) either approve such proposed schematic plans and outline specifications or proposed Final TI Working Drawings, as applicable, or set forth in writing with particularity any changes necessary to bring the aspects of such proposed schematic plans and outline specifications or proposed Final TI Working Drawings into a form which will be reasonably acceptable to Landlord. Upon approval of the Final TI Working Drawings by Landlord and Tenant, the Final TI Working Drawings shall constitute the **"Approved TI Plans,"** superseding (to the extent of any inconsistencies) any inconsistent features of the previously existing Approved Schematic Plans. Tenant shall respond to any request for information or approval of plans or drawings from Landlord or Architect within five (5) business days. Tenant acknowledges that the Tenant Improvements will include the items set forth on Schedule 2 to this Exhibit B, in order to allow the Premises to achieve a LEED "Silver" certification level. Subject to its review of more detailed plans, Landlord hereby approves of the improvements shown on the preliminary plans attached hereto as Schedule 5.

(b) Cost of Improvements. "**Cost of Improvement**" shall mean, with respect to any item or component for which a cost must be determined in order to allocate such cost, or an increase in such cost, to Tenant pursuant to this Tenant Work Letter, the sum of the following (unless otherwise agreed in writing by Landlord and Tenant with respect to any specific item or component or any category of items or components): (i) all sums paid to contractors or subcontractors for labor and materials furnished in connection with construction of such item or component; (ii) all costs, expenses, payments, fees and charges (other than penalties) paid to or at the direction of any city, county or other governmental or quasi-governmental authority or agency which are required to be paid in order to obtain all necessary governmental permits, licenses, inspections and approvals relating to construction of such item or component; (iii) engineering and architectural fees for services rendered in connection with the design and construction of such item or component (including, but not limited to, the Architect for such item or component and an electrical engineer, mechanical engineer, structural engineer and civil engineer, if applicable); (iv) sales and use taxes; (v) testing and inspection costs; (vi) the cost of power, water and other utility facilities and the cost of collection and removal of debris required in connection with construction of such item or component; (vii) costs for builder's risk insurance; and (viii) all other "hard" and "soft" costs incurred in the construction of such item or component in accordance with the Approved TI Plans (if applicable) and this Tenant Work Letter; provided that the Cost of Improvements shall not include any internal or third-party costs incurred by Landlord except as provided in Section 2(e).

(c) **Construction of Landlord's TI Work**. Following completion of the Approved TI Plans, Landlord shall apply for and use reasonable efforts to obtain the necessary permits and approvals to allow construction of all Tenant Improvements. Upon receipt of such permits and approvals, Landlord shall, at Tenant's expense (subject to Landlord's payment of the Tenant Improvement Allowance), construct and complete the Tenant Improvements substantially in accordance with the Approved TI Plans, subject to Unavoidable Delays and Tenant Delays (if any). Such construction of the Tenant Improvements and Landlord's Work shall be performed in a neat, good and workmanlike manner, free of defects, using new materials and equipment of good quality, and shall materially conform to all applicable laws, rules, regulations, codes, ordinances, requirements, covenants, conditions and restrictions applicable thereto in force at the time such work is completed. Landlord shall cause Landmark Builders to bid for construction of the Tenant Improvements. All bids will be opened together with Landlord selecting the general contractor to construct the Tenant Improvements, subject to the reasonable approval of Tenant. Tenant shall also have the right to review all subcontractor competitive pricing budgets and approve all subcontractors engaged by the General Contractor.

(d) **Changes**.

(i) If Landlord determines at any time that changes in the Final TI Working Drawings or in any other aspect of the Approved TI Plans relating to any item of Landlord's TI Work are required as a result of applicable law or governmental requirements, or are required at the insistence of any other third party whose approval may be required with respect to the Tenant Improvements, or are required as a result of unanticipated conditions encountered in the course of construction, then Landlord shall promptly (A) advise Tenant of such circumstances and (B) at Tenant's sole cost and expense, subject to Landlord's payment of the Tenant Improvement Allowance, cause revised Final TI Working Drawings to be prepared by the Architect and submitted to Tenant, for Tenant's approval, which shall not be unreasonably withheld. Failure of Tenant to deliver to Landlord written notice of disapproval and specification of such required changes on or before any deadline reasonably specified by Landlord (which shall not be less than three (3) business days after delivery thereof to Tenant) shall constitute and be deemed to be a Tenant Delay to the extent Landlord is delayed in completing Landlord's TI Work.

(ii) If Tenant at any time desires any changes, alterations or additions to the Final TI Working Drawings, or modifications to Landlord's base building delivery conditions, Tenant shall submit a detailed written request to Landlord specifying such changes, alterations or additions (a "**Tenant Change Request**"). Upon receipt of any such request, Landlord shall promptly notify Tenant of (A) whether the matters proposed in the Tenant Change Request are approved by Landlord (which approval shall not be unreasonably withheld, conditioned or delayed by Landlord), (B) Landlord's estimate of the number of days of delay, if any, which shall be caused in the construction of the Tenant Improvements by such Tenant Change Request if implemented (including, without limitation, delays due to the need to obtain any revised plans or drawings and any governmental approvals), and (C) Landlord's estimate of the increase, if any, which shall occur in the cost of design, permitting, project management and construction of the Tenant Improvements affected by

such Tenant Change Request if such Tenant Change Request is implemented (including, but not limited to, any costs of compliance with laws or governmental regulations that become applicable because of the implementation of the Tenant Change Request). If Landlord approves the Tenant Change Request and Tenant notifies Landlord in writing, within three (3) business days after receipt of such notice from Landlord, of Tenant's approval of the Tenant Change Request (including the estimated delays and cost increases, if any, described in Landlord's notice), then Landlord shall cause such Tenant Change Request to be implemented and Tenant shall be responsible for all actual costs or cost increases resulting from or attributable to the implementation of the Tenant Change Request, and any delays resulting therefrom shall be deemed to be a Tenant Delay (subject to Landlord's payment of the Tenant Improvement Allowance). If Tenant fails to notify Landlord in writing of Tenant's approval of such Tenant Change Request within said three (3) business day period, then such Tenant Change Request shall be deemed to be withdrawn and shall be of no further effect.

(e) **Project Management**. Unless and until revoked by Landlord by written notice delivered to Tenant, Landlord hereby (i) delegates to Project Manager the authority to exercise all approval rights, supervisory rights and other rights or powers of Landlord under this Tenant Work Letter with respect to the design and construction of the Tenant Improvements, and (ii) requests that Tenant work with Project Manager with respect to any logistical or other coordination matters arising in the course of construction of the Tenant Improvements, including monitoring Tenant's compliance with its obligations under this Tenant Work Letter and under the Lease with respect to the design and construction of the Tenant Improvements. Tenant acknowledges the foregoing delegation and request, and agrees to cooperate reasonably with Project Manager as Landlord's representative pursuant to such delegation and request. Fees and charges of Project Manager for such services shall be at Tenant's sole expense, subject to Landlord's payment of the Tenant Improvement Allowance. Such fees shall be equal to 2.65% of all funds the Tenant Improvement Allowance or Additional Tenant Improvement Allowance used in connection with the construction of the Tenant Improvements, and 2% of any additional funds provided by Tenant for such construction.

3. **Completion**.

(a) When Landlord receives written certification from Architect that construction of all of the Tenant Improvements and Landlord's Work has been completed in accordance with the Approved TI Plans and Section 3(e) below (except for Punch List Work), Landlord shall prepare and deliver to Tenant a certificate signed by Landlord, Architect and General Contractor (the "**Substantial Completion Certificate**") (i) certifying that the construction of the Tenant Improvements and Landlord's Work has been substantially completed in a good and workmanlike manner in accordance with the Approved TI Plans and Section 3(e) below in all material respects, subject only to completion of Punch List Work, and specifying the date of that completion, and (ii) certifying that the Tenant Improvements and Landlord's Work comply in all material respects with all laws, rules, regulations, codes, ordinances, requirements, covenants, conditions and restrictions applicable thereto at the time of such delivery. Upon receipt by Tenant of the Substantial Completion Certificate and tender of possession of all of the Premises by Landlord to Tenant, and receipt of any certificate of occupancy or its legal equivalent, or other required sign-

offs from any applicable governmental authority, allowing the legal occupancy of the Premises, the Tenant Improvements will be deemed delivered to Tenant and "Ready for Occupancy" for all purposes of the First Amendment (subject to Landlord's continuing obligations with respect to any Punch List Work, and to any other express obligations of Landlord under the Lease or this Tenant Work Letter with respect to such Tenant Improvements).

(b) Immediately prior to delivery of the Substantial Completion Certificate for the Tenant Improvements and Landlord's Work, Project Manager or other representatives of Landlord shall conduct one or more "walkthroughs" of the Building with Tenant and Tenant's representatives, to identify any items of Punch List Work that may require correction and to prepare a joint punch list reflecting any such items, following which Landlord shall diligently complete the Punch List Work reflected in such joint punch list. The Punch List Work shall be attached to the Substantial Completion Certificate, and shall not include damage caused by Tenant or any of Tenant's agents in connection with any work performed by Tenant in the Premises, or required as a result of Tenant's move-in to the Premises. At any time within thirty (30) days after delivery of such Substantial Completion Certificate, Tenant shall be entitled to submit one or more lists to Landlord supplementing such joint punch list by specifying any additional items of Punch List Work to be performed on the applicable Tenant Improvements and Landlord's Work, and upon receipt of such list(s), Landlord shall diligently complete such additional Punch List Work. Promptly after Landlord provides Tenant with the Substantial Completion Certificate and completes all applicable Punch List Work for the Building, Landlord shall cause the recordation of a Notice of Completion (as defined in the California Civil Code) with respect to the Tenant Improvements.

(c) All construction, product and equipment warranties and guaranties obtained by Landlord with respect to the Tenant Improvements and Landlord's Work in the Premises shall, to the extent reasonably obtainable, include a provision that such warranties and guaranties shall also run to the benefit of Tenant, and Landlord shall cooperate with Tenant in a commercially reasonable manner to assist in enforcing all such warranties and guaranties for the benefit of Tenant.

(d) Notwithstanding any other provisions of this Tenant Work Letter or of the Lease, if Landlord is delayed in substantially completing any of the Tenant Improvements as a result of any Tenant Delay, then notwithstanding any other provision of the Lease to the contrary, the Premises shall be deemed to have been Ready for Occupancy on the date the Premises would have been Ready for Occupancy absent such Tenant Delay.

(e) Notwithstanding any other provisions of this Tenant Work Letter or of the Lease or First Amendment, Landlord shall be responsible, at Landlord's sole cost and expense, and without deduction from the Tenant Improvement Allowance, to construct and deliver the Base Building and "Warm Shell" components of the Premises (“**Landlord’s Work**”), which shall consist of the items set forth on Schedule 1 to this Exhibit B (the "**Warm Shell Schedule**").

(f) **Construction of Additional Base Building Items**. To the extent that the Final TI Working Drawings contain any structural items, or items which would not reasonably categorized as "normal tenant improvements" under applicable GAAP standards (the "**Additional Base Building Items**"), then such Additional Base Building Items shall not be constructed as a part of the Landlord's TI Work or the Tenant Improvements, but instead will be constructed by Landlord

as a part of the Landlord's Work. The cost of construction of the Additional Base Building Items (the "**Additional Base Building Costs**") shall be borne by Landlord, provided that the amount of the Tenant Improvement Allowance shall be reduced by the amount of the Additional Base Building Costs. Landlord shall have the right to disapprove any aspect of the Final TI Working Drawing that would result in Additional Base Building Costs in excess of the then remaining Tenant Improvement Allowance, so that, while the Tenant Improvement Allowance may be reduced, under no circumstances would Tenant be required to pay for any Additional Base Building Items with its own funds.

4. **Payment of Costs**.

(a) **Tenant Improvement Allowance**. Subject to any restrictions, conditions or limitations expressly set forth in this Tenant Work Letter or in the Lease or as otherwise expressly provided by mutual written agreement of Landlord and Tenant, the cost of construction of the Tenant Improvements shall be paid or reimbursed by Landlord up to a maximum amount equal to $145 per RSF of the Premises (i.e. $21,462,900.00) (the "**Tenant Improvement Allowance**"), which amount is being made available by Landlord to be applied towards the Cost of Improvements for the construction of the Tenant Improvements in the Premises. Tenant shall be responsible, at its sole cost and expense, for payment of the entire Cost of Improvements of the Tenant Improvements in excess of the Tenant Improvement Allowance, including (but not limited to) any costs or cost increases incurred as a result of delays (unless caused by Landlord), governmental requirements or unanticipated conditions (unless caused by Landlord), and for payment of any and all costs and expenses relating to any alterations, additions, improvements, furniture, furnishings, equipment, fixtures and personal property items which are not eligible for application of Tenant Improvement Allowance funds under the restrictions expressly set forth below in this paragraph, but Tenant shall be entitled to use or apply the entire Tenant Improvement Allowance toward the Cost of Improvements of the Tenant Improvements (subject to any applicable retentions, restrictions, conditions, limitations, reductions or charges set forth in the Lease or in this Tenant Work Letter) prior to expending any of Tenant’s own funds for the Tenant Improvements. The funding of the Tenant Improvement Allowance shall be made on a monthly basis or at other convenient intervals mutually approved by Landlord and Tenant and in all other respects shall be based on such commercially reasonable disbursement conditions and procedures as Landlord, Project Manager and Landlord’s lender (if any) may reasonably prescribe. Notwithstanding the foregoing provisions, under no circumstances shall the Tenant Improvement Allowance or any portion thereof be used or useable by Tenant for any moving or relocation expenses of Tenant, or for any Cost of Improvement (or any other cost or expense) associated with any moveable furniture or trade fixtures, personal property or any other item or element which, under the applicable provisions of the Lease, will not become Landlord’s property and remain with the Building upon expiration or termination of the Lease. Notwithstanding anything to the contrary herein, the Tenant Improvements shall not include (and Landlord shall be solely responsible for and the Tenant Improvement Allowance shall not be used for) the following: (a) costs incurred due to the presence of any Hazardous Materials in the Premises, if any, but with respect to removal and remediation of any such Hazardous Materials, only to the extent such removal or remediation is required by Applicable Laws enforced as of the date of this First Amendment for improvements in the Premises generally (as opposed to the specific Tenant Improvements) and to the extent the same required in order to allow Tenant to obtain a

certificate of occupancy or its legal equivalent, for the Premises for the Permitted Use assuming a normal and customary office occupancy density; (b) costs to bring the Project into compliance with Applicable Laws to the extent required in order to allow Tenant to obtain a certificate of occupancy or its legal equivalent, for the Premises for the Permitted Use assuming a normal and customary office occupancy density; (c) construction costs in excess of the final contract amount in the contract with the General Contractor, as approved by Tenant (not to be unreasonably withheld), except for increases set forth in approved change orders; and (d) wages, labor and overhead for overtime and premium time unless approved by Tenant (which approval shall not be unreasonably withheld, conditioned or delayed);.

(b) **Additional TI Allowance**. In addition to the Tenant Improvement Allowance, Tenant shall have the right, by written notice to Landlord given on or before December 31, 2019, to use up to $30.00 per RSF of the Premises (i.e., up to $4,440,600.00) (the "**Additional TI Allowance**") towards the payment of the costs of the Tenant Improvement Allowance Items. In the event Tenant exercises its right to use all or any portion of the Additional TI Allowance, Tenant shall be required to pay Landlord, commencing on the date the Tenant Improvements are completed (the "**Additional Payment Commencement Date**"), the "Additional TI Allowance Payment," as that term is defined below, in consideration of Landlord provision of the Additional TI Allowance. The "**Additional TI Allowance Payment**" shall be determined as the missing component of an annuity, which annuity shall have (i) the amount of the Additional TI Allowance utilized by Tenant as the present value amount, (ii) a number equal to the number of full calendar months then remaining in the Substitute Premises Term as the number of payments, (iii) a monthly interest factor equal to seventy-five one-hundredths percent (0.75%), which is equal to nine percent (9%) divided by twelve (12) months per year, and (iv) the Additional TI Allowance Payment as the missing component of the annuity, and shall not be subject to annual escalations. Following the calculation of the Additional TI Allowance Payment, Landlord and Tenant will enter into a lease amendment in the form of **Exhibit G** attached to the Lease, to confirm the amount thereof.

5. **No Agency**. Nothing contained in this Tenant Work Letter shall make or constitute Tenant as the agent of Landlord.

6. **Tenant Access**. Provided that Tenant and its agents do not interfere with Contactor's work in the Building and the Premises (including by the use of non-union vendors without prior coordination with Landlord), Contractor shall allow Tenant access to the Premises at least sixty (60) days before the Premises are Ready for Occupancy without payment of Rent for the purpose of Tenant installing equipment or fixtures (including Tenant's data and telephone equipment) in the Premises and preparing the Premises for occupancy. Prior to Tenant's entry into the Premises as permitted by the terms of this Section 6, Tenant shall submit a schedule to Landlord and Contractor, for their approval, which schedule shall detail the timing and purpose of Tenant's entry. Tenant shall hold Landlord harmless from and indemnify, protect and defend Landlord against any loss or damage to the Building or Premises and against injury to any persons caused by Tenant's actions pursuant to this Section 6.

7. **Miscellaneous**. All references in this Tenant Work Letter to a number of days shall be construed to refer to calendar days, unless otherwise specified herein. In all instances where

Landlord's or Tenant's approval is required, if no written notice of disapproval is given within the applicable time period, at the end of that period Landlord or Tenant shall be deemed to have given approval (unless the provision requiring Landlord's or Tenant's approval expressly states that non-response is deemed to be a disapproval or withdrawal of the pending action or request, in which event such express statement shall be controlling over the general statement set forth in this sentence) and the next succeeding time period shall commence. If any item requiring approval is disapproved by Landlord or Tenant (as applicable) in a timely manner, the procedure for preparation of that item and approval shall be repeated. Landlord hereby acknowledges that Tenant shall not be required to restore the initial Tenant Improvements constructed in the Premises pursuant to the terms of this Tenant Work Letter upon the termination of the Lease.

8 **Time Deadlines**. Tenant shall use commercially reasonable, good faith, efforts and all due diligence to cooperate with the Architect, General Contractor and Landlord to complete all phases of the construction drawings set forth in this Tenant Work Letter and the permitting process and to receive the permits as soon as possible after the execution of the. The applicable dates for approval of items, plans and drawings as described in this Tenant Work Letter are set forth and further elaborated upon in Schedule 3 to this Exhibit B attached hereto (the "**Time Deadlines**"), attached hereto. Tenant agrees to utilize commercially reasonable efforts to comply with the Time Deadlines.

9 **Rooftop Space**. Tenant hereby acknowledges that to the extent either (i) any portion of the Tenant Improvements, or (ii) any of Tenant's equipment installed in the Premises, requires a portion of the roof to be utilized by Tenant, that Tenant shall only be permitted to utilize that certain portion of the roof designated as "Zones 1 – 5" on Schedule 4 to this Exhibit B (the "**Rooftop Space**").

SCHEDULE 1 TO EXHIBIT B

BASE BUILDING "WARM SHELL" DELIVERY CONDITION

The Cove at Oyster Point
Building 6
161 Oyster Point Boulevard
South San Francisco, CA 94080
Warm Shell Landlord Delivery Condition

DESCRIPTION
SITEWORK
1. Exterior hardscape and landscape, including site lighting, perimeter sidewalks, street curbs, miscellaneous site furnishings, and bio-retention basins
2. Surface parking lot
3. Bike lockers located in campus site and podium parking garage for pro rata allocation amongst Tenants
4. Campus electrical vehicle charging stations for pro rata allocation amongst Tenants
5. Exterior amenities space including all hardscape and landscape, lighting, and recreational infrastructure (volleyball/basketball sport court, bocce ball, trellis, 2nd floor roof terrace above Building 6 garage)
6. Bus stop wind screens for local commuter shuttle service
7. Service yard foundation, structure, covered enclosure, and waterproofing for trash containers and dedicated nitrogen storage area for allocation amongst tenants in multiple buildings subject to landlord review and approval
8. Foundation and enclosure for Landlord provided diesel powered emergency generator
9. Loading dock with recessed shipping/receiving area with two (2) hydraulic dock levelers shared between Building 6 and 7
STRUCTURE
1. Pile supported structural slab-on-grade foundation system consisting of steel-reinforced concrete auger-cast piles, pile caps, and horizontal grade beams
2. Steel superstructure consisting of steel columns, girders, beams, and concrete slab on composite metal deck, with live load capacity of 125 psf (reducible)
3. Type IB construction, code required primary structural fireproofing
4. Slab edge fire safing

DESCRIPTION
5. Lateral seismic system utilizing buckling-restrained braced frames. Importance factor is 1.0
6. Roof deck framing with live load capacity of 20 psf
7. Mechanical platform and roof penthouse with live load capacity of 50 psf
8. Roof screen
9. Floor to floor height of 17', all floors (podium at 14')
10. Framed openings for Base Building utility risers
11. Stairs and stair enclosures per code requirements, including enclosure doors, handrails, and guardrails. Roof penthouse access for one (1) set of stairs
12. Window washing davit bases and arms
13. Miscellaneous metals items and/or concrete pads for Base Building equipment
ROOFING
1. 60 MIL single-ply thermoplastic polyolefin (TPO) white or gray roof membrane
2. Rigid insulation, flashing, and sealants
3. Roofing penetrations for Base Building equipment/systems
4. Walkway pads along roof perimeter, outside of screened area
EXTERIOR
1. Non load-bearing glazed aluminum curtain wall and glass fiber reinforced concrete (GFRC) panel building enclosure system
2. Building entrances and openings
3. Freight elevator access in Podium, adjacent to Service Yard
4. Service Yard overhead door at loading dock area shared between Building 6 and 7
BASE BUILDING – FIRST FLOOR
1. Podium parking area with card reader controlled lift gate and roll-up doors
2. Build-out of Main Lobby including, but not limited to: storage room, fire rated walls, floor base, stone flooring, ceiling light fixtures & wall sconces, wall panels, and hard lid ceiling as further detailed in the base building DES drawings dated 3/23/18 sheets A4.03, A4.04, and A4.05 (See Exhibit B Schedule 7: Lobby Finish Plans)
3. One (1) B-Occupancy Chemical Storage Rooms with 1-hour fire rated assembly, depressed pit (18"), and 100% outside air ventilation 1,850 cfm total for allocation amongst tenants per lease agreement.
4. Main Electrical Room
5. Emergency Electrical Room
6. Domestic Pump Room

DESCRIPTION
7. Fire Booster Pump Room
8. Elevator Control Room
9. Telecommunications Main Point of Entry (MPOE) Room
COMMON AREAS
1. Service Yard/Loading Dock Area, including space for trash enclosure, nitrogen storage (for nitrogen use only; allocation subject to Landlord review approval), and generator enclosure shared between Building 6 and 7
2. Amenities Space including food service, fitness center, and recreational area (located in Building 3)
3. Roof Terrace space (located above Building 6 podium parking)
4. Stair enclosures painted at all building levels
ELEVATORS
1. Two (2) passenger elevators; 3,500 lbs., 350 fpm
2. One (1) freight elevator; 5,000 lbs., 200 fpm
3. Recessed elevator pits for three (3) elevators
4. Seismic restraints inside freight elevator
5. EPS Express Priority Service at freight elevator
TENANT AREAS
1. Restroom Cores: one (1) set per floor including Men's and Women's Restrooms with (1) ADA shower each with bench and lockers, ceramic tile floors and wet walls, solid surface countertops, floor mounted metal partitions, hard lid ceiling, down lights and ADA low-flow plumbing fixtures
2. Janitor Closet – one (1) per floor
3. Stud wall framing at restroom core to underside of slab
4. Partial fire-rated assembly at restroom core to 6" above ceiling
5. Electrical Room – one (1) per floor consisting of concrete floor, unfinished drywall and taped walls, no ceiling
6. Intermediate Distribution Frame (IDF) Room – one (1) per floor consisting of concrete floor, unfinished drywall and taped walls, no ceiling
7. Landlord-maintained retractable davit arms stored in ground floor storage room.
8. Freight elevator lobby on floors 2-5
9. Finishes at common corridors on floors with multiple Tenants
10. Shaft enclosures for Base Building system risers
FIRE PROTECTION
1. Wet fire protection system: risers, distribution piping, and sprinkler heads for core areas

DESCRIPTION
2. Primary distribution and sprinkler heads adequate for “Ordinary Hazard, Group 2” for core and shell coverage
3. Fire extinguisher cabinets at core areas
4. Fire safing at Base Building vertical penetrations, including penetrations for mechanical, electrical, and plumbing systems
PLUMBING
1. Building storm and overflow drainage system, including site underground storm sewer system and connection to storm sewer mains
2. Sand/Oil separator with connection to street
3. Domestic water service with backflow prevention and Base Building risers to Tenant spaces
4. Domestic water booster pump
5. Building lab waste consisting of underslab piping under podium parking, risers, and stubs in Tenant space
6. Lab waste sewer connection to sanitary sewer, lab waste sampling port at connection
7. Water heater on 2nd and 4th floor, inside Janitors Closet serving core Restrooms.
8. Domestic sanitary sewer connection to street
9. Main water meter and irrigation meter
10. Core restroom plumbing fixtures compliant with accessibility requirements
NATURAL GAS
1. Medium pressure natural gas service to Building
2. Natural gas riser to the roof and service to Base Building boilers
HEATING, VENTILATION, AIR CONDITIONING
1. Two (2) 100,000 cfm 100% outside air roof mounted air handlers serving Tenant lab spaces, allocation to Tenant space: standard 25,000 cfm per unit per floor (connected to standby power)
2. Two (2) 40,000 cfm supply/return roof mounted air handlers serving Tenant office spaces, allocation to Tenant space: standard 10,000 cfm per unit per floor
3. Three (3) 3,300 MBH input gas fired hot water boilers (connected to standby power)
4. Two (2) 370 ton centrifugal chillers
5. Chilled Water Pipe Risers, stubbed into tenant space. Chilled Water (Per Floor) supply & return future capped Valves 2” Chilled water stub outs not meant for 24/7 systems
6. Cooling only split system for base building MPOE Room
7. Two (2) 370 ton cooling towers

DESCRIPTION
8. Secondary mechanical equipment, including pumps, roof ducting, piping, valves, manifolds, etc. to support Base Building mechanical systems
9. Hot water (Per Floor) Supply & return future capped valves 3”
10. Reheat coils within building lobby
11. Vertical supply air duct risers
12. Vertical return air duct risers
13. Horizontal supply air distribution: ducting, VAV terminals, equipment connections, insulation, air terminals, dampers, hangers, etc. within building lobby
14. Two (2) roof mounted dilution lab exhaust fan systems with 100,000 cfm capacity each, allocation to Tenant space: (connected to standby power)
15. Restroom exhaust for Base Building restrooms
16. Ventilation system for Base Building Electrical Room
17. Exhaust fan, side wall grille supply, and fire smoke dampers for ventilation of Base Building Electrical Rooms on each floor
18. Building Management System (BMS) for core area and Landlord infrastructure
ELECTRICAL
1. Site campus medium voltage distribution system with connection to PG&E grid
2. 5,000 amp 480/277V Base Building substation with underground primary feeder to campus main switchgear
3. One (1) 1500 kW diesel standby power generator
4. Standby power bus duct risers providing 200 amps per floor
5. Ground bar per floor connecting back to the Main Electric Room
6. Normal and Standby power available at roof for tenant utility loads
7. Automatic transfer switch for Tenant load
8. Lighting and power distribution for core areas separated from tenant loads
9. Base Building common area life safety emergency lighting/signage
10. Two (2) 4” sleeves in IDF rooms for future Tenant cell network infrastructure.
FIRE ALARM
1. Base Building fire alarm system with devices in core areas (connected to standby power)

DESCRIPTION
2. Fire Alarm Termination Cabinet (FATC) within each Electrical Room
TELEPHONE/DATA
1. Underground local fiber optic & telephone conduit only to Main Point of Entry (MPOE) Room
2. Two (2) 4” conduit risers from MPOE to Intermediate Distribution Frame (IDF) Room on each floor
3. Sleeves for future conduit riser from IDF Rooms to the roof; Landlord approval required for usage
4. Underground conduit to be shared with base building uses consisting of two (2) 4” conduits for campus intertie, two (2) 4” conduits for AT&T; two (2) 4” conduits for security and (1) 4” & (1) 2” conduit for Comcast.
SECURITY
1. Card access at Building entries
2. Video surveillance and intercom system at entrance and receiving doors of the Building
3. Main Lobby desk for future security operations. Security guard scope TBD

SCHEDULE 2 TO EXHIBIT B

LEED REQUIREMENTS

The following is a list of LEED prerequisites and credits that all tenants are required to meet compliance for their associated tenant-occupied spaces beyond the current Core & Shell project scope. By signing this lease, tenants are agreeing to comply with all of the outlined requirements.

-Water Efficiency Prerequisite 1 and Credit 3, Water Use Reduction

- All toilets in the core or those that are tenant-installed shall be dual-flush toilets or "high-efficiency," using 1.28 gallons per flush (gpf) or less.
- All urinals shall be waterless or ultra low-flow e.g., 0.125gpf or less.
- Bathroom faucets are required to have flow restrictors limiting flow to .5 gallons per minute (gpm). Kitchen and breakroom faucets to allow 2.0 gpm.

- Energy and Atmosphere Prerequisite 2, Minimum Energy Performance, and Credit 1, Optimize Energy Performance

- Envelope must meet the following requirements:
  - Walls: U = 0.082
  - Roof: U = 0.039
  - Curtain Glazing: U = 0.27, SHGC = 0.29 (Viracon)
- Mechanical (Based on B3) systems must comply with the following:
  - Chiller Efficiency: 0.549 kw/ton
  - Boiler Efficiency: 93%
- Plumbing (Based on B3) must comply with the following:
  - Water heater efficiency: 96%
- Lighting requirements are as follows:
  - Office Spaces > 250 ft^2: 0.75 w/sf
  - Office Spaces <= 250 ft^2: 1.0 w/sf
  - Lab Spaces: 1.4 w/sf

-Energy and Atmosphere Credit 4, Enhanced Refrigerant Management

- Tenants should specify HVAC systems that minimize refrigerant impact by avoiding refrigerants entirely or using systems that reduce their harmful impacts.
- Tenants should not install or retain fire suppression systems with CFCs, HCFCs, or halons.

-Energy and Atmosphere Credit 5, Measurement & Verification

- Tenants will be required to submeter

-Indoor Environmental Quality Prerequisite 1, Minimum Indoor Air Quality (IAQ) Performance

- Tenant-installed mechanical ventilation systems must meet the requirements of ASHRAE 62.1-2007 sections 4-7.

-Indoor Environmental Quality Credit 1, Outdoor Air Delivery Monitoring

- For mechanical ventilation systems that predominantly serve densely occupied spaces (those with a design occupant density greater than or equal to 25 people per 1000 sq. ft), tenants shall install a CO2 sensor within each densely occupied space.
- For all other mechanical ventilation systems, provide an outdoor airflow measurement device capable of measuring the minimum outdoor airflow rate at all expected system operating conditions within 15 percent of the design minimum outdoor air rate.

-Indoor Environmental Quality Credit 5, Indoor Chemical and Pollutant Source Control

- Walk off mats are installed at all building main entrances as part of the core and shell scope.
- All rooms that contain chemicals or pollutants (such as copy rooms, photo labs, laundry, and janitorial rooms) must be built with deck-to-deck full-height walls and self-closing doors, separate ventilation systems with minimum .50 cfm/sqft exhaust fans, and containment drains for appropriate disposal of hazardous liquids
- Tenants must also install MERV – 13 filters for all return and outside air intakes in regularly occupied mechanically ventilated spaces

-Indoor Environmental Quality Credit 6, Controllability of Systems - Thermal Comfort

- Tenants shall provide thermal and ventilation controls for:
    - At least 50 percent of the occupants that enable adjustment to suit individual needs and preferences & all shared multi-occupant spaces where transient groups must share controls.

-Indoor Environmental Quality Credit 7, Thermal Comfort - Design

- HVAC design must meet requirements of ASHRAE 55-2004, specifically in reference to air temperature, radiant temperature, humidity, and air speed

SCHEDULE 3 TO EXHIBIT B

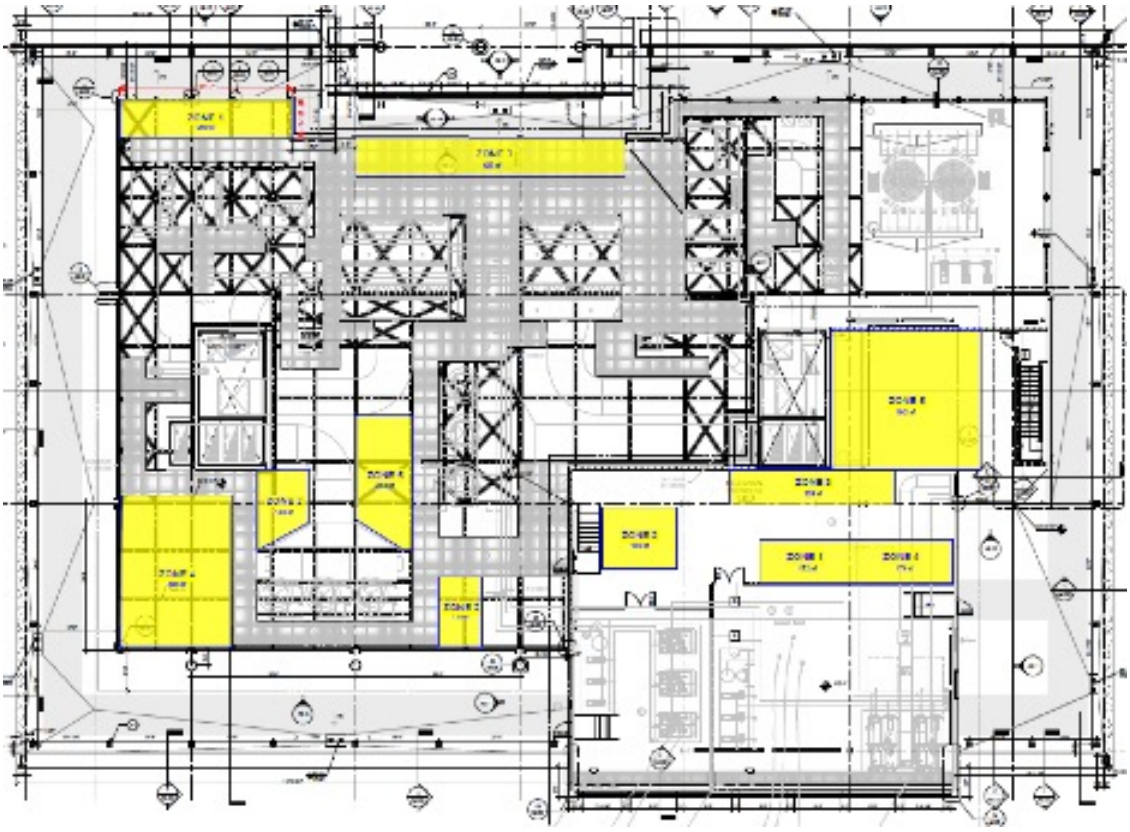
TIME DEADLINES

The below time deadlines are required to be met in order to achieve a 5/1/19 lab occupancy and 4/1/19 office occupancy.

03/19/18	TI Design Commencement
05/14/18	Tenant Submission of Final Equipment List
05/16/18	Tenant Approval of 100% Schematic Design
06/01/18	Tenant Submission of Hazardous Materials Inventory Statement
06/28/18	Tenant Approval of 100% Design Development
08/14/18	Tenant Approval of IFP (Issue for Permit) Set

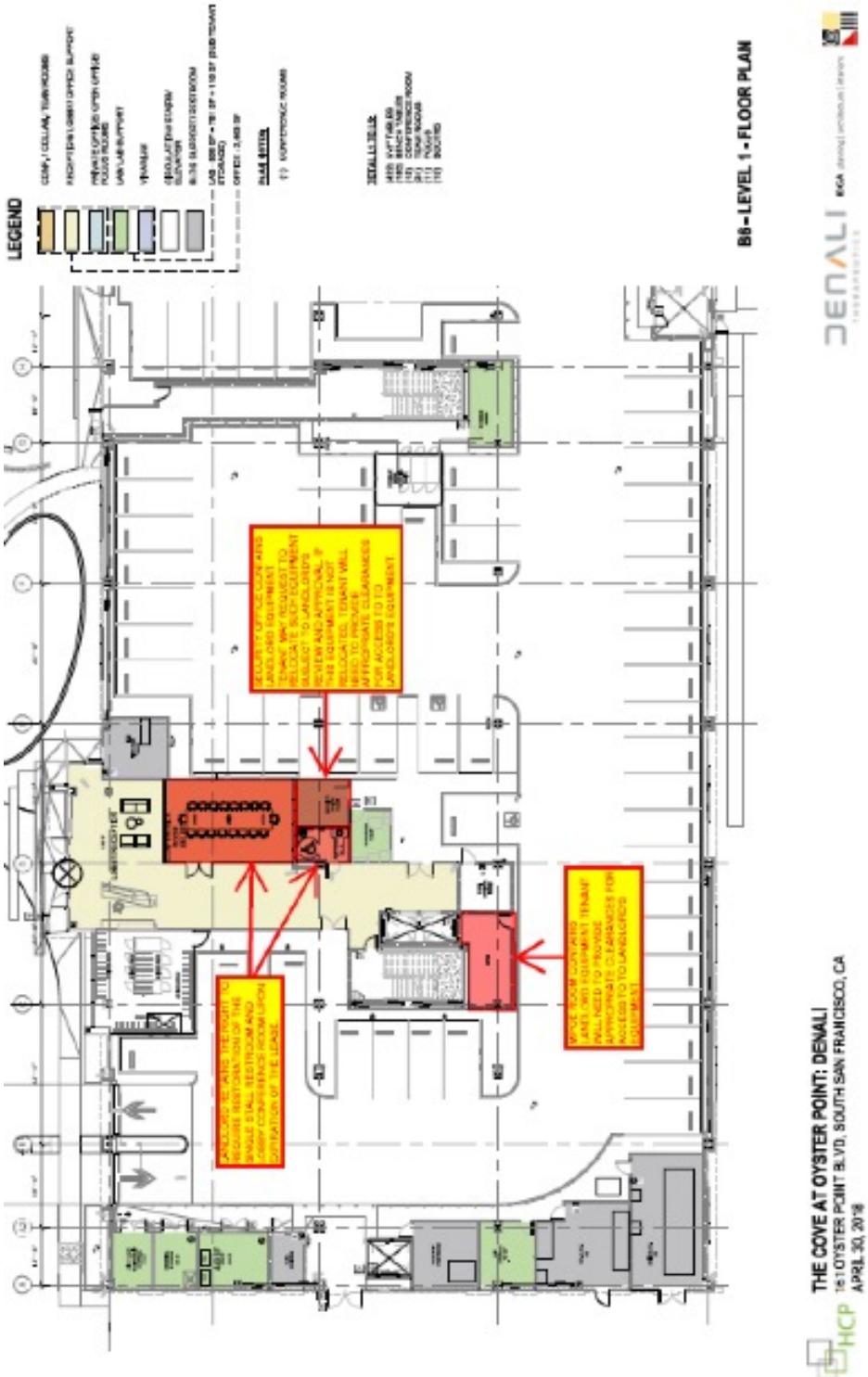
SCHEDULE 4 TO EXHIBIT B

ROOFTOP SPACE



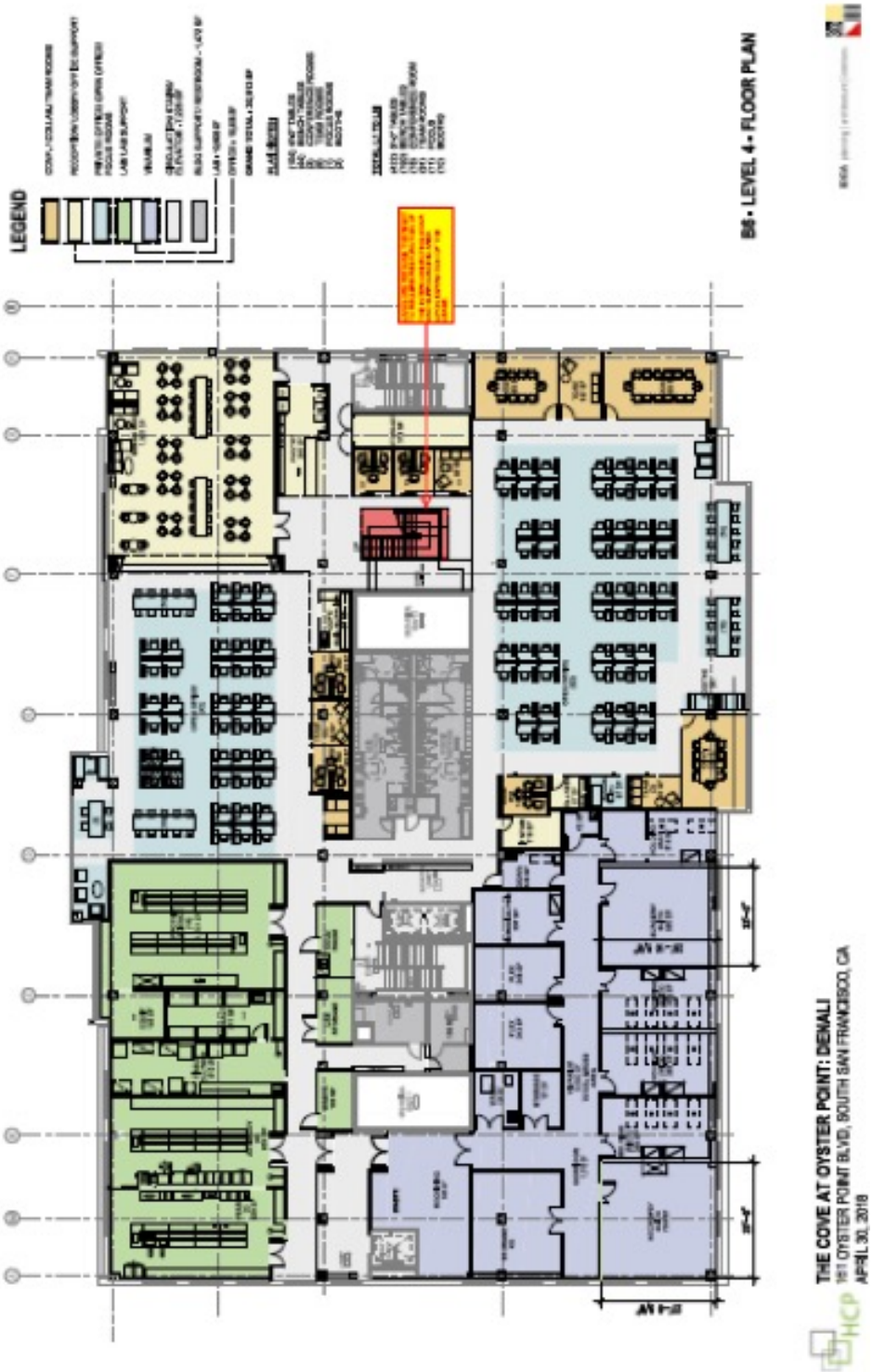
SCHEDULE 5 TO EXHIBIT B

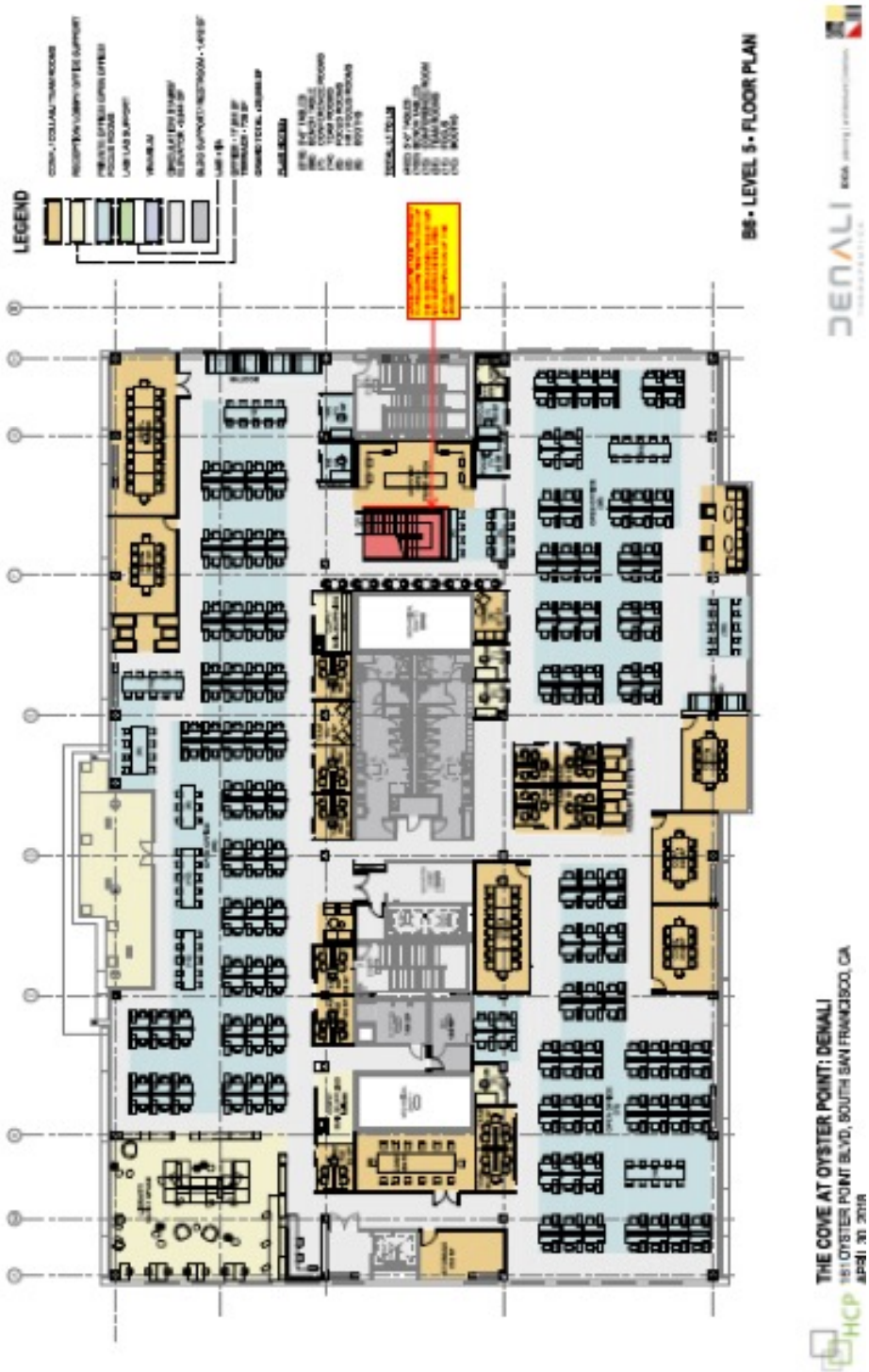
PRELIMINARY PLANS


LEGEND
B8 – LEVEL 1 - FLOOR PLAN
DENALI
THE COVE AT OYSTER POINT; DENALI
1 & 1 OYSTER POINT BLVD, SOUTH SAN FRANCISCO, CA
APRIL 30, 2018
HCP


LEGEND
B0 • LEVEL 2 • FLOOR PLAN
DENALI
THE COVE AT OYSTER POINT: DENALI
161 OYSTER POINT BLVD, SOUTH SAN FRANCISCO, CA
MAY 1, 2018
HCP


LEGEND
B8 • LEVEL 3 • FLOOR PLAN
THE COVE AT OYSTER POINT: DENALI
151 OYSTER POINT BLVD, SOUTH SAN FRANCISCO, CA
APRIL 30, 2018
HCP


LEGEND
B6 - LEVEL 4 - FLOOR PLAN
THE COVE AT OYSTER POINT: DENALI
161 OYSTER POINT BLVD, SOUTH SAN FRANCISCO, CA
APRIL 30, 2018
HCP


LEGEND
B5 • LEVEL 5 • FLOOR PLAN
DENALI
THE COVE AT OYSTER POINT; DENALI
151 OYSTER POINT BLVD, SOUTH SAN FRANCISCO, CA
April 30, 2018
HCP

SCHEDULE 6 TO EXHIBIT B

TI SPECIFICATION MANUAL

That certain "Tenant Improvement Construction Manual TI Construction Rules, Requirements, and Standards" for The Cove at Oyster Point, V3.0 April 17, 2018, containing 91 pages, which has been provided separately to Tenant.

Exhibit 10.2

SPECIFIC TERMS IN THIS EXHIBIT HAVE BEEN REDACTED BECAUSE CONFIDENTIAL TREATMENT FOR THOSE TERMS HAS BEEN REQUESTED. THE REDACTED MATERIAL HAS BEEN SEPARATELY FILED WITH THE SECURITIES AND EXCHANGE COMMISSION, AND THE TERMS HAVE BEEN MARKED AT THE APPROPRIATE PLACE WITH THREE ASTERISKS [***]

AMENDED AND RESTATED GAMMA IP LICENCE AGREEMENT

among

F-STAR BIOTECHNOLOGY LIMITED,

and

F-STAR GAMMA LIMITED,

Dated as of 24 August 2016

TABLE OF CONTENTS

THIS AMENDED AND RESTATED LICENSE AGREEMENT is made and entered into effective as of 24 August 2016 (the "**Effective Date**") by and between

(1) **F-STAR BIOTECHNOLOGY LIMITED**, a limited liability company incorporated under the laws of England and Wales ("**F-star**"),

(2) **F-STAR GAMMA LIMITED**, a limited liability company incorporated under the laws of England and Wales ("**Gamma**")

F-star and Gamma are sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**."

BACKGROUND

(A) F-star Controls (as defined herein) certain intellectual property rights with respect to Fcabs (as defined herein), mAb^2 (as defined herein) and Licensed Products (as defined herein) in the Territory (as defined herein).

(B) Gamma has been incorporated to develop Fcabs with respect to blood-brain barrier transcytosis.

(C) On 30 June 2016 F-star and Gamma entered into a licence agreement pursuant to which F-star granted to Gamma, and Gamma agreed to take a license under such intellectual property rights to develop and commercialize Licensed Products in the Territory (the "**Existing License Agreement**").

(D) The Parties wish to amend and restate the terms of the Existing License Agreement as set out in this Agreement.

(E) Under separate agreements dated the same date as this Agreement, Gamma has granted to Denali Therapeutics Inc. ("**Denali**") a research and development license and an option to take a licence under a License and Collaboration Agreement (the "**Denali License Agreement**") and the shareholders of Gamma have granted an option to purchase the entire share capital of Gamma under a Buy-out Option Agreement (as defined herein) pursuant to the terms of the SPA (as defined herein).

NOW, THEREFORE, in consideration of the premises and the mutual promises and conditions hereinafter set forth, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, do hereby agree as follows:

ARTICLE I

DEFINITIONS

As used in this Agreement and the Schedules to this Agreement the following capitalized terms, whether used in the singular or plural, shall have the meanings set out below:

1.1 "**Accepted Fcab Target**" means an Fcab Target that has become an Accepted Fcab Target as provided for in Section 3.1.

1.2 "**Accounting Standards**" means, with respect to (a) F-star that records and books of accounts shall be maintained in accordance with International Financial Reporting Standards ("**IRFS**"), and (b) Gamma or its Affiliates or Sublicensees, that records and books of accounts shall be maintained in accordance with United States Generally Accepted Accounting Principles or IFRS.

1.3 "**Affiliate**" means, with respect to a Party, any Person that, directly or indirectly, through one (1) or more intermediaries, controls, is controlled by or is under common control with such Party. For purposes of this definition, "control" and, with correlative meanings, the terms "controlling", "controlled by" and "under common control with" means (a) the possession, directly or indirectly, of the power to direct the management or policies of a Person, whether through the ownership of voting securities, by contract relating to voting rights or corporate governance, or otherwise; or (b) the ownership, directly or indirectly, of more than fifty percent (50%) of the voting securities or other ownership interest of a Person (or, with respect to a limited partnership or other similar entity, its general partner or controlling entity). The Parties acknowledge that in the case of certain entities organized under the laws of certain countries outside of the United States, the maximum percentage ownership permitted by law for a foreign investor may be less than fifty percent (50%), and that in such case such lower percentage shall be substituted in the preceding sentence, provided that such foreign investor has the power to direct the management or policies of such entity. Notwithstanding the foregoing: (i) none of [***] shall be deemed an "Affiliate" of F-star or of each other, other than [***], which are Affiliates solely of each other; and

(ii) no company with substantially the same shareholders as [***] shall be an Affiliate of any of any of [***].

1.4 "**Agreement**" means this agreement and all schedules, appendices and other addenda attached hereto as any of the foregoing may be amended in accordance with the provisions of this Agreement.

1.5 "**Antibody**" means an immunoglobulin (Ig) molecule or fragment thereof that binds to an antigen and shall include mono specific and multispecific immunoglobulin molecules or a nucleic acid-containing molecule that encodes such an immunoglobulin molecule or fragment thereof including any of the foregoing as conjugates bound to a toxin, label or other moiety. In the case of an Incorporated Biologic, "Antibody" will mean the Ig molecule or fragment thereof together with the attached Incorporated Biologic.

1.6 "**Applicable Law**" means federal, state, local, national and supra-national laws, statutes, rules, and regulations, including any rules, regulations, guidelines, or other requirements of the Regulatory Authorities, major national securities exchanges or major securities listing organizations, that may be in effect from time to time during the Term and applicable to a particular activity or country or other jurisdiction hereunder.

1.7 "**Audit Arbitrator**" has the meaning set forth in Section 7.15.

1.8 "**Bankruptcy Code**" has the meaning set forth in Section 12.6.1.

1.9 "**BLA**" has the meaning set forth in the definition of "Drug Approval Application" in Section 1.29.

1.10 "**Breaching Party**" has the meaning set forth in Section 12.3.

1.11 "**Business Day**" means a day other than a Saturday or Sunday on which banking institutions in San Francisco, California or London, England are open for business.

1.12 "**Buy-out Option Agreement**" means the agreement made between Denali and the shareholders of Gamma dated on or about the date of this Agreement, a copy of which is included as Schedule 1.12.

1.13 "**Buy-out Option Period**" means the period defined in the Denali License Agreement.

1.14 "**Buy-out Option**" means the option to buy the entire share capital of Gamma pursuant to the Buy-out Option Agreement.

1.15 "**Calendar Quarter**" means each successive period of three (3) calendar months commencing on January 1, April 1, July 1 and October 1, except that the first Calendar Quarter of the Term shall commence on the Effective Date and end on the day immediately prior to the first to occur of January 1, April 1, July 1 or October 1 after the Effective Date, and the last Calendar Quarter shall end on the last day of the Term.

1.16 "**Calendar Year**" means each successive period of twelve (12) calendar months commencing on January 1 and ending on December 31, except that the first Calendar Year of the Term shall commence on the Effective Date and end on December 31 of the year in which the Effective Date occurs and the last Calendar Year of the Term shall commence on January 1 of the year in which the Term ends and end on the last day of the Term.

1.17 "**Centralized Approval Procedure**" means the procedure through which a MAA filed with the EMA results in a single marketing authorization valid throughout the European Union.

1.18 "**Clinical Studies**" means Phase I, Phase II, Phase III, and such other tests and studies in human subjects that are required by Applicable Law, or otherwise conducted or recommended by the Regulatory Authorities, to obtain or maintain Regulatory Approvals for a Licensed Product for one (1) or more indications, including tests or studies that are intended to expand the approved indications for such Licensed Product.

1.19 "**Combination Product**" means a Licensed Product containing or consisting of one (1) or more mAb^2 and one (1) or more Other Active Ingredients, whether in the same or different formulations.

1.20 "**Commercialization**" means any and all activities directed to the preparation for sale of, offering for sale of, or sale of a molecule or product, including activities related to marketing, promoting, distributing, importing and exporting such molecule or product, and, for purposes of setting forth the rights and obligations of the Parties under this Agreement, shall be deemed to include conducting medical affairs activities and conducting Phase IV Studies, and interacting with Regulatory Authorities regarding any of the foregoing. When used as a verb, "**to Commercialize**" and "**Commercializing**" means to engage in Commercialization, and "**Commercialized**" has a corresponding meaning.

1.21 "**Commercially Reasonable Efforts**" means, with respect to the performance of Development, Commercialization, or Manufacturing activities with respect to an Fcab, a mAb^2 or a Licensed Product by a Party, the carrying out of such activities using efforts and resources comparable to the efforts and resources that such Party would typically devote to compounds or products of similar market potential at a similar stage in development or product life.

1.22 "**Confidential Information**" means any Information or data provided orally, visually, in writing or other form by or on behalf of one (1) Party (or an Affiliate or representative of such Party) to the other Party (or to an Affiliate or representative of such Party) in connection with this Agreement after the Effective Date, including Information relating to the terms of this Agreement, any Fcab, any mAb^2 or any Licensed Product, any Exploitation of any Fcab or any mAb^2 or any Licensed Product, any Know-How with respect thereto developed by or on behalf of the disclosing Party or its Affiliates (including Gamma Know-How and F-star Know-How, as applicable), or the scientific, regulatory or business affairs or other activities of either Party. Notwithstanding the foregoing, (a) F-star IP will be considered Confidential Information of F-star and (b) Gamma IP will be considered Confidential Information of Gamma.

1.23 "**Control**" means, with respect to any item of Information, material, Patent, or other property right, the possession of the right, whether directly or indirectly, and whether by ownership, license, covenant not to sue or otherwise (other than by operation of the license and other grants in ARTICLE 6), to grant a license, sublicense or other right to or under such Information, material, Patent, or other property right as provided for herein without violating the terms of any agreement or other arrangement with any Third Party; *provided*, that neither Party shall be deemed to Control any item of Information, material, Patent, or other property right of a Third Party if access under this Agreement requires or triggers a payment obligation, unless the Party being granted a sublicense hereunder to such Information, material, Patent or other property right agrees in writing to pay such payment obligation.

1.24 "**Default Notice**" has the meaning set forth in Section 12.3**.**

1.25 "**Denali License Agreement**" has the meaning set out in paragraph (C) of the Background above.

1.26 "**Development**" means all activities related to pre-clinical and other non-clinical discovery, research, testing, test method development and stability testing, toxicology, formulation, process development, manufacturing scale-up, qualification and validation, quality assurance/quality control, Clinical Studies, including Manufacturing in support thereof, statistical analysis and report writing, the preparation and submission of Drug Approval Applications, regulatory affairs with respect to the foregoing and all other activities necessary or reasonably useful or otherwise requested or required by a Regulatory Authority as a condition or in support of obtaining or maintaining a Regulatory Approval. When used as a verb, "**Develop**" means to engage in Development. For purposes of clarity, Development shall include any submissions and activities required in support thereof, required by Applicable Laws or a Regulatory Authority as a condition or in support of obtaining a pricing or reimbursement approval for an approved molecule or product.

1.27 "**Dispute**" has the meaning set forth in Section 13.6.

1.28 "**Dollars**" or "**$**" means United States Dollars.

1.29 "**Drug Approval Application**" means a Biologics License Application (a "**BLA**") as defined in the FFDCA, or any corresponding foreign application in the Territory, including, with respect to the European Union, a Marketing Authorization Application (a "**MAA**") filed with the EMA pursuant to the Centralized Approval Procedure or with the applicable Regulatory Authority of a country in Europe with respect to the mutual recognition or any other national approval procedure.

1.30 "**Effective Date**" means the effective date of this Agreement as set forth in the preamble hereto.

1.31 "**EMA**" means the European Medicines Agency and any successor agency(ies) or authority having substantially the same function.

1.32 "**European Union**" or "**E.U.**" means the economic, scientific, and political organization of member states known as the European Union, as its membership may be altered from time to time, and any successor thereto.

1.33 "**Exploit**" or "**Exploitation**" means to make, have made, import, export, use, have used, sell, have sold, or offer for sale, including to Develop, Commercialize, register, modify, enhance, improve, Manufacture, have Manufactured, hold, or keep (whether for disposal or otherwise), or otherwise dispose of.

1.34 "**Fab**" means the region on an Antibody that (a) binds to an antigen and is either composed of (i) one (1) constant and one (1) variable domain of each of the heavy and the light chain wherein the binding sites are located in the variable domains, or (ii) is another protein or polypeptide that specifically binds to an antigen or substrate, or (b) constitutes [***] or, subject to agreement (or resolution) as set out in Section 3.3 of the Denali License Agreement, [***] (an "**Incorporated Biologic**"); provided that following completion by Denali of the acquisition of Gamma following the exercise of the Buy-out Option there will no longer be a requirement to obtain such agreement (or resolution).

1.35 "**Fcab**" means a constant domain of an Antibody that includes an antigen binding site that confers a specific binding of such constant domain to a defined target antigen.

1.36 "**FDA**" means the United States Food and Drug Administration and any successor agency(ies) or authority having substantially the same function.

1.37 "**FFDCA**" means the United States Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 301 *et seq.*, as amended from time to time, together with any rules, regulations and requirements promulgated thereunder (including all additions, supplements, extensions, and modifications thereto).

1.38 "**Field**" means any use.

1.39 "**F-star Alpha**" means F-star Alpha Limited, a limited liability company incorporated under the laws of England and Wales with registered number 08676690.

1.40 "**F-star Beta**" means F-star Beta Limited, a limited liability company incorporated under the laws of England and Wales with registered number 09263520.

1.41 "**F-star GmbH**" means F-star Biotechnologische Forschungs - Und Entwicklungsges.M.B.H, an Austrian limited liability company incorporated under the laws of the Republic of Austria.

1.42 "**F-star IP**" means, collectively, F-star Patents and F-star Know-How.

1.43 "**F-star Know-How**" means, to the extent that such Know-How is disclosed to Gamma by F-star, any and all Know-How Controlled by F-star on the Effective Date or during the Term that is necessary or useful for the Exploitation of any Gamma Fcab or mAb^2.

1.44 "**F-star Patents**" means any and all Patents Controlled by F-star on the Effective Date or during the Term that would be infringed by the Exploitation of any Gamma Fcab or mAb^2, including, but not limited to, the Patents and Patent applications set forth on Schedule 1.44.

1.45 "**F-star Indemnitees**" has the meaning set forth in Section 11.1.

1.46 "**F-star In-Licenses**" means all agreements (as modified, amended or restated as of the Effective Date), pursuant to which F-star or its Affiliates derive any right, title or interest in or to the F-star IP.

1.47 "**Gamma Fcab**" means an Fcab which is directed to an Accepted Fcab Target.

1.48 "**Gamma Indemnitees**" has the meaning set forth in Section 11.2.

1.49 "**Gamma IP**" means, collectively, Gamma Patents and Gamma Know-How.

1.50 "**Gamma Know-How**" means any and all Know-How that is developed or invented after the Effective Date by or on behalf of Gamma or its Affiliates or agents. For the avoidance of doubt, Gamma Know-How does not include any Denali Background Know-How or Denali Program Know-How as defined in the Denali License Agreement.

1.51 "**Gamma Patents**" means any and all Patents that claim inventions invented after the Effective Date by or on behalf of Gamma or its Affiliates or agents. For the avoidance of doubt, Gamma Patents does not include any Denali Background Patents or Denali Program Patents as defined in the Denali License Agreement.

1.52 "**Gamma Support Services Agreement**" means that certain Support Services Agreement, between F-star and Gamma, dated as of the Effective Date, as may be amended or restated from time to time.

1.53 "**Gatekeeper**" means an independent Third Party appointed by F-star promptly following the Effective Date for the purpose of confirming proposed Accepted Fcab Targets on mutually agreeable terms including provisions relating to confidentiality.

1.54 "**Incorporated Biologic**" has the meaning set forth in Section 1.34.

1.55 "**Indemnification Claim Notice**" has the meaning set forth in Section 11.3.

1.56 "**Indemnified Party**" has the meaning set forth in Section 11.3.

1.57 "**Indirect Taxes**" has the meaning set forth in Section 7.12.

1.58 "**Information**" means all information of a technical, scientific, business and other nature, including Know-How, technology, means, methods, processes, practices, formulae, instructions, skills, techniques, procedures, experiences, ideas, technical assistance, designs, drawings, assembly procedures, computer programs, apparatuses, specifications, data, results and other material, regulatory data, and other biological, chemical, pharmacological, toxicological, pharmaceutical, physical and analytical, pre-clinical, clinical, safety, manufacturing and quality control data and information, including study designs and protocols, reagents (e.g., plasmids, proteins, cell lines, assays and compounds) and biological methodology; in each case (whether or not confidential, proprietary, patented or patentable, of commercial advantage or not) in written, electronic or any other form now known or hereafter developed.

1.59 "**Intellectual Property**" has the meaning set forth in Section 12.6.1.

1.60 "**Know-How**" means any and all data, inventions, methods, proprietary information, processes, trade secrets, techniques and technology, whether patentable or not but which are not generally known, including discoveries, formulae, materials (including chemicals), biological materials (including expression constructs, nucleic acid sequences, amino acid sequences, and cell lines), practices, test data (including pharmacological, toxicological, pre-clinical and clinical information and test data), analytical and quality control data (including drug stability data), manufacturing technology and data (including formulation data), and sales forecasts, data and descriptions.

1.61 "**Licensed Product**" means, on a mAb^2-by-mAb^2 basis, any product for use in the Field in the Territory that contains that mAb^2, alone or in combination with one (1) or more Other Active Ingredients. Licensed Products in any and all forms, in current and future formulations, dosage forms and strengths, and delivery modes, including any improvements thereto shall be deemed to be the same Licensed Product.

1.62 "**Losses**" has the meaning set forth in Section 11.1.

1.63 "**MAA**" has the meaning set forth in the definition of "Drug Approval Application" in Section 1.29.

1.64 "**mAb^{2}**" means an Antibody (a) which contains a Gamma Fcab and (b) which contains a Fab or an Incorporated Biologic.

1.65 "**Major EU Market**" means each of [***].

1.66 "**Manufacture**" and "**Manufacturing**" means all activities related to the synthesis, making, production, processing, purifying, formulating, filling, finishing, packaging, labeling, shipping, and holding of any molecule, product or any intermediate thereof, including process development, process qualification and validation, scale-up, pre-clinical, clinical and commercial production and analytic development, product characterization, supply chain, stability testing, quality assurance testing and release, and quality control.

1.67 "**Mono Product**" has the meaning set forth in the definition of "Net Sales" in Section 1.68.

1.68 "**Net Sales**" means, with respect to a Licensed Product for any period, the total amount billed or invoiced on sales of such Licensed Product during such period by Gamma, its Affiliates, or Sublicensees in the Territory to Third Parties (such Third Parties including wholesalers or Distributors), in bona fide arm's length transactions, less the following deductions, in each case related specifically to the Licensed Product and actually allowed and taken by such Third Parties and not otherwise recovered by or reimbursed to Gamma, its Affiliates**,** or Sublicensees:

(a) trade, cash and quantity discounts;

(b) price reductions or rebates, retroactive or otherwise, imposed by, negotiated with or otherwise paid to governmental authorities or other payees;

(c) taxes on sales (such as sales, value added, or use taxes) to the extent added to the sale price and set forth separately as such in the total amount invoiced;

(d) amounts repaid or credited by reason of rejections, defects, return goods allowance, recalls or returns, or because of retroactive price reductions, including rebates or wholesaler charge backs;

(e) the portion of administrative fees paid during the relevant time period to group purchasing organizations, pharmaceutical benefit managers or similar entities or Medicare Prescription Drug Plans relating to such Licensed Product;

(f) freight, insurance, import/export, and other transportation charges to the extent added to the sale price and set forth separately as such in the total amount invoiced, as well as any fees for services provided by wholesalers and warehousing chains and other service providers related to inventory management or the distribution of such Licensed Product; and

(g) uncollectable debt up to a maximum of [***] of Net Sales.

Net Sales shall not include transfers or dispositions for charitable, promotional, pre-clinical, clinical, regulatory, or governmental purposes. Net Sales shall include the amount or fair market value of all other consideration received by Gamma, its Affiliates or Sublicensees in respect of the sale of Licensed Product, whether such consideration is in cash, payment in kind, exchange or other form. Net Sales shall not include sales between or among Gamma, its Affiliates, or Sublicensees.

Subject to the above, Net Sales shall be calculated in accordance with the standard internal policies and procedures of Gamma, its Affiliates, or Sublicensees, which must be in accordance with Accounting Standards.

For purposes of calculating Net Sales, all Net Sales shall be converted into Dollars in accordance with Section 7.10.

In the event a Licensed Product is a Combination Product, the Net Sales for such Combination Product shall be calculated as follows:

(i) If Gamma, its Affiliate, or Sublicensee separately sells in such country or other jurisdiction, (A) a product containing as its sole active ingredient a mAb^2 contained in such Combination Product (the "**Mono Product**") and (B) products containing as their sole active ingredients the Other Active Ingredients in such Combination

Product, the Net Sales attributable to such Combination Product shall be calculated by multiplying actual Net Sales of such Combination Product by the fraction A/(A+B) where: "A" is Gamma's (or its Affiliate's or Sublicensee's, as applicable) average Net Sales price during the period to which the Net Sales calculation applies for the Mono Product in such country or other jurisdiction and "B" is Gamma's (or its Affiliate's or Sublicensee's, as applicable) average Net Sales price during the period to which the Net Sales calculation applies in such country or other jurisdiction, for products that contain as their sole active ingredients the Other Active Ingredients in such Combination Product.

(ii) If Gamma, its Affiliate, or Sublicensee separately sells in such country or other jurisdiction the Mono Product but does not separately sell in such country or other jurisdiction products containing as their sole active ingredients the Other Active Ingredients in such Combination Product, the Net Sales attributable to such Combination Product shall be calculated by multiplying the Net Sales of such Combination Product by the fraction A/C where: "A" is Gamma's (or its Affiliate's or Sublicensee's, as applicable) average Net Sales price during the period to which the Net Sales calculation applies for the Mono Product in such country or other jurisdiction, and "C" is Gamma's (or its Affiliate's or Sublicensee's, as applicable) average Net Sales price in such country or other jurisdiction during the period to which the Net Sales calculation applies for such Combination Product.

(iii) If Gamma, its Affiliates, and Sublicensees do not separately sell in such country or other jurisdiction the Mono Product but do separately sell products containing as their sole active ingredients the Other Active Ingredients contained in such Combination Product, the Net Sales attributable to such Combination Product shall be calculated by multiplying the Net Sales of such Combination Product by the fraction (D-E)/D where: "D" is the average Net Sales price during the period to which the Net Sales calculation applies for such Combination Product in such country or other jurisdiction and "E" is the average Net Sales price during the period to which

the Net Sales calculation applies for products that contain as their sole active ingredients the Other Active Ingredients in such Combination Product.

(iv) If Gamma, its Affiliates, and Sublicensees do not separately sell in such country or other jurisdiction both the Mono Product and the Other Active Ingredients or ingredients in such Combination Product, the Net Sales attributable to such Combination Product shall be determined by the Parties in good faith based on the relative fair market value of such Mono Product and such Other Active Ingredient or ingredients. If the Parties cannot agree on such relative value, the Dispute shall be resolved pursuant to Section 13.6.

1.69 "**Non-Breaching Party**" has the meaning set forth in Section 12.3.

1.70 "**Other Active Ingredient**" means any component that provides pharmacological activity or other direct therapeutic effect in the Field or that therapeutically affects the structure or any function of the body whereby such component is not covered by a Valid Claim of the F-star Patents.

1.71 "**Patent Challenge**" has the meaning set forth in Section 12.5

1.72 "**Patents**" means (a) all national, regional and international patents and patent applications, including provisional patent applications, (b) all patent applications filed either from such patents, patent applications or provisional applications or from an application claiming priority from either of these, including divisionals, continuations, continuations-in-part, provisionals, converted provisionals and continued prosecution applications, (c) any and all patents that have issued or in the future issue from the foregoing patent applications ((a) and (b)), including utility models, petty patents and design patents and certificates of invention, and (d) any and all extensions or restorations by existing or future extension or restoration mechanisms, including revalidations, reissues, re-examinations and extensions (including any supplementary protection certificates and the like) of the foregoing patents or patent applications ((a), (b), and (c))

1.73 "**Person**" means an individual, sole proprietorship, partnership, limited partnership, limited liability partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture or other similar entity or organization, including a government or political subdivision, department or agency of a government.

1.74 "**Phase I**" means a human clinical trial of a Licensed Product, the principal purpose of which is a preliminary determination of safety, tolerability, dosing, pharmacological activity or pharmacokinetics in healthy individuals or patients or similar clinical study prescribed by the Regulatory Authorities, including the trials referred to in 21 C.F.R. §312.21(a), as amended.

1.75 "**Phase II**" means a human clinical trial of a Licensed Product, the principal purpose of which is a determination of safety and efficacy in the target patient population, which is prospectively designed to generate sufficient data that may permit commencement of pivotal clinical trials, or a similar clinical study prescribed by the Regulatory Authorities, from time to time, pursuant to Applicable Law or otherwise, including the trials referred to in 21 C.F.R. §312.21(b), as amended.

1.76 "**Phase III**" means a human clinical trial of a Licensed Product on a sufficient number of subjects in an indicated patient population that is prospectively designed to establish that a mAb^2 or Licensed Product is safe and efficacious for its intended use and to determine the benefit/risk relationship, warnings, precautions, and adverse reactions that are associated with such product in the dosage range to be prescribed, which trial is intended to support marketing approval of such mAb^2 or Licensed Product, including all tests and studies that are required by the FDA from time to time, pursuant to Applicable Law or otherwise, including the trials referred to in 21 C.F.R. §312.21(c), as amended.

1.77 "**Phase IV Study**" means a post-marketing human clinical study for a Licensed Product with respect to any indication as to which Regulatory Approval has been received or for a use that is the subject of an investigator-initiated study program.

1.78 "**Platform IP**" means Platform Know-How and Platform Patents.

1.79 "**Platform Know-How**" means Know-How which was first generated by either Party under an Fcab Discovery Program (as defined in the Denali License Agreement) and/or a mAb^2 Development Plan (as defined in the Denali License Agreement) and/or Technical Development (whenever it was undertaken) which constitutes (i) improvements, modifications and enhancements to the inventions claimed (either in issued claims or pending claims) in the F-star Patents that exist as of the Effective Date, and such improvements, modifications and enhancements are covered by claims (either in issued claims or pending claims) of the F-star Patents that exist as of the Effective Date (ii) [***] (iii) [***] and (iv) [***] provided always that Platform Know-How does not include any Know-How which constitutes (a) the amino acid sequence of the antigen binding site and Fcab constant domain wherein such antigen binding site sequence confers specific binding of the Fcab to an Accepted Fcab Target or (b) the use of an Antibody and its sequence which has an antigen binding site in a constant domain wherein such sequence confers specific binding of the constant domain to an Accepted Fcab Target or (c) the manufacture or formulation (or methods of manufacture or formulation) of an Antibody and its sequence which has a binding site in a constant domain wherein such sequence confers specific binding to an Accepted Fcab Target or (d) the modification of a native binding site within binding loops to a native antigen [***]. For avoidance of doubt, after the expiration of the Buy-out Option Period, if Denali has not exercised the Buy-out Option, then F-star and Gamma may amend this Section provided such amendment does not impair the value of the license granted by Gamma to Denali under the Denali License Agreement.

1.80 "**Platform Patents**" means any Patent claiming or covering any invention which was first conceived by either Party under an Fcab Discovery Program (as defined in the Denali License Agreement) and/or a mAb^2 Development Plan (as defined in the Denali License Agreement) and/or Technical Development (whenever it was undertaken) which claims or covers (i) improvements, modifications and enhancements to the inventions claimed (either in issued claims or pending claims) in the F-star Patents that exist as of the Effective Date, and such improvements, modifications and enhancements are covered by the claims (either in

issued claims or pending claims) of the F-star Patents that exist as of the Effective Date (ii) [***] (iii) [***] and (iv) [***] provided always that Platform Patents do not include any Patent which specifically claims or covers (a) the amino acid sequence of the antigen binding site and Fcab constant domain wherein such antigen binding site sequence confers specific binding of the Fcab to an Accepted Fcab Target or (b) the use of an Antibody and its sequence which has a binding site in a constant domain wherein such sequence confers specific binding of the constant domain to an Accepted Fcab Target or (c) the manufacture or formulation (or methods of manufacture or formulation) of an Antibody and its sequence which has a binding site in a constant domain wherein such sequence confers specific binding of the constant domain to an Accepted Fcab Target or (d) the modification of a native binding site within binding loops to a native antigen [***]. For avoidance of doubt, after the expiration of the Buyout Option Period, if Denali has not exercised the Buy-out Option, then F-star and Gamma may amend this Section provided such amendment does not impair the value of the license granted by Gamma to Denali under the Denali License Agreement.

1.81 "**Publishing Party**" has the meaning set forth in Section 9.4.3.

1.82 "**Regulatory Approval**" means, with respect to a country or other jurisdiction in the Territory, any and all approvals (including Drug Approval Applications), licenses, registrations, or authorizations of any Regulatory Authority necessary to Commercialize a mAb^2 or Licensed Product in such country or other jurisdiction, including, where applicable, (a) pricing or reimbursement approval in such country or other jurisdiction, and (b) pre- and post-approval marketing authorizations (including any prerequisite Manufacturing approval or authorization related thereto).

1.83 "**Regulatory Authority**" means any applicable supra-national, federal, national, regional, state, provincial, or local governmental or regulatory authority, agency, department, bureau, commission, council, or other entities (e.g., the FDA, EMA and PMDA) regulating or otherwise exercising authority with respect to activities contemplated in this Agreement, including the Exploitation of any mAb^2 or Licensed Products in the Territory.

1.84 "**Senior Officer**" means, with respect to Gamma, its Chief Executive Officer or his/her designee, and with respect to F-star, its Chief Executive Officer or his/her designee.

1.85 "**SPA**" means that certain Share Purchase Agreement to be made between Denali and the shareholders of Gamma, the form of which is attached to the Buy-out Option Agreement, and pursuant to which Denali purchases the share capital of Gamma pursuant to the Buy-out Option Agreement.

1.86 "**Sublicensee**" means a Third Party, other than a Distributor, that is granted a sublicense by Gamma under the grants in Section 6.1 as provided in Section 6.5.

1.87 "**Target**" means the target specifically bound by the Fcab or the Fab in an Antibody. With respect to an Incorporated Biologic, the "Target" will mean the Incorporated Biologic itself and not the target(s) bound by the Incorporated Biologic. For purposes of exclusivity or grant of licenses (i.e. Gamma's right to include a variant of a target), "Target" will also include fragments or polymorphisms (including without limitation splice variants or mutants) of such target antigen (or Incorporated Biologic) provided that in each case Entrez Gene ID, HUGO, UniProt, SwissProt or other gene/protein listing database used on the date the Target is gatekept specifically identifies that such fragment or polymorphism is related to such Target or Incorporated Biologic by identifying it as a fragment and/or polymorphism of such Target or Incorporated Biologic in the database record. By way of example, and without limitation, if there is an Accepted Fab Target (as defined in the Denali License Agreement) that is an antigen commonly known as CDXXX, and subsequently a polymorphism of CDXXX is submitted to one of the gene/protein listing databases, and where the listing specifically identifies the new listing as a polymorphism of CDXXX, then provided such polymorphism is not at such time an Unavailable Fab Target, such polymorphism would also be considered the Accepted Fab Target under this Agreement (and subject to the exclusivity and grant of licenses).

1.88 "**Technical Development Term**" means the term for the license granted by F-star to Gamma under Section 6.1.1 (and which Gamma sublicenses to Denali under Section 8.1.1 of the Denali License Agreement) which term commenced prior to the Effective Date and

continues, with respect to an Accepted Fcab Target-by-Accepted Fcab Target, until [***] after the date that Denali determines to cease funding F-star's costs under the Services Agreement with respect to an Fcab Discovery Plan for such Accepted Fcab Target pursuant to Section 9.2 of the Denali License Agreement (provided such determination date is not less than [***] after Denali has transferred to F-star all reagents and assays for F-star to conduct the antigen validation (e.g. conclusion of Step 1, Antigens of Schedule 1.51 of the Denali License Agreement for the TfR Fcab Discovery Plan) for the Accepted Fcab Target pursuant to the applicable Fcab Discovery Plan).

1.89 "**Technical Development**" means the use by Gamma of the F-star IP existing at the Effective Date, to Develop Fcabs and to generate libraries of Fcabs and/or to undertake further development of the F-star IP in each case to support the development of Fcabs.

1.90 "**Term**" means the period commencing on the Effective Date and expiring on the expiry of the term of this Agreement as set forth in Section 12.1 or the earlier termination in accordance with the terms of this Agreement in relation to all Gamma's Accepted Fcab Targets or Accepted Fab Targets.

1.91 "**Territory**" means all countries and territories worldwide.

1.92 "**Third Party Claims**" has the meaning set forth in Section 11.1.

1.93 "**Third Party**" means any Person other than F-star Gamma and their respective Affiliates. For clarity each of F-star Alpha, and F-star Beta shall be deemed Third Parties.

1.94 "**TfR**" means Transferrin Receptor also known as TFR1, TRFR and TFR which is identified by UniProt number P02786.

1.95 "**Transferred Library**" means the repertoire of Antibodies which have binding sites in a constant domain and which is or is to be transferred to F-star by Gamma or by a licensee of Gamma (including all libraries transferred by Denali to F-star and/or Gamma).

1.96 "**Unavailable Fcab Targets**" has the meaning set forth in Section 3.1.3.

1.97 "**Valid Claim**" means either: (a) a claim of a pending Patent application, which claim was filed and is being prosecuted in good faith and has not been abandoned or finally disallowed without the possibility of appeal or re-filing of the application and such application has not been outstanding for more than [***] from its earliest priority date; or (b) a claim of any issued and unexpired Patent directed to patentable subject matter for which the validity, enforceability, or patentability has not been affected by any of the following: (x) irretrievable lapse, abandonment, revocation, dedication to the public, or disclaimer; or (y) a holding, finding, or decision of invalidity, unenforceability, or non-patentability by a court, governmental agency, national or regional patent office, or other appropriate body that has competent jurisdiction, such holding, finding, or decision being final and unappealable or unappealed within the time allowed for appeal.

1.98 In this Agreement:

1.98.1 all references to a particular clause, section or schedule shall be a reference to that clause, section or schedule in or to this Agreement as it may be amended from time to time pursuant to this Agreement;

1.98.2 the headings are inserted for convenience only and shall be ignored in construing this Agreement;

1.98.3 words importing the masculine gender shall include the feminine and vice versa and words in the singular include the plural and vice versa;

1.98.4 words denoting persons shall include any individual, partnership, company, corporation, joint venture, trust association, organisation or other entity, in each case whether or not having separate legal personality;

1.98.5 the words "include", "included" and "including" are to be construed without conveying any limitation to the generality of the preceding words;

1.98.6 reference to any statute or regulation includes any modification or reenactment of that statute or regulation;

1.98.7 any reference to notices or consent being sought or given in writing shall require the consent or notice to be signed by an appropriately authorised person and shall not include consents or notices conveyed by email; and

1.98.8 in the event of any inconsistency or conflict between this Agreement and any of the Schedules, this Agreement shall prevail.

ARTICLE 2
AMENDMENT AND RESTATEMENT OF EXISTING AGREEMENT

2.1 The terms of this Agreement amend and restate the Existing License Agreement with effect from the Effective Date. For the avoidance of doubt the Existing License Agreement shall continue in full force and effect until this Agreement comes into force.

ARTICLE 3
TARGET NOMINATION

3.1 **Selection of Accepted Fcab Targets.** Gamma has the right to nominate up to three (3) Targets for approval as Accepted Fcab Targets. Prior to the Effective Date, TfR has been accepted by the Parties as the first such Accepted Fcab Target. Gamma may nominate up to two further Accepted Fcab Targets as follows:

3.1.1 The second and third Fcab are both to be directed against Targets which have been selected with the aim to facilitate transcytosis of the resulting mAb^2 across the blood-brain barrier.

3.1.2 The second and third Fcab Targets shall be nominated no later than thirty-six (36) months after the Effective Date.

3.1.3 Gamma shall nominate a proposed Accepted Fcab Target by providing a notice to F-star and the Gatekeeper simultaneously (an "**Fcab Target Nomination Notice**"). Such notice must include the Entrez Gene ID, HUGO or official symbol and common synonyms (if available) for such Target. On receipt of such notice

F-star shall submit the Fcab to the Gatekeeper. Within ten (10) Business Days following the Gatekeeper's receipt of the Fcab Target Nomination Notice with respect to a particular Target, the Gatekeeper shall verify whether such Target is on the list of Unavailable Fcab Targets and notify F-star in writing. On receipt of a response from the Gatekeeper, F-star shall notify Gamma whether the proposed Fcab Target is an Available Fcab Target. An "**Available Fcab Target**" is a Target, in respect of which the F-star is entitled to exercise the rights pursuant to this Agreement, to nominate as an Accepted Fcab Target and which is not an Unavailable Fcab Target. The Gatekeeper shall maintain an up-to-date list of Unavailable Fcab Targets ("**Unavailable Fcab Targets**"). An Unavailable Fcab Target shall only be a Target that is:

(a) the subject of a pre-existing and bona fide internal Fcab program of F-star GmbH, F-star Ltd or their respective Affiliates on which F-star GmbH, F-star Ltd or their respective Affiliates are then expending resources to the active research, Development or Commercialization of such program and have committed resources to the continued research, Development or Commercialization of such program in the upcoming twelve (12) months,

(b) under an active, executed written agreement between one or more of F-star GmbH, F-star Ltd or their respective Affiliates and a Third Party that would preclude the grant of a license or exclusivity to such Target, or

(c) the subject of bona fide, ongoing negotiations between one or more of F-star GmbH, F-star Ltd or their respective Affiliates and a Third Party where such negotiations specifically contemplate that a license or exclusivity would be granted to such Target and a written term sheet (or other written statement (including by email) of the scope and corresponding financial terms of such potential agreement) has been

received or delivered by or to F-star, F-star GmbH or their respective Affiliates.

3.1.4 If the Fcab Target is an Unavailable Fcab Target then, subject to Section 3.1.2, Gamma shall be entitled to nominate a different Target as a proposed Accepted Fcab Target and the provisions of this Section 3.1 shall apply to such proposed Accepted Fcab Target.

ARTICLE 4
DILIGENCE

4.1 Subject to Section 4.4, Gamma shall use its Commercially Reasonable Efforts to [***].

4.2 Gamma shall keep F-star appraised of the status of the preclinical, clinical and commercial development of all products by providing F-star with a [***] on a [***] basis covering the activities performed by or on behalf of Gamma with respect to each applicable product since the previous report.

4.3 Gamma shall, and shall procure the Denali shall, promptly provide to F-star Ltd a copy (in the form of a glycerol stock) of each Transferred Library created by Denali pursuant to the Denali License Agreement or this Agreement on its creation. Neither Licensor, nor F-star Ltd or F-star GmbH shall use any such Transferred Library to screen or identify Fcabs against any Accepted Fcab Targets.

4.4 Following completion by Denali of the acquisition of Gamma following the exercise of the Buy-out Option, the following provisions shall apply in place of Section 4.1 and amend Section 4.2:

4.4.1 Gamma's obligations to report to F-star shall be the same as Denali's reporting obligations in the SPA, *mutatis mutandis;* and

4.4.2 The provisions of Section 2.1 through 2.7 of Schedule 5 of the SPA are incorporated herein on the basis that F-star has the same rights, including as to enforcing such rights, as the Sellers (as defined in the SPA) in such

Section subject to the limitations in such Section and applied *mutatis mutandis* to this Agreement. For example, [***].

ARTICLE 5
EXCLUSIVITY

5.1 **Exclusivity.** F-star will not, and will cause its Affiliates not to,

5.1.1 (i) directly or indirectly, Develop, Commercialize or Manufacture (a) an Antibody or any other molecule in either case incorporating a Gamma Fcab or (b) any Gamma Fcab as a stand-alone product in the Field, in each case in any country or other jurisdiction in the Territory, or (ii) license, authorize, appoint, or otherwise enable any Third Party to, directly or indirectly, Develop, Commercialize or Manufacture (a) an Antibody or any other molecule in either case incorporating a Gamma Fcab or (b) any Gamma Fcab, in each case in any country or other jurisdiction in the Territory.

5.1.2 take any action to solicit, initiate, encourage or assist the submission of any proposal, negotiation or offer from any Person relating to a Gamma Fcab.

5.2 F-star shall cease, and shall cause each of its Affiliates to cease, all Development on Antibody or any other molecule incorporating a Gamma Fcab, except as expressly set forth in the Gamma Support Services Agreement.

5.3 **Exclusivity in respect of Platform IP assigned to F-star.** F-star hereby covenants that it shall not, and shall cause its Affiliates not to: (i) use or license, authorize, appoint, fund or otherwise enable any Third Party to use, any Platform IP that is assigned by Gamma to F-star pursuant to this Agreement or by Denali to F-star pursuant to the Denali License Agreement; or (ii) use any Transferred Library; in each case to Develop, Commercialize or Manufacture any Fcab which is intended for the transport of a product across the blood-brain barrier. This covenant shall survive the expiry or termination of this Agreement for whatever reason.

ARTICLE 6
GRANT OF RIGHTS

6.1 Grants by F-star to Gamma.

6.1.1 During the Technical Development Term, F-star hereby grants to Gamma, and following completion by Denali of the acquisition of Gamma following the exercise of the Buy-out Option, to Gamma's Affiliates, a non-exclusive license, with no right to grant sublicenses (except to Denali as provided in the Denali License Agreement), under the F-star IP (existing as of the Effective Date) solely for the purpose of undertaking Technical Development solely for the purposes of generating, identifying or improving potential Fcabs against Accepted Fcab Targets.

6.1.2 Subject to Sections 6.5 and 6.8, F-star hereby grants to Gamma, and following completion by Denali of the acquisition of Gamma following the exercise of the Buy-out Option, to Gamma's Affiliates, an exclusive license, with the right to grant sublicenses as provided below, under the F-star IP and Platform IP, to Exploit, and for the sole purpose of discovering and Exploiting Gamma Fcabs and mAb^2s.

6.2 Grants by Gamma.

6.2.1 Gamma hereby grants to F-star, from the Effective Date until the expiration of the applicable License Option Deadline, a non-exclusive sub-license, with no right to grant sublicenses without Gamma's consent under the rights granted to Gamma under Section 8.3.1 of the Denali License Agreement, solely to conduct F-star's activities under the Fcab Discovery Plan and the mAb^2 Development Plan in the Territory

6.2.2 Gamma shall, and hereby does, grant to F-star (without any further action required on the part of Gamma) a non-exclusive, royalty-free and fully paid-up, irrevocable and perpetual license, with the right to grant sublicenses through

multiple tiers, under Gamma IP reasonably necessary to Exploit, and for the sole purpose of Exploiting, any Fcabs (other than any Gamma Fcab), but expressly excluding from such license grant any rights to (a) any Gamma Fcabs, (b) any mAb^2, (c) any Fabs or (d) any Fab Targets, and subject to: (i) ARTICLE 5; and (ii) to any licenses granted to Gamma in Section 6.1; in the Field in the Territory.

6.2.3 Gamma shall, and hereby does, grant to F-star (without any further action required on the part of Gamma) a non-exclusive, royalty-free and fully paid-up, irrevocable and perpetual license (or sublicense as the case may be), with the right to grant sublicenses through multiple tiers, under Gamma IP and any Denali Background IP, Denali Program IP and Joint Program IP (as each of those terms are defined in the Denali License Agreement) in each case which Gamma or its Affiliates (including Denali if Denali exercises the Buy-out Option) has used in conducting Technical Development and which is reasonably necessary to Exploit, and for the sole purpose of Exploiting, any Platform IP subject to: (i) ARTICLE 5 (including Section 5.3, which terms shall also apply to the rights granted in this Section); and (ii) to any licenses granted to Gamma in Section 6.1; in the Field in the Territory.

6.3 Know-How License.

6.3.1 Gamma hereby grants to F-star from the Effective Date a non-exclusive, royalty-free and fully paid-up, irrevocable and perpetual license, with the right to grant sublicenses through multiple tiers, under Gamma Know-How and any Know-How that is the subject of Section 8.4.1 of the Denali License Agreement to the extent that such Know-How: (i) was disclosed to F-star during the Term; and (ii) does not comprise any sequence of a Gamma Fcab or any Fab which is confidential to Gamma; for all purposes in all fields. For clarity, the license grant in this Section 6.3.1 does not include rights under any Patents.

6.3.2 F-star hereby grants to Gamma from the Effective Date a non-exclusive, royalty-free and fully paid-up, irrevocable and perpetual license, with the right to grant

sublicenses through multiple tiers, under F-star Know-How and Platform Know-How in each case to the extent that such Know-How: (i) with respect to Know-How, was disclosed to Gamma during the Term; and (ii) does not comprise any sequence of any Fcab or Fab which is confidential to F-star unless otherwise licensed to Gamma hereunder; for all purposes in all fields. For clarity, the license grant in this Section 6.3.2 does not include rights under any Patents.

6.4 Platform IP License. F-star hereby grants to Gamma a non-exclusive, royalty-free and fully paid-up, irrevocable and perpetual license, with the right to grant sublicenses through multiple tiers, under the Platform IP to Exploit any product or practice any method in each case in connection with the Exploitation of products for the delivery of therapeutics across the blood brain barrier and provided that such license grant does not include the right to, prior to the later of (i) the last to expire of any Platform Patents and (ii) [***]: (a) [***] in relation to the introduction of new antigen binding sites (where the reference to new means that the binding site was not obtained by modifying the binding site that is native to that loop) within the binding loops of a constant domain of an Antibody provided always that nothing in this part (a) shall preclude Gamma from researching, discovering, Developing or Exploiting Gamma Fcabs or mAb^2, or (b) grant a sublicense to the Platform IP without also granting rights in relation to specific products that have been or are to be developed by Gamma and which products are also covered by Intellectual Property owned or Controlled by Gamma or an Affiliate of Gamma.

6.5 Grant of sublicenses under Denali Intellectual Property to F-star.

6.5.1 If Denali has not exercised its Buy-out Option within the Buy-out Option Period, Gamma shall, and hereby does, grant to F-star (without any further action required on the part of Gamma or F-star) a non-exclusive, royalty-free and fully paid-up, irrevocable and perpetual sub-license, with the right to grant sublicenses through multiple tiers the rights granted to Denali in Section 8.3.2 of the Denali License Agreement, but expressly subject to the limitations set out in Section 8.3.2 of the Denali License Agreement.

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

6.5.2 Gamma shall, and hereby does, grant to F-star (without any further action required on the part of Gamma or F-star) a non-exclusive, royalty-free and fully paid-up, irrevocable and perpetual sub-license, with the right to grant sublicenses through multiple tiers the rights granted to Gamma in Section 8.3.3 of the Denali License Agreement, but expressly subject to the limitations set out in Section 8.3.3 of the Denali License Agreement.

6.6 Grant of Sublicenses by Gamma. Gamma shall have the right to grant sublicenses, through multiple tiers of sublicenses, under the licenses granted in Section 6.1, to Sublicensees and Distributors; *provided* that any such sublicenses shall (a) be in writing, (b) be consistent with the terms and conditions of this Agreement, and (c) require the applicable Sublicensee or Distributor to comply with all applicable terms of this Agreement. Gamma shall be responsible for the performance of any Sublicensee or Distributor as if such Sublicensee or Distributor were "Gamma" hereunder. [***].

6.7 Distributorships. Gamma and its Affiliates shall have the right, in their sole discretion, to appoint any Third Parties, in the Territory or in any country or other jurisdiction of the Territory, to distribute, market, and sell the Licensed Products, in circumstances where the Person purchases Licensed Products from Gamma or its Affiliates or a Sublicensee of either of them. Where Gamma or its Affiliates appoints such a Third Party, that Person shall be a "**Distributor**" for purposes of this Agreement and Net Sales from such Distributors shall include all of the amounts received from such Third Parties [***] in consideration for the sale of any Licensed Products. For clarity, if Gamma grants to a Third Party any rights under applicable Intellectual Property to make, use, sell, offer for sale or import a Licensed Product, then such Third Party shall be a Sublicensee and not a Distributor.

6.8 Retention of Rights. Notwithstanding the exclusive licenses granted to Gamma pursuant to Section 6.1, F-star retains the right for itself and its Affiliates and licensees to practice under the F-star IP outside the scope of the licenses granted herein and to perform and to sublicense subcontractors to perform its obligations under this Agreement and the Gamma Support Services Agreement. Except as expressly provided herein, F-star grants no other

right or license, including any rights or licenses to the F-star IP, or any other Patent or intellectual property rights not otherwise expressly granted herein, whether by implication, estoppel, or otherwise.

6.9 **No Implied Rights**. Except as expressly provided herein, Gamma grants no other right or license, including any rights or licenses to the Gamma IP or any other Patent or intellectual property rights not otherwise expressly granted herein, whether by implication, estoppel or otherwise.

6.10 **Confirmatory Patent License.** Each Party shall, if requested to do so by the other, promptly enter into confirmatory license agreements in the form or substantially the form reasonably requested by the requesting Party for purposes of recording the licenses granted under this Agreement with such patent offices in the Territory as requesting Party considers appropriate.

6.11 **Financial Obligations**. All financial obligations of F-star, including royalties, due from F-star to Third Parties for the F-star IP is the sole responsibility of F-star and all financial obligations of Gamma, including royalties, due from Gamma to Third Parties for the Gamma IP is the sole responsibility of Gamma (provided that following completion by Denali of the acquisition of Gamma, if a sublicense to F-star under Section 6.2 requires or triggers a payment obligation, then F-star is responsible to pay such payment obligation).

6.12 **F-star In-Licenses**. F-star shall timely pay in full all amounts required to be paid by F-star, and timely perform in full all obligations required to be performed by F-star, under all F-star In-Licenses. F-star promptly shall provide Gamma with copies of all notices and other deliveries received under the F-star In-Licenses. Without the prior express written consent of Gamma, F-star shall not (and shall take no action or make no omission to) modify or waive any provision of any F-star In-License that could impair the value of the licenses to Gamma herein, or to terminate or have terminated any F-star In-License. If any F-star In-License is terminated for any reason other than in circumstances where Gamma is in breach of this Agreement, F-star shall use its Commercially Reasonable Efforts to ensure that the licensor thereunder, shall grant a direct license under the F-star IP to Gamma containing

terms and conditions no less favorable to Gamma than the payment terms of such F-star In-License.

ARTICLE 7
PAYMENTS AND RECORDS

7.1 In consideration for the grant of the licence and other rights by F-star to Gamma, Gamma shall make the payments to F-star as provided in this Section 7.

7.2 On an Accepted Fcab Target-by-Accepted Fcab Target basis, unless and until (i) Gamma has exercised its option pursuant to Section 7.5.1 or (ii) completion by Denali of the acquisition of Gamma pursuant to Section 7.5.2:

7.2.1 Gamma shall pay to F-star [***] per cent ([***]%) of any payment made to Gamma under any sub-licence in consideration for:

(a) execution of any sub-licence;

(b) any exclusivity rights granted in the sub-licence; and

(c) [***].

7.2.2 Gamma shall pay to F-star [***] per cent ([***]%) of any other payments (other than those specified in Section 7.2.1 above) made to Gamma, under any sub-licence that in made in respect of an event that [***].

7.2.3 Gamma shall pay to F-star [***] per cent ([***]%) of all payments made to Gamma under any sub-licence made in respect of an event that [***].

7.2.4 Gamma shall pay to F-star [***] per cent ([***]%) of any payments made to Gamma made in respect of an event that [***].

7.3 In the event that certain Products are not sub-licensed by Gamma to a Third Party, unless and until (i) Gamma has exercised its option pursuant to Section 7.5.1 or (ii) completion by Denali of the acquisition of Gamma pursuant to Section 7.5.2; Gamma shall pay to F-star the following milestone payments in respect of any such Product which is not licensed to a Third Party that achieves each such milestone:

(a) [***];

(b) [***];

(c) [***];

(d) [***];

(e) [***]; and

(f) [***].

7.3.2 Gamma shall notify F-star within [***] of its achievement of any milestone and F-star may immediately submit an invoice for the amount due in respect of the achievement of any milestone by Gamma or its sub-licensees.

7.4 Unless and until (i) Gamma has exercised its option pursuant to Section 7.5.1 or (ii) completion by Denali of the acquisition of Gamma pursuant to Section 7.5.2 Gamma shall pay to F-star:

(a) a royalty of [***] per cent ([***]%) on the portion of annual Net Sales of Licensed Products by Gamma or its Affiliates that is between [***] and [***]; and

(b) a royalty of [***] per cent ([***]%) on the portion of annual Net Sales of Licensed Products by Gamma or its Affiliates that is greater than [***].

7.4.2 If Gamma is required to obtain a licence from any Third Party under any [***], and if Gamma is required to pay to such Third Party [***] under such licence in respect of [***] and [***], or if Gamma is required by a court of competent jurisdiction to pay [***] to such a Third Party, then Gamma's obligation to pay the amounts set out in this Section 7.4 with respect to [***] shall be reduced by [***] up to a maximum reduction of [***] per cent ([***]%) of the amount otherwise payable in respect of [***].[***].

7.5 In the event that:

7.5.1 Denali does not exercise its Buy-out Option during the Buy-out Option Period, and a Third Party (other than Denali or an Affiliate of Denali) acquires the entire issued share capital of Gamma, the Parties agree that in substitution for any future amounts that would have been payable by Gamma to F-star pursuant to Sections 7.2, 7.3 and 7.4, Gamma may elect by written notice (such election to be made on or no later than [***] after completion the acquisition) to pay to F-star a sum equal to [***] provided that Gamma shall pay to F-star [***]:

(a) [***]; and

(b) [***].

7.5.2 Denali or an Affiliate of Denali acquires the entire issued share capital of Gamma, the Parties agree that in substitution for any future amounts that would have been payable by Gamma to F-star pursuant to Sections 7.2, 7.3 and 7.4 Gamma shall instead be required to make the following payments:

(a) within [***] after payment of the Initial Amount (as defined in the SPA) to the Sellers under the SPA, Gamma will pay F-star an amount equal to [***]; and

(b) within [***] after any payment of Contingent Consideration (as defined in the SPA) to the Sellers under the SPA, Gamma will pay F-star an amount equal to [***];

Provided always that:

(i) The above amounts payable to F-star shall be payable [***];

(ii) F-star has the same rights to receive payment in respect of the payments set out in parts (a) and (b) of this Section 7.5.2, including as to enforcing such rights, as the Cash Sellers (as defined in the SPA) have to enforce their rights to receive payment in the SPA, and the relevant definitions and other provisions of Schedule 5 of the SPA are incorporated by reference herein to the extent necessary to enable such enforcement by F-star; and

(iii) For clarity, it is acknowledged and agreed that:

(A) The payments are in consideration of the rights granted under this Agreement and not in respect of any Shares (as defined in the SPA);

(B) F-star shall have no rights to any portion of the Estimated Net Cash or any adjustment made pursuant to clause 4.1 of the SPA;

(C) The payments shall be made directly to F-star and not to the Payments Administrator (as defined in the SPA); and

(D) Payments of the amounts hereunder shall not be subject to any allocation with the Sellers.

(the amounts payable pursuant to Sections 7.5.1 or 7.5.2 as the case may be being the "**Acquisition Buyout Payment(s)**").

7.6 If the consideration payable by the Third Party pursuant to Section 7.5.1 is payable in tranches by way of milestone, conditional payments or royalties and Gamma elects to pay the Acquisition Buyout Payment, the amounts payable by Gamma will be due with [***] of the achievement of the relevant milestone event as set out in the relevant sale and purchase

agreement in the case of an acquisition by a Third Party pursuant to Section 7.5.1 and will be made in immediately available funds to such bank account as may be notified to Gamma by F-star for such purposes.

7.7 All invoices shall be billed and payable in Pounds Sterling. Invoices shall be payable within [***] of issue; provided that the Acquisition Buyout Payments made by Gamma following completion by Denali of the acquisition of Gamma shall be paid in U.S. Dollars and in accordance with the times set forth in the SPA.

7.8 Without limiting any other remedy of F-star, if Gamma fails to make any payment by the due date, F-star may charge interest in the amount overdue at the rate of [***], such interest accruing [***].

7.9 **Royalty Payments and Reports.** Gamma shall calculate all amounts payable to F-star pursuant to Section 7 at the end of each Calendar Quarter, which amounts shall be converted to Dollars, in accordance with Section 7.10. Gamma shall pay to F-star the royalty amounts due with respect to a given Calendar Quarter within forty five (45) days after the end of such Calendar Quarter and each such payment once made shall be non-refundable except as expressly provided in Section 7.14. Each payment of royalties due to F-star shall be accompanied by a statement of the amount of Net Sales of each Licensed Product in each country or other jurisdiction in the Territory during the applicable Calendar Quarter (including such amounts expressed in local currency and as converted to Dollars), the applicable royalty rate(s) under this Agreement (including any reduction(s) to such royalty rate(s) under Section 7.4.2) and a calculation of the amount of royalty payment due on such Net Sales for such Calendar Quarter.

7.10 **Mode of Payment.** All payments to either Party under this Agreement shall be made from the US to the UK, without setoff, by deposit of Dollars in the requisite amount to such bank account as F-star may from time to time designate by notice to Gamma. For the purpose of calculating any sums due under, or otherwise reimbursable pursuant to, this Agreement (including the calculation of Net Sales expressed in currencies other than Dollars), a Party shall convert any amount expressed in a foreign currency into Dollar equivalents using its,

its Affiliate's or Sublicensee's standard conversion methodology consistent with Accounting Standards.

7.11 Withholding Taxes. When a Party becomes aware that it will have an obligation to deduct or withhold an amount for or on account of tax from any payment under this Agreement it shall notify the Party who is entitled to receive the payment in writing as soon as reasonably practicable and the Parties shall use their reasonable endeavours to do all such acts and things and to sign all such documents as will enable them to take advantage of any applicable double taxation agreement, treaty or domestic exemption which may apply to eliminate or reduce withholding taxes and otherwise provide the other Party such assistance as is reasonably required to obtain a refund of the withheld or similar taxes, or obtain a credit with respect to such taxes. In the event there is no applicable double taxation agreement, treaty or domestic exemption, or if an applicable double taxation agreement, treaty or domestic exemption reduces but does not eliminate such withholding or similar tax, the payor shall deduct the amount paid from the amount due to the payee, remit such withholding or similar tax to the appropriate tax authority and secure and send to the payee reasonable evidence of the payment of such withholding or similar tax. In the event that any taxes (including without limitation any stamp duties or stamp duty reserve taxes) are required by applicable tax law to be withheld or deducted for or on account of tax from any payments made under this Agreement, any taxes so withheld and deducted from any payment by the payor and paid over to the appropriate government tax authority shall be treated as paid to the payee under this Agreement.

7.12 Indirect Taxes. All payments are exclusive of value added taxes, sales taxes, consumption taxes and other similar taxes (the "**Indirect Taxes**"). If any Indirect Taxes are chargeable in respect of any payments, the paying Party shall pay such Indirect Taxes at the applicable rate in respect of such payments following receipt, where applicable, of an Indirect Taxes invoice in the appropriate form issued by the receiving Party in respect of those payments. The Parties shall issue invoices for all amounts payable under this Agreement consistent with Indirect Tax requirements and irrespective of whether the sums may be netted for settlement purposes. If the Indirect Taxes originally paid or otherwise borne by the paying

Party are in whole or in part subsequently determined not to have been chargeable, all necessary steps will be taken by the receiving Party to receive a refund of these undue Indirect Taxes from the applicable governmental authority or other fiscal authority and any amount of undue Indirect Taxes repaid by such authority to the receiving Party will be transferred to the paying Party within forty-five (45) days of receipt.

7.13 Financial Records. Gamma shall, and shall cause its Sublicensees and Affiliates to, keep complete and accurate books and records pertaining to Net Sales of Licensed Products in sufficient detail to calculate all amounts payable hereunder and to verify compliance with its obligations under this Agreement. Such books and records shall be retained by Gamma and its Sublicensees and Affiliates until [***] after the end of the Calendar Year to which such books and records pertain.

7.14 Audit. At the request of F-star, Gamma shall, and shall cause its Sublicensees and Affiliates to, permit an independent public accounting firm of nationally recognized standing designated by F-star and reasonably acceptable to Gamma, at reasonable times during normal business hours and upon reasonable notice, to audit the books and records maintained pursuant to Section 7.12 to ensure the accuracy of all payment reports and payments made hereunder. Such examinations may not (a) be conducted for any Calendar Quarter more than [***] after the end of such Calendar Year to which such books and records pertain, (b) be conducted more than once in any twelve (12) month period (unless a previous audit during such twelve (12)-month period revealed an underpayment with respect to such period) or (c) be repeated for any Calendar Quarter. The accounting firm shall report to the Parties with reasons whether the reports are correct or not, and the specific details concerning any discrepancies. No other information shall be shared with F-star. Except as provided below, the cost of this audit shall be borne by the auditing Party, unless the audit reveals a variance of more than [***] from the reported amounts, in which case the audited Party shall bear the cost of the audit. Unless disputed pursuant to Section 7.15 below, if such audit concludes that (i) additional amounts were owed by the audited Party, the audited Party shall pay the additional amounts within thirty (30) days, or (ii) excess payments were made by the audited Party, the auditing Party shall reimburse such excess payments, in either case ((i) or (ii)),

within sixty (60) days after the date on which such audit is completed by the auditing Party. The accounting firm shall provide to Gamma a preliminary copy of its audit report, and shall discuss with Gamma any issues or discrepancies that Gamma identifies, prior to submission to F-star.

7.15 **Audit Dispute.** In the event of a dispute with respect to any audit under Section 7.14, F-star and Gamma shall work in good faith to resolve the disagreement. If the Parties are unable to reach a mutually acceptable resolution of any such dispute within thirty (30) days, the dispute shall be submitted for resolution to a certified public accounting firm jointly selected by each Party's certified public accountants or to such other Person as the Parties shall mutually agree (the "**Audit Arbitrator**"). The decision of the Audit Arbitrator shall be final and the costs of such arbitration as well as the initial audit shall be borne between the Parties in such manner as the Audit Arbitrator shall determine. Not later than thirty (30) days after such decision and in accordance with such decision, the audited Party shall pay the additional amounts, or the auditing Party shall reimburse the excess payments, as applicable.

7.16 **Confidentiality.** The receiving Party shall treat all information subject to review under this ARTICLE 7 in accordance with the confidentiality provisions of ARTICLE 9 and the Parties shall cause the Audit Arbitrator to enter into a reasonably acceptable confidentiality agreement with the audited Party obligating such firm to retain all such financial information in confidence pursuant to such confidentiality agreement.

7.17 **Effect of provisions following completion by Denali of the acquisition of Gamma**. Following completion by Denali of the acquisition of Gamma, the following Sections shall be terminated and have no further effect: 7.9, 7.10, 7.13, 7.14, 7.15 and 7.16.

ARTICLE 8
INTELLECTUAL PROPERTY

8.1 Ownership of Intellectual Property.

8.1.1 F-star Ownership. As between the Parties, F-star or an Affiliate of F-star designated by F-star shall Control all right, title, and interest in and to any and all F-star IP and any and all Platform IP.

8.1.2 Gamma Ownership. As between the Parties, Gamma or an Affiliate designated by Gamma shall own all right, title, and interest in and to any and all Gamma IP.

8.1.3 Ownership of Technology. Except as set forth in this Section 8.1.3, as between the Parties, each Party shall own all right, title, and interest in and to any and all: (a) Information and inventions that are conceived, discovered, developed, or otherwise made by or on behalf of such Party (or its Affiliates or Sublicensees) under or in connection with this Agreement, whether or not patented or patentable, and any and all Patents and other intellectual property rights with respect thereto, and (b) other Information, inventions, Patents, and other intellectual property rights that are owned or otherwise Controlled (other than pursuant to the license grants set forth in Section 6.1) by such Party, its Affiliates or its licensees or Sublicensees. Notwithstanding the foregoing F-star shall own all Platform IP and:

(a) **Disclosure Obligation.** Gamma shall promptly disclose to F-star in writing, the conception, discovery, development or making of any Platform Know-How.

(b) **Assignment Obligation.** Gamma, for itself and on behalf of its Affiliates, hereby assigns (and to the extent such assignment can only be made in the future hereby agrees to assign), to F-star all its right, title and interest in and to any Platform Know-How and Platform Patents. Gamma will

execute and record assignments and other necessary documents consistent with such ownership. Gamma shall cause all Persons who perform Technical Development pursuant to the Denali License Agreement to be under an obligation to assign (or, if Gamma is unable to cause such Person to agree to such assignment obligation despite Gamma's using Commercially Reasonable Efforts to negotiate such assignment obligation, provide a license under) its rights in any Information and inventions resulting therefrom to Gamma, except where Applicable Law requires otherwise and except in the case of governmental, not-for-profit and public institutions which have standard policies against such an assignment (in which case a suitable license, or right to obtain such a license, shall be obtained).

8.2 Maintenance and Prosecution of Patents.

8.2.1 F-star Patent Prosecution and Maintenance. F-star shall have the right, but not the obligation, to prepare, file, prosecute, and maintain the F-star Patents and Platform Patents worldwide, at F-star's sole cost and expense.

8.2.2 G**amma Patent Prosecution and Maintenance.** Gamma shall have the right, but not the obligation, to prepare, file, prosecute, and maintain the Gamma Patents worldwide, at Gamma's sole cost and expense. Gamma shall keep F-star reasonably informed of all steps with regard to the preparation, filing, prosecution, and maintenance strategy (including timing of filing, data to be included, and scope of claims of Patent applications) of the Gamma Patents.

8.3 Enforcement of Patents.

8.3.1 Enforcement of F-star Patents. During the Term, F-star shall have the sole and exclusive right, but not the obligation, to enforce and defend worldwide under its control, at its own expense, the F-star Patents and Platform Patents. During the Term, Gamma shall have the sole and exclusive right, but not the obligation,

to enforce and defend worldwide under its control, at its own expense, the Gamma Patents.

8.3.2 **Recovery.** Except as otherwise agreed by the Parties in connection with a cost sharing arrangement, any recovery realized as a result of litigation in relation to the F-star Patents, the Gamma Patents or the Platform Patents (whether by way of settlement or otherwise) shall be first, allocated to reimburse the Parties for their costs and expenses in making such recovery (which amounts shall be allocated pro rata if insufficient to cover the totality of such expenses). Any remainder after such reimbursement is made shall be [***].

8.4 **Invalidity or Unenforceability Defenses or Actions**.

8.4.1 **F-star Patents.** F-star shall have the sole right, but not the obligation, to defend and control the defense of the validity and enforceability of the F-star Patents.

8.4.2 **Gamma Patents.** Gamma shall have the sole right, but not the obligation, to defend and control the defense of the validity and enforceability of the Gamma Patents.

8.5 **Rights and Obligations under the Denali License Agreement.** Both Gamma and F-star acknowledge that certain rights have been granted to Denali in Sections 10.2, 10.3 and 10.4 of the Denali License Agreement. The Parties agree that:

8.5.1 where it or an Affiliate is the owner of the relevant Licensor Background Patents, Licensor Program Patents (including any Selected Fcab Program Patents) or Platform Patents (as each term is defined in the Denali License Agreement) its shall be bound by the obligations of Licensor and benefit from the rights of Licensor in Sections 10.2, 10.3 and 10.4 of the Denali License Agreement;

8.5.2 to the extent that there is conflict between the provisions of this ARTICLE 8 of this Agreement and Sections 10.2, 10.3 or 10.4 of the Denali License Agreement

the provisions of Sections 10.2, 10.3 or 10.4 of the Denali License Agreement shall take precedence; and

8.5.3 the provisions of this Section 8.5 shall terminate automatically on the expiry or termination of the Denali License Agreement.

8.6 **Inventor's Remuneration**. Each Party shall be solely responsible for any remuneration that may be due such Party's inventors under any applicable inventor remuneration laws.

ARTICLE 9
CONFIDENTIALITY AND NON-DISCLOSURE

9.1 **Confidentiality Obligations.** At all times during the Term and for a period of ten (10) years following termination or expiration hereof in its entirety, each Party shall, and each of the foregoing shall cause its Affiliates and its and their respective officers, directors, employees, consultants, contractors and agents to, keep confidential and not publish or otherwise disclose to a Third Party and not use, directly or indirectly, for any purpose, any Confidential Information furnished or otherwise made known to it, directly or indirectly, by the other Party, except to the extent such disclosure or use is expressly permitted by the terms of this Agreement, including exercising rights granted hereunder. Notwithstanding the foregoing, to the extent the receiving Party can demonstrate by documentation or other competent proof, the confidentiality and nonuse obligations under this Section 9.1 with respect to any Confidential Information shall not include any information that:

9.1.1 has been published by a Third Party or otherwise is or hereafter becomes part of the public domain by public use, publication, general knowledge or the like through no wrongful act, fault or negligence on the part of the receiving Party and its Affiliates, to the extent F-star is the receiving Party;

9.1.2 have been in the receiving Party's possession prior to disclosure by the disclosing Party without any obligation of confidentiality with respect to such information;

9.1.3 is subsequently received by the receiving Party from a Third Party without restriction and without breach of any agreement between such Third Party and the disclosing Party;

9.1.4 that is generally made available to Third Parties by the disclosing Party without restriction on disclosure; or

9.1.5 have been independently developed by or for the receiving Party without reference to, or use or disclosure of, the disclosing Party's Confidential Information.

Specific aspects or details of Confidential Information shall not be deemed to be within the public domain or in the possession of the receiving Party merely because the Confidential Information is embraced by more general information in the public domain or in the possession of the receiving Party. Further, any combination of Confidential Information shall not be considered in the public domain or in the possession of the receiving Party merely because individual elements of such Confidential Information are in the public domain or in the possession of the receiving Party unless the combination are in the public domain or in the possession of the receiving Party.

9.2 Permitted Disclosures. Each Party may disclose Confidential Information to the extent that such disclosure is:

9.2.1 in the reasonable opinion of the receiving Party's (or in the event F-star is the receiving Party, the reasonable opinion of F-star GmbH's or F-star Ltd's) legal counsel, required to be disclosed pursuant to law, regulation or a valid order of a court of competent jurisdiction or other supra-national, federal, national, regional, state, provincial and local governmental body of competent jurisdiction, (including by reason of filing with securities regulators, but subject to Section 9.3)); provided, that the receiving Party shall first have given prompt

written notice (and to the extent possible, at least five (5) Business Days' notice) to the disclosing Party and given the disclosing Party a reasonable opportunity to take whatever action it deems necessary to protect its Confidential Information (for example, quash such order or to obtain a protective order or confidential treatment requiring that the Confidential Information and documents that are the subject of such order be held in confidence by such court or governmental body or, if disclosed, be used only for the purposes for which the order was issued). In the event that no protective order or other remedy is obtained, or the disclosing Party waives compliance with the terms of this Agreement, the receiving Party shall furnish only that portion of Confidential Information which the receiving Party is advised by counsel is legally required to be disclosed;

9.2.2 made by or on behalf of the receiving Party or their licensees or sub-licensees to the Regulatory Authorities as required in connection with any filing, application or request for Regulatory Approval in accordance with the terms of this Agreement; *provided*, that reasonable measures shall be taken to assure confidential treatment of such Confidential Information to the extent practicable and consistent with Applicable Law;

9.2.3 subject to written consent of the disclosing Party, made by or on behalf of the receiving Party to a Patent authority as may be reasonably necessary or useful for purposes of obtaining, defending or enforcing a Patent; *provided*, that reasonable measures shall be taken to assure confidential treatment of such Confidential Information, to the extent such protection is available;

9.2.4 made to its or its Affiliates', financial and legal advisors who have a need to know such disclosing Party's Confidential Information and are either under professional codes of conduct giving rise to expectations of confidentiality and non-use or under written agreements of confidentiality and non-use, in each case, at least as restrictive as those set forth in this Agreement; provided that the receiving Party shall remain responsible for any failure by such financial and

legal advisors, to treat such Confidential Information as required under this ARTICLE 9;

9.2.5 made by the receiving Party or its Affiliates to potential or actual investors, acquirers, investment bankers, lenders, as may be necessary in connection with their evaluation of a potential or actual investment in or acquisition of the receiving Party or its Affiliates; *provided*, that such Persons shall be subject to obligations of confidentiality and non-use with respect to such Confidential Information substantially similar to the obligations of confidentiality and non-use of the receiving Party pursuant to this ARTICLE 9;

9.2.6 made by Gamma or its Affiliates or Sublicensees to its or their advisors, consultants, clinicians, vendors, service providers, contractors, existing or prospective collaboration partners, licensees, Sublicensees, or other Third Parties as may be necessary or useful in connection with the Exploitation of any mAb^2, the Licensed Products, or otherwise in connection with the performance of its obligations or exercise of its rights as contemplated by this Agreement; *provided*, that such Persons shall be subject to obligations of confidentiality and non-use with respect to such Confidential Information substantially similar to the obligations of confidentiality and non-use of the receiving Party pursuant to this ARTICLE 9 (with a duration of confidentiality and non-use obligations as appropriate that is no less than five (5) years from the date of disclosure for advisors, consultants, clinicians, vendors, service providers, contractors); or

9.2.7 made by F-star, F-star GmbH, or F-star Ltd or their Affiliates to its or their advisors, consultants, clinicians, vendors, service providers, contractors, and the like as may be necessary in assisting with F-star's activities contemplated by this Agreement (including in relation to the exercise of the rights granted to F-star in Sections 6.2 or otherwise in connection with the performance of its obligations or exercise of its rights as contemplated by this Agreement); *provided*, that such Persons shall be subject to obligations of confidentiality and non-use with respect

to such Confidential Information of Gamma substantially similar to the obligations of confidentiality and nonuse of F-star pursuant to this ARTICLE 9 (with a duration of confidentiality and non-use obligations as appropriate that is no less than five (5) years from the date of disclosure for advisors, consultants, clinicians, vendors, service providers, contractors and the like).

9.3 Public Announcements. Neither F-star, on the one hand, nor Gamma and its Affiliates on the other, shall issue any public announcement, press release, or other public disclosure regarding this Agreement or its subject matter without the other's prior written consent regarding the timing and content, except for any such disclosure that is, in the opinion of the disclosing entity's counsel, required by Applicable Law or the rules of a stock exchange on which the securities of the disclosing entity are listed (or to which an application for listing has been submitted). Prior to the expiration of the Buy-out Period, any such public announcement, press release, or other public disclosure regarding this Agreement shall also require Denali's prior written consent, and after expiration of the Buy-out Period if Denali has not exercised the Buy-out Option, then any such public announcement, press release, or other public disclosure regarding this Agreement shall require Denali's prior written consent if the subject matter is regarding the Denali License Agreement. In the event an entity is, in the opinion of its counsel, required by Applicable Law or the rules of a stock exchange on which its securities are listed (or to which an application for listing has been submitted) to make such a public disclosure, such entity shall submit the proposed disclosure in writing to Gamma or F-star as far in advance as reasonably practicable (and in no event less than seven (7) Business Days prior to the anticipated date of disclosure) so as to provide a reasonable opportunity to comment thereon. Notwithstanding the foregoing, Gamma, its Sublicensees and its and their respective Affiliates shall have the right to publicly disclose research, development and commercial information (including with respect to regulatory matters) regarding mAb^2 and Licensed Products; *provided*, that such disclosure is subject to the provisions of ARTICLE 9 with respect to F-star's Confidential Information and Section 9.5.

9.4 **Publications.** The Parties acknowledge that scientific publications must be strictly monitored to prevent any adverse effect from premature publication of results of the Parties activities hereunder including under any Technical Development, Fcab Discovery or mAb^2 Development.

9.4.1 Prior to the expiration of the Buy-out Option Period neither Party shall make any publications, presentations or public disclosures related to a Gamma Fcab unless agreed in writing by the other Party.

9.4.2 On a mAb^2-by-mAb^2 basis, (a) Gamma shall have the right to make any publications, presentations or public disclosures related to a mAb^2 or the corresponding Licensed Product without the need to seek approval or comment from F-star or F-star Ltd or F-star GmbH, and (b) neither F-star, nor F-star GmbH, F-star Ltd or their respective Affiliates may make any publications, presentations or public disclosures related to a mAb^2 or the corresponding Licensed Product without Gamma's prior written approval.

9.4.3 Before any paper is submitted for publication or an oral presentation is made for which review or approval rights are provided under Section 9.4, the publishing or presenting Party (or F-star Ltd or F-star GmbH or their respective Affiliates, if they are publishing or presenting, collectively, the "**Publishing Party**")) shall deliver a then-current copy of the paper or materials for oral presentation to the non-publishing Party at least thirty (30) days prior to submitting the paper to a publisher or making the presentation where written approval is required and at least fifteen (15) days prior to submitting the paper to a publisher or making the presentation where approval is not required. The non-publishing Party shall review any such paper and give its comments to such Publishing Party within ten (10) days of the delivery of such paper to such other Party. The Publishing Party shall comply with the other Party's request to delete references to the other Party's Confidential Information in any such paper and will withhold publication of any such paper or any presentation of same for an additional sixty (60) days

in order to permit the Parties to obtain Patent protection if such other Party deems it necessary.

9.4.4 Notwithstanding anything herein to the contrary, F-star, F-star GmbH, F-star Ltd, and its and their respective Affiliates shall have the right to make any publications, presentations or public disclosures relating to (a) any Fcabs other than Gamma Fcabs, or (b) any Antibody other than to the extent related to a mAb^2 or Licensed Product, in each case without any approval, review or comments rights by Gamma.

9.5 Return of Confidential Information. Upon the effective date of the termination of this Agreement with respect to any Accepted Fcab Target or Accepted Fab Target for any reason, either Party may request in writing, and the other Party shall either, with respect to Confidential Information to which such first Party does not retain rights under the surviving provisions of this Agreement: (a) as soon as reasonably practicable, destroy all copies of such Confidential Information in the possession of the other Party and confirm such destruction in writing to the requesting Party; or (b) as soon as reasonably practicable, deliver to the requesting Party, at the other Party's expense, all copies of such Confidential Information in the possession of the other Party; *provided*, that the other Party shall be permitted to retain one (1) copy of such Confidential Information for the sole purpose of performing any continuing obligations hereunder, as required by Applicable Law, or for archival purposes. Notwithstanding the foregoing, such other Party also shall be permitted to retain such additional copies of or any computer records or files containing such Confidential Information that have been created solely by such Party's automatic archiving and back-up procedures, to the extent created and retained in a manner consistent with such other Party's standard archiving and back-up procedures, but not for any other use or purpose.

ARTICLE 10
REPRESENTATIONS AND WARRANTIES

10.1 Representations and Warranties of Gamma. Except as set forth in the Disclosure Schedule, Gamma represents and warrants, as of the Effective Date as follows:

10.1.1 **Organization.** Gamma is a corporation duly organized, validly existing, and in good standing under the laws of the jurisdiction of its organization, and has all requisite power and authority, corporate or otherwise, to execute, deliver, and perform this Agreement.

10.1.2 **Authorization.** The execution and delivery of this Agreement and the performance by Gamma of the transactions contemplated hereby have been duly authorized by all necessary corporate action, and do not violate (a) Gamma's charter documents, bylaws, or other organizational documents, (b) in any material respect, any agreement, instrument, or contractual obligation to which such Gamma is bound, (c) any requirement of any Applicable Law, or (d) any order, writ, judgment, injunction, decree, determination, or award of any court or governmental agency presently in effect applicable to Gamma.

10.1.3 **Binding Agreement.** This Agreement is a legal, valid, and binding obligation of Gamma enforceable against it in accordance with its terms and conditions, subject to the effects of bankruptcy, insolvency, or other laws of general application affecting the enforcement of creditor rights, judicial principles affecting the availability of specific performance, and general principles of equity (whether enforceability is considered a proceeding at law or equity).

10.1.4 **No Inconsistent Obligation.** Gamma is not under any obligation, contractual or otherwise, to any Person that conflicts with or is inconsistent in any material respect with the terms of this Agreement, or that would impede the diligent and complete fulfillment of its obligations hereunder.

10.1.5 There are no written claims, judgments, or settlements against, or amounts with respect thereto, owed by Gamma relating to (i) the Gamma Patents, or (ii) the Gamma Know-How. To Gamma's knowledge, no written claim or litigation has been brought or threatened by any Person alleging that (a) the Gamma Patents are invalid or unenforceable, or (b) the Gamma Patents, or the Gamma Know-How, or the disclosing, copying, making, assigning, or licensing of the Gamma

Patents, or the Gamma Know-How as contemplated by this Agreement violates, infringes, misappropriates or otherwise conflicts or interferes with any intellectual property or proprietary right of any Third Party.

10.1.6 To Gamma's knowledge, the use of any Denali Background IP (as defined in the Denali License Agreement) disclosed to F-star for the conduct of the Tfr Fcab Discovery Plan will not infringe, misappropriate, misuse, violate or otherwise make use without authorisation of any Third Party intellectual property nor has any person threatened to Gamma in writing to issue such a notice.

10.2 Representations and Warranties of F-star. F-star represents and warrants to Gamma, as of the Effective Date as follows:

10.2.1 **Organization**. F-star is a limited liability company duly incorporated and validly existing under the laws of England and Wales. F-star has all requisite power and authority, corporate or otherwise, to execute, deliver and perform its respective obligations under this Agreement.

10.2.2 **Authorization.** The execution and delivery of this Agreement and the performance by F-star of the transactions contemplated hereby have been duly authorized by all necessary corporate action, and do not violate (a) F-star's articles of association or other organizational documents, (b) in any material respect, any agreement, instrument, or contractual obligation to which such F-star is bound, (c) any requirement of any Applicable Law, or (d) any order, writ, judgment, injunction, decree, determination, or award of any court or governmental agency presently in effect applicable to F-star.

10.2.3 **Binding Agreement**. This Agreement is the legal, valid and binding obligation of F-star enforceable in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the enforcement of creditors' rights generally and by the

effect of general principles of equity (regardless of whether enforcement is considered in a proceeding in equity or at law).

10.2.4 **No Inconsistent Obligation**. F-star is not under any obligation, contractual or otherwise, to any Person that conflicts with or is inconsistent in any material respect with the terms of this Agreement, or that would impede the diligent and complete fulfillment of its obligations hereunder.

10.2.5 **No Claims**. Except as disclosed by F-star to Gamma in writing in the letter from Licensor to Denali on the Effective Date, there are no written claims, judgments, or settlements against, or amounts with respect thereto, owed by F-star, or to F-star's knowledge by F-star GmbH, F-star Ltd or any of their respective Affiliates, relating to (i) the F-star Patents, or (ii) the F-star Know-How. To F-star's knowledge, no written claim or litigation has been brought or threatened by any Person alleging that (a) the F-star Patents are invalid or unenforceable, or (b) the F-star Patents, or the F-star Know-How, or the disclosing, copying, making, assigning, or licensing of the F-star Patents, or the F-star Know-How as contemplated by this Agreement violates, infringes, misappropriates or otherwise conflicts or interferes with any intellectual property or proprietary right of any Third Party.

10.2.6 **No Misappropriation**. Except as disclosed by F-star to Gamma in writing in the letter from Licensor to Denali on the Effective Date, to the Knowledge of F-star no Person is infringing or misappropriating (i) the F-star Patents, or (ii) the F-star Know-How.

10.2.7 **F-star In-Licenses**. F-star has provided Gamma with complete and correct copies of all F-star In-Licenses, and there have been no modifications, amendments or restatements other than as provided to Gamma prior to the Effective Date. The F-star In-Licenses are in full force and effect in accordance with their terms. After giving effect to this Agreement, there exist no breaches, defaults or events which would (with the giving of notice, the passage of time

or both) give rise to a breach, default or other right to terminate or modify any F-star In-License. F-star has not transferred or granted, and F-star shall not transfer or grant, to any Third Party any license or other interest in the F-star In-Licenses in a manner that would adversely affect any rights of Gamma under this Agreement.

10.3 DISCLAIMER OF WARRANTIES. EXCEPT FOR THE EXPRESS WARRANTIES SET FORTH HEREIN, NONE OF F-STAR, F-STAR LTD, F-STAR GMBH OR GAMMA OR ANY OF THEIR RESPECTIVE AFFILIATES MAKES ANY REPRESENTATIONS OR GRANTS ANY WARRANTIES, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, BY STATUTE OR OTHERWISE, AND EACH PARTY SPECIFICALLY DISCLAIMS ANY OTHER WARRANTIES, WHETHER WRITTEN OR ORAL, OR EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF QUALITY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR USE OR PURPOSE OR ANY WARRANTY AS TO THE VALIDITY OF ANY PATENTS OR THE NON-INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES.

10.4 Covenants.

10.4.1 During the Term, F-star shall not encumber or adversely affect the rights granted to Gamma hereunder with respect to the F-star IP insofar as it relates to the Exploitation of mAb^2 and Licensed Products in a manner that would adversely affect any rights of Gamma under this Agreement.

10.4.2 During the Term, all contracts entered into between F-star or its Affiliates, on the one hand, and F-star GmbH or F-star Ltd or any of their respective Affiliates, on the other hand, shall be in writing and shall be on arms' length terms.

10.5 Gamma Liability After Exercise of Buy-out Option. On [***] of Denali's acquisition of Gamma following the exercise of the Buy-out Option, [***]. By way of examples, (a) [***], and (b) [***].

ARTICLE 11
INDEMNITY

11.1 Indemnification of F-star. Gamma shall indemnify F-star, its Affiliates and their respective directors, officers, employees, and agents (the "**F-star Indemnitees**") and defend and save each of them harmless, from and against any and all losses, damages, liabilities, penalties, costs, and expenses (including reasonable attorneys' fees and expenses) (collectively, "**Losses**") in connection with any and all suits, investigations, claims, or demands of Third Parties (collectively, "**Third Party Claims**") incurred by or rendered against the F-star Indemnitees arising from or occurring as a result of:

(a) the Exploitation of mAb^2 or Licensed Products by or for Gamma or any of its Affiliates, Sublicensees, subcontractors, agents and consultants, on a mAb^2-by-mAb^2 basis during the Term;

(b) the breach by Gamma or its Affiliates of this Agreement; or

(c) the gross negligence or willful misconduct on the part of Gamma or its Affiliates or their respective directors, officers, employees, and agents in performing its or their obligations under this Agreement; or

(d) on an Accepted Fcab Target-by-Accepted Fcab Target basis, the infringement by F-star of any Third Party Patents or Know-How relating to the Accepted Fcab Target, solely to the extent (i) such infringement arose from F-star's conduct of services on behalf of Gamma (and not any subsequent research, development or Commercialization of a Fcab to such Accepted Fcab Target by F-star or any product incorporating any such Fcab), and (ii) Gamma (or in the case that the services are conducted pursuant to the Denali License Agreement, Denali) knew of such Third Party Patents or Know-How at the time the scope of the services were agreed between F-star and Gamma.

except for those Losses for which F-star, in whole or in part, has an obligation to indemnify Gamma pursuant to Section 11.2 hereof, as to which Losses each Party shall indemnify the other to the extent of their respective liability for such Losses.

11.2 Indemnification of Gamma. F-star shall indemnify Gamma, its Affiliates and its and their respective directors, officers, employees, and agents (the "**Gamma Indemnitees**"), and defend and save each of them harmless, from and against any and all Losses in connection with any and all Third Party Claims incurred by or rendered against the Gamma Indemnitees arising from or occurring as a result of:

(a) F-star's (or its Affiliates' or Sublicensees') use or practice of any F-star IP;

(b) the breach by F-star or its Affiliates of this Agreement; or

(c) the gross negligence or willful misconduct on the part of F-star or its Affiliates or its or their respective directors, officers, employees, and agents in performing its obligations under this Agreement;

except for those Losses for which Gamma has an obligation to indemnify F-star pursuant to Section 11.1 hereof, as to which Losses each Party shall indemnify the other to the extent of their respective liability for the Losses.

11.3 Notice of Claim. All indemnification claims in respect of a Party, F-star Ltd, F-star GmbH, and its and their respective Affiliates, or their respective directors, officers, employees and agents shall be made solely by such Party to this Agreement (the "**Indemnified Party**"). The Indemnified Party shall give the indemnifying Party prompt written notice (an "**Indemnification Claim Notice**") of any Losses or discovery of fact upon which such Indemnified Party intends to base a request for indemnification under this ARTICLE 11, but in no event shall the indemnifying Party be liable for any Losses that result from any delay in providing such notice. Each Indemnification Claim Notice must contain a description of the claim and the nature and amount of such Loss (to the extent that the nature and amount of such Loss is known at such time). The Indemnified Party shall furnish

promptly to the indemnifying Party copies of all papers and official documents received in respect of any Losses and Third Party Claims.

11.4 Control of Defense.

11.4.1 In General. At its option, the indemnifying Party may assume the defense of any Third Party Claim by giving written notice to the Indemnified Party within thirty (30) days after the indemnifying Party's receipt of an Indemnification Claim Notice. The assumption of the defense of a Third Party Claim by the indemnifying Party shall not be construed as an acknowledgment that the indemnifying Party is liable to indemnify the Indemnified Party in respect of the Third Party Claim, nor shall it constitute a waiver by the indemnifying party of any defenses it may assert against the Indemnified Party's claim for indemnification. Upon assuming the defense of a Third Party Claim, the indemnifying Party may appoint as lead counsel in the defense of the Third Party Claim any legal counsel selected by the indemnifying Party which shall be reasonably acceptable to the Indemnified Party. In the event the indemnifying Party assumes the defense of a Third Party Claim, the Indemnified Party shall immediately deliver to the indemnifying Party all original notices and documents (including court papers) received by the Indemnified Party in connection with the Third Party Claim. Should the indemnifying Party assume the defense of a Third Party Claim, except as provided in Section 11.4.2, the indemnifying Party shall not be liable to the Indemnified Party for any legal expenses subsequently incurred by such Indemnified Party in connection with the analysis, defense or settlement of the Third Party Claim unless specifically requested in writing by the indemnifying Party. In the event that it is ultimately determined that the indemnifying Party is not obligated to indemnify, defend or hold harmless the Indemnified Party from and against the Third Party Claim, the Indemnified Party shall reimburse the indemnifying Party for any Losses incurred by the indemnifying Party in its defense of the Third Party Claim.

11.4.2 **Right to Participate in Defense.** Without limiting Section 11.4.1, any Indemnified Party shall be entitled to participate in, but not control, the defense of such Third Party Claim and to employ counsel of its choice for such purpose; *provided*, that such employment shall be at the Indemnified Party's own expense unless (a) the employment thereof, and the assumption by the indemnifying party of such expense, has been specifically authorized by the indemnifying Party in writing, (b) the indemnifying Party has failed to assume the defense and employ counsel in accordance with Section 11.4.1 (in which case the Indemnified Party shall control the defense), or (c) the interests of the Indemnified Party and the indemnifying Party with respect to such Third Party Claim are sufficiently adverse to prohibit the representation by the same counsel of both Parties under Applicable Law, ethical rules or equitable principles.

11.4.3 **Settlement.** With respect to any Losses relating solely to the payment of money damages in connection with a Third Party Claim and that shall not result in the Indemnified Party's becoming subject to injunctive or other relief or otherwise adversely affecting the business of the Indemnified Party in any manner, and as to which the indemnifying Party shall have acknowledged in writing the obligation to indemnify the Indemnified Party hereunder, the indemnifying Party shall have the sole right to consent to the entry of any judgment, enter into any settlement or otherwise dispose of such Loss, on such terms as the indemnifying Party, in its sole discretion, shall deem appropriate. With respect to all other Losses in connection with Third Party Claims, where the indemnifying Party has assumed the defense of the Third Party Claim in accordance with Section 11.4.1, the indemnifying Party shall have authority to consent to the entry of any judgment, enter into any settlement or otherwise dispose of such Loss; *provided*, that it obtains the prior written consent of the Indemnified Party (which consent shall not be unreasonably withheld, conditioned or delayed). If the indemnifying Party does not assume and conduct the defense of a Third Party Claim as provided above, the Indemnified Party may defend against such Third Party Claim.

Regardless of whether the indemnifying Party chooses to defend or prosecute any Third Party Claim, no Indemnified Party shall admit any liability with respect to, or settle, compromise or dispose of, any Third Party Claim without the prior written consent of the indemnifying Party, which consent shall not to be unreasonably withheld, conditioned or delayed. The indemnifying Party shall not be liable for any settlement, compromise or other disposition of a Loss by an Indemnified Party that is reached without the written consent of the indemnifying Party, which consent shall not be unreasonably withheld, conditioned or delayed.

11.4.4 **Cooperation.** Regardless of whether the indemnifying Party chooses to defend or prosecute any Third Party Claim, the Indemnified Party shall, and shall cause each indemnitee to, cooperate in the defense or prosecution thereof and shall furnish such records, information and testimony, provide such witnesses and attend such conferences, discovery proceedings, hearings, trials and appeals as may be reasonably requested in connection therewith. Such cooperation shall include access during normal business hours afforded to the indemnifying party to, and reasonable retention by the Indemnified Party of, records and information that are reasonably relevant to such Third Party Claim, and making Indemnified Parties and other employees and agents available on a mutually convenient basis to provide additional information and explanation of any material provided hereunder, and the indemnifying Party shall reimburse the Indemnified Party for all its reasonable out-of-pocket expenses in connection therewith.

11.4.5 **Expenses.** Except as provided above, the reasonable and verifiable costs and expenses, including fees and disbursements of counsel, incurred by the Indemnified Party in connection with any Third Party Claim shall be reimbursed on a Calendar Quarter basis in arrears by the indemnifying Party, without prejudice to the indemnifying Party's right to contest the Indemnified Party's right to indemnification and subject to refund in the event the indemnifying Party is ultimately held not to be obligated to indemnify the Indemnified Party.

11.4.6 **Special, Indirect, and Other Losses.** EXCEPT TO THE EXTENT ANY SUCH DAMAGES ARE REQUIRED TO BE PAID TO A THIRD PARTY AS PART OF A CLAIM FOR WHICH A PARTY PROVIDES INDEMNIFICATION UNDER THIS ARTICLE 11, NEITHER PARTY NOR ANY OF THEIR AFFILIATES SHALL BE LIABLE FOR ANY LOSS OF PROFITS OR BUSINESS INTERRUPTION OR ANY INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING, HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, BREACH OF STATUTORY DUTY OR OTHERWISE IN CONNECTION WITH OR ARISING IN ANY WAY OUT OF THE TERMS OF THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THE USE OF THE LICENSED COMPOUND OR LICENSED PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

11.4.7 **Insurance.** Each Party shall obtain and carry in full force and effect the minimum insurance requirements set forth herein. The types of insurance, and minimum limits shall be: General Liability Insurance with a minimum limit of One Million Dollars ($1,000,000) per occurrence and Two Million Dollars ($2,000,000) in the aggregate. General Liability Insurance shall include, at a minimum, beginning at least thirty (30) days prior to first commercial sale of a Licensed Product, product liability insurance.

11.4.8 **Certificates of Insurance.** Upon request by a Party, the other Party shall provide certificates of insurance evidencing compliance with this Section. The insurance policies shall be under an occurrence form, but if only a claims-made form is available to a Party, then such Party shall continue to maintain such insurance after the expiration or termination of this Agreement for the longer of (a) a period of five (5) years following termination or expiration of this Agreement in its entirety, or (b) with respect to a particular Party, last sale of a Licensed Product

(or but for expiration or termination, would be considered a Licensed Product) sold under this Agreement by a Party.

ARTICLE 12
TERM AND TERMINATION

12.1 **Term.** This Agreement shall commence on the Effective Date and, unless earlier terminated in accordance herewith, shall continue in force and effect until the earlier of the date on which Gamma has no further payment obligations to F-star hereunder.

12.2 **Effect of Expiration of the Term.** Following the expiration of the Term pursuant to Section 12.1, the grants in Sections 6.1, shall become exclusive, fully-paid, royalty-free and irrevocable.

12.3 **Termination for Material Breach.** If either Party (the "**Non-Breaching Party**") believes that the other Party (the "**Breaching Party**") has materially breached one (1) or more of its material obligations under this Agreement, then the Non-Breaching Party may deliver notice of such material breach to the Breaching Party (a "**Default Notice**"). If the Breaching Party fails to cure such breach within [***] after receipt of the Default Notice the Non-Breaching Party may terminate this Agreement to the extent that it relates to the Accepted Fcab Target to which the breach relates, upon written notice to the Breaching Party. In the event that Denali acquires Gamma this Section 12.3 shall no longer apply and F-star shall not have the right to terminate this Agreement under this Section 12.3.

12.4 **Termination for Convenience.** Gamma may terminate this Agreement in its entirety, or on an Accepted Fcab Target-by-Accepted Fcab Target basis, for any or no reason, upon [***] prior written notice to F-star.

12.5 **Termination by F-star for Patent Challenge.** F-star will have the right to terminate this Agreement in full upon written notice to Gamma in the event that Gamma or any of its Affiliates or Sublicensees directly assert in its own respective name or directs a Third Party to assert a Patent Challenge; provided that with respect to any such Patent Challenge by any non-Affiliate Sublicensee, F-star will not have the right to terminate this Agreement under

this Section 12.5 if, within [***] of F-star's notice to Gamma under this Section 12.5, Gamma (a) causes such Patent Challenge to be terminated or dismissed or (b) terminates the sublicense granted to such non-Affiliate Sublicensee. For purposes hereof, "**Patent Challenge**" means any challenge in a legal or administrative proceeding to the patentability, validity, ownership or enforceability of any of the F-star Patents (or any claim thereof), including by: (i) filing or pursuing a declaratory judgment action in which any of the F-star Patents or Platform Patents is alleged to be invalid or unenforceable; (ii) citing prior art against any of the F-star Patents or Platform Patents (other than art required to be cited by Applicable Law, including under a duty of candor to a Patent office), filing a request for or pursuing a re-examination of any of the F-star Patents or Platform Patents (other than with F-star's written agreement), or becoming a party to or pursuing an interference; or (iii) filing or pursuing any opposition, cancellation, nullity or other like proceedings against any of the F-star Patents or Platform Patents; but excluding any challenge raised as a defense or counterclaim against a claim, action or proceeding asserted by F-star or its Affiliates against Gamma or its Affiliates or Sublicensees.

12.6 Rights in Bankruptcy.

12.6.1 Applicability of 11 U.S.C. § 365(n). All rights and licenses (collectively, the "**Intellectual Property**") granted under or pursuant to this Agreement, including all rights and licenses to use improvements or enhancements developed during the Term, are intended to be, and shall otherwise be deemed to be, for purposes of Section 365(n) of the United States Bankruptcy Code (the "**Bankruptcy Code**") or any analogous provisions in any other country or jurisdiction, licenses of rights to "intellectual property" as defined under Section 101(35A) of the Bankruptcy Code. The Parties agree that the licensee of such Intellectual Property under this Agreement shall retain and may fully exercise all of its rights and elections under the Bankruptcy Code, including Section 365(n) of the Bankruptcy Code, or any analogous provisions in any other country or jurisdiction. All of the rights granted to either Party under this Agreement shall

be deemed to exist immediately before the occurrence of any bankruptcy case in which the other Party is the debtor.

12.6.2 Rights of Non-Debtor Party in Bankruptcy. If a bankruptcy proceeding is commenced by or against either Party under the Bankruptcy Code or any analogous provisions in any other country or jurisdiction, the non-debtor Party shall be entitled to a complete duplicate of (or complete access to, as appropriate) any Intellectual Property and all embodiments of such Intellectual Property, which, if not already in the non-debtor Party's possession, shall be delivered to the non-debtor Party within five (5) Business Days of such request; *provided*, that the debtor Party is excused from its obligation to deliver the Intellectual Property to the extent the debtor Party continues to perform all of its obligations under this Agreement and the Agreement has not been rejected pursuant to the Bankruptcy Code or any analogous provision in any other country or jurisdiction.

12.7 Effects of Termination by Gamma without cause or by F-star with cause. In the event of termination of this Agreement in its entirety or on an Accepted Fcab Target-by-Accepted Fcab Target basis by Gamma pursuant to Section 12.4 or by F-star pursuant to Section 12.3 or Section 12.5, the following terms and conditions will apply, provided, however, that if the termination relates only to a particular Accepted Fcab Target basis (a "**Terminated Target**"), then the following provisions will only apply with respect to such Terminated Target:

(a) Except as may otherwise be agreed in writing by the Parties Gamma will be responsible at its own expense for an orderly wind-down, in accordance with accepted pharmaceutical industry norms and ethical practices, of any then ongoing Clinical Studies of any mAb^2 or Licensed Products with respect to a Terminated Target for which it has responsibility;

(b) All rights and licenses granted by F-star relating to the Terminated Target and any corresponding mAb^2 or Licensed Products hereunder shall immediately terminate. Except as expressly set forth in this ARTICLE 12, (i) Gamma and its Affiliates and Sublicensees will have no further rights to use any F-star IP to Exploit any mAb^2 or Licensed Products for which this Agreement has been terminated; (ii) with respect to any mAb^2 or Licensed Product that was the subject of a termination of this Agreement Gamma shall continue to pay any milestone payments that may accrue under Sections 7.2 or 7.5 with respect to such mAb^2 or Licensed Product and will pay any royalty that may accrue under Section 7.2 with respect to such mAb^2 or Licensed Product until expiration of the Royalty Term;

(c) Where the termination has been by F-star pursuant to Section 12.3 then Gamma shall not be entitled to nominate an Accepted Fcab Target to replace the relevant Terminated Targets that were the subject of the termination and in the event that any Terminated Target is an Accepted Fcab Target then the number of Accepted Fcab Target that may be selected by Gamma pursuant to Section 3.1 shall be reduced by the number of Accepted Fcab Targets that are Terminated Targets;

(d) The obligations under ARTICLE 5 shall immediately terminate with respect to the relevant Terminated Target and any mAb^2 or Licensed Products for which this Agreement has been terminated;

(e) Notwithstanding anything herein to the contrary, that all rights and licenses granted or to be granted by Gamma pursuant to Section 6.2.1 or this Section 12.7 shall survive in full force and effect;

(f) Except as set forth in ARTICLE 9, each Party shall return or cause to be returned to the other Party all Confidential Information and all substances or compositions of the other Party or its Affiliates delivered or provided

by or on behalf of such other Party, as well as any other material provided by or on behalf of such other Party in any medium, in connection with such Terminated Target;

(g) Gamma (for itself and its Affiliates) shall grant to F-star (without any further action required on the part of Gamma) the following licenses, except in the case that Denali has acquired Gamma, in which case Gamma shall not grant the following licenses:

(i) a non-exclusive, [***], [***], irrevocable and perpetual license, with the right to grant sublicenses [***] (subject to Section 6.3, *mutatis mutandis*), under Gamma Know-How solely to the extent disclosed in writing to F-star during the Term and [***] to Exploit, and for the sole purpose of Exploiting, any mAb^2 which does not contain a Gamma Proprietary Fab (an "**Available mAb^2**") for the Terminated Target in the Field in the Territory where a "**Gamma Proprietary Fab**" is a Fab where the [***] which is, at the relevant time, the Confidential Information of Gamma.

(ii) an non-exclusive, [***], [***], irrevocable and perpetual license, with the right to grant sublicenses [***] (subject to Section 6.3, *mutatis mutandis*), under Gamma Patents in the Field in the Territory solely to the extent (A) any claims of such Gamma Patents claim or cover [***], and (B) such claims are [***] to Exploit, and for the sole purpose of Exploiting, any Available mAb^2 for the Terminated Target, in the Field in the Territory; and

12.7.2 In the event that Gamma or any of its Affiliates wishes to cease the prosecution or maintenance of any Patents within such Gamma IP in any of the [***], [***], [***], [***], [***], [***] or the [***], Gamma shall promptly notify F-star in writing of such decision to enable F-star [***] to continue such prosecution or maintenance and at the request of F-star assign [***] such Patents to F-star [***];

provided that the foregoing shall not apply in the case that Denali has acquired Gamma.

12.8 Effects of Termination by Gamma with cause. In the event of a termination of this Agreement in its entirety or on an Accepted Fcab Target-by-Accepted Fcab Target basis by Gamma pursuant to Section 12.3, the following terms and conditions will apply, provided, however, that if the termination relates only to a Terminated Target, then the following provisions will only apply with respect to such Terminated Target:

(a) All rights and licenses granted by F-star relating to the mAb^2 or Licensed Products with respect to a Terminated Target hereunder shall immediately terminate. Except as expressly set forth in this ARTICLE 12, Gamma and its Affiliates and Sublicensees will have no further rights to use any F-star IP or Platform IP to Exploit any mAb^2 or Licensed Products for which this Agreement has been terminated;

(b) The obligations under ARTICLE 5 shall immediately terminate with respect to the Terminated Target and the corresponding mAb^2 or Licensed Products for which this Agreement has been terminated; and

12.9 Remedies. Except as otherwise expressly provided herein, termination of this Agreement in accordance with the provisions hereof shall not limit remedies that may otherwise be available in law or equity.

12.10 Accrued Rights; Surviving Obligations.

12.10.1 Termination or expiration of this Agreement for any reason shall be without prejudice to any rights that shall have accrued to the benefit of a Party prior to such termination or expiration, including any amounts due under ARTICLE 7. Such termination or expiration shall not relieve a Party from obligations that are expressly indicated to survive the termination or expiration of this Agreement. Without limiting the foregoing, the following Sections shall survive such termination or expiration Sections 5.3, 6.2, 6.3, 6.4, 6.5, 6.8, 6.9. 6.11, 7.5.2,

10.5, 12.2, 12.7, 12.8, 12.9, 12.10, 13.3, 13.5, 13.6, 13.7, 13.10, 13.11 and ARTICLE 11 and ARTICLE 9.

12.10.2 Notwithstanding the termination of Gamma's licenses and other rights under this Agreement, Gamma shall have the right for one (1) year after the effective date of such termination to sell or otherwise dispose of all mAb^2 or Licensed Product then in its inventory, as though this Agreement had not terminated, and such sale or disposition shall not constitute infringement of F-star's or its Affiliates' Patent or other intellectual property or other proprietary rights. For purposes of clarity, Gamma shall continue to make payments thereon as provided in ARTICLE 7 (as if this Agreement had not terminated).

ARTICLE 13
MISCELLANEOUS

13.1 **Force Majeure.** Neither Party shall be held liable or responsible to the other Party or be deemed to have defaulted under or breached this Agreement for failure or delay in fulfilling or performing any term of this Agreement when such failure or delay is caused by or results from events beyond the reasonable control of the non-performing Party, including fires, floods, earthquakes, hurricanes, embargoes, shortages, epidemics, quarantines, war, acts of war (whether war be declared or not), terrorist acts, insurrections, riots, civil commotion, strikes, lockouts, or other labor disturbances (whether involving the workforce of the non-performing Party or of any other Person), acts of God or acts, omissions or delays in acting by any governmental authority (except to the extent such delay results from the breach by the non-performing Party or any of its Affiliates of any term or condition of this Agreement). The non-performing Party shall notify the other Party of such force majeure within [***] after such occurrence by giving written notice to the other Party stating the nature of the event, its anticipated duration, and any action being taken to avoid or minimize its effect. The suspension of performance shall be of no greater scope and no longer duration than is necessary and the non-performing Party shall use Commercially Reasonable Efforts to remedy its inability to perform.

13.2 **Export Control.** This Agreement is made subject to any restrictions concerning the export of products or technical information from the United States or other countries that may be imposed on the Parties from time to time. Each Party agrees that it will not export, directly or indirectly, any technical information acquired from the other Party under this Agreement or any products using such technical information to a location or in a manner that at the time of export requires an export license or other governmental approval, without first obtaining the written consent to do so from the appropriate agency or other governmental entity in accordance with Applicable Law.

13.3 **Assignment**.

13.3.1 Without the prior written consent of the other Party, such consent not to be unreasonably withheld, conditioned or delayed, no Party shall sell, transfer, assign, delegate, pledge, or otherwise dispose of, whether voluntarily, involuntarily, by operation of law or otherwise, this Agreement or any of its rights or duties hereunder; *provided*, that a Party may make such an assignment without the other Party's consent to (a) [***], or (b) [***]. With respect to an assignment to [***] the assigning Party shall [***]. Any attempted assignment or delegation in violation of this Section 13.3 shall be void and of no effect. All validly assigned and delegated rights and obligations of the Parties hereunder shall be binding upon and inure to the benefit of and be enforceable by and against the successors and permitted assigns of F-star or Gamma, as the case may be. The permitted assignee or transferee shall assume all obligations of its assignor or transferor under this Agreement. Without limiting the foregoing, the grant of rights set forth in this Agreement shall be binding upon any successor or permitted assignee of F-star, and the obligations of Gamma, including the payment obligations, shall run in favor of any such successor or permitted assignee of F-star's benefits under this Agreement.

13.3.2 Notwithstanding anything to the contrary herein, in the event of the acquisition of a controlling (as such term is used in the definition of Affiliate) interest in F-

star or F-star GmbH or Gamma the acquirer of such Person shall not be considered to be an Affiliate of such Person for the purposes of this Agreement including for the purposes of the definition Control in respect of the intellectual property of the Parties and ARTICLE 5. For clarity, any Know-How, Patents or other intellectual property rights or other assets owned or Controlled by an acquirer or its Affiliates before such an acquisition of such Person or which were subsequently generated by the acquirer, or an Affiliate of the acquirer which is not F-star or an Affiliate of F-star immediately prior to the acquisition, will not be Controlled by such Person after such change in Control for purposes of this Agreement or subject to Section 5.1, except to the extent that F-star or F-star GmbH or any of their respective Affiliates owned or Controlled such Know-How, Patents or other intellectual property rights or other assets before such acquisition.

13.4 Severability. If any provision of this Agreement is held to be illegal, invalid, or unenforceable under any present or future law, and if the rights or obligations of either Party under this Agreement will not be materially and adversely affected thereby, (a) such provision shall be fully severable, (b) this Agreement shall be construed and enforced as if such illegal, invalid, or unenforceable provision had never comprised a part hereof, (c) the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid, or unenforceable provision or by its severance herefrom, and (d) in lieu of such illegal, invalid, or unenforceable provision, there shall be added automatically as a part of this Agreement a legal, valid, and enforceable provision as similar in terms to such illegal, invalid, or unenforceable provision as may be possible and reasonably acceptable to the Parties. To the fullest extent permitted by Applicable Law, each Party hereby waives any provision of law that would render any provision hereof illegal, invalid, or unenforceable in any respect.

13.5 Governing Law, Jurisdiction and Service.

13.5.1 Governing Law. This Agreement or the performance, enforcement, breach or termination hereof shall be interpreted, governed by and construed in accordance with the laws of England, excluding any conflicts or choice of law rule or principle that might otherwise refer construction or interpretation of this Agreement to the substantive law of another jurisdiction; *provided*, that all questions concerning the construction or effect of Patents shall be determined in accordance with the laws of the country or other jurisdiction in which the particular Patent has been filed or granted, as the case may be. The Parties agree to exclude the application to this Agreement of the United Nations Convention on Contracts for the International Sale of Goods.

13.5.2 Service. Each Party further agrees that service of any process, summons, notice or document by registered mail to its address set forth in Section 13.7.2 shall be effective service of process for any action, suit, or proceeding brought against it under this Agreement in any such court.

13.6 Dispute Resolution. Except for disputes resolved by the procedures set forth in Section 7.15, if a dispute arises between the Parties in connection with or relating to this Agreement or any document or instrument delivered in connection herewith (a "**Dispute**"), it shall be resolved pursuant to this Section 13.6.

13.6.1 General. Any Dispute shall first be referred to the Senior Officers of the Parties, who shall confer in good faith on the resolution of the issue. Any final decision mutually agreed to by the Senior Officers shall be conclusive and binding on the Parties. If the Senior Officers are not able to agree on the resolution of any such issue within [***] (or such other period of time as mutually agreed by the Senior Officers) after such issue was first referred to them, then, except as otherwise set forth in Section 13.6.2, either Party may, by written notice to the other Party, elect to initiate arbitration proceedings pursuant to the procedures set forth in Section 13.6.3 for purposes of having the matter settled.

13.6.2 **Intellectual Property Disputes.** In the event that a Dispute arises with respect the validity, scope, enforceability, inventorship or ownership of any Patent, trademark or other intellectual property rights, and such Dispute cannot be resolved in accordance with Section 13.6.1, and, unless otherwise agreed by the Parties in writing, such Dispute shall not be submitted to arbitration in accordance with Section 13.6.3 and instead, either Party may initiate litigation in a court of competent jurisdiction, notwithstanding Section 13.5, in any country or other jurisdiction in which such rights apply.

13.6.3 **Arbitration.** Should the informal resolution mechanism of Section 13.6.1 prove unsuccessful within the allotted period, then the Parties shall submit their dispute to binding arbitration before [***]. Each Party shall appoint one arbitrator who at their turn shall nominate the chairperson, who shall be qualified in [***]. If a Party does not appoint its arbitrator within [***] following the expiry of the allotted period, then such arbitrator shall be selected in accordance with the then current rules of the [***]. Any arbitrator so selected shall have substantial experience in the pharmaceutical industry. The arbitration shall be conducted, and all documents submitted to the arbitrators shall be, in English. The arbitrators shall have the power to include an award of attorneys' fees and costs to the prevailing Party, but shall have no power to award punitive, special, incidental or consequential damages. The arbitrator's decision and award shall be final and binding upon all Parties. Subject to any award that the arbitrators may make, each Party shall bear its own costs for its counsel and other expenses, and the Parties shall equally share the costs of the arbitration. Judgment upon the award rendered by arbitration may be issued and enforced by any court having competent jurisdiction.

13.6.4 **Interim Relief.** Notwithstanding anything herein to the contrary, nothing in this Section 13.6 shall preclude either Party from seeking interim or provisional relief, including a temporary restraining order, preliminary injunction or other interim equitable relief concerning a Dispute following the ADR procedures set

forth in Section 13.6.3, if necessary to protect the interests of such Party. This Section shall be specifically enforceable.

13.7 Notices.

13.7.1 Notice Requirements. Any notice, request, demand, waiver, consent, approval, or other communication permitted or required under this Agreement shall be in writing, shall refer specifically to this Agreement and shall be deemed given only if (a) delivered by hand or (b) sent by internationally recognized overnight delivery service that maintains records of delivery, addressed to the Parties at their respective addresses specified in Section 13.7.2 or to such other address as the Party to whom notice is to be given may have provided to the other Party in accordance with this Section 13.7.1. Such notice shall be deemed to have been given as of the date delivered by hand or on the second Business Day (at the place of delivery) after deposit with an internationally recognized overnight delivery service. This Section 13.7.1 is not intended to govern the day-to-day business communications necessary between the Parties in performing their obligations under the terms of this Agreement.

13.7.2 Address for Notice.

If to F-star to:
F-star Biotechnology Ltd.
Eddeva B920 Babraham Research Campus
Cambridge, CB22 3AT
UK
Attention: Chief Business Officer and cc: Head of IP

If to Gamma to:

F-star Gamma Ltd.
Eddeva B920 Babraham Research Campus
Cambridge, CB22 3AT
UK
Attention: Chief Business Officer and cc: Head of IP

with a copy (which shall not constitute notice) to:

Cooley LLP
Dashwood
69 Old Broad Street
London EC2M 1QS
Attention: John Wilkinson

13.8 Entire Agreement; Amendments. This Agreement, together with the Denali License Agreement and the Gamma Support Services Agreement and Schedules attached hereto, sets forth and constitutes the entire agreement and understanding between the Parties with respect to the subject matter hereof and all prior agreements, understandings, promises, and representations, whether written or oral, with respect thereto are superseded hereby (including that certain Confidential Disclosure Agreement between Denali and F-star Ltd dated December 18, 2015; provided that (a) all "Confidential Information" disclosed or received thereunder will be deemed "Confidential Information" hereunder and will be subject to the terms and conditions of this Agreement, and (b) all rights and obligations under such agreement will otherwise continue in full force and effect as provided therein). Each Party confirms that it is not relying on any representations or warranties of the other Party except as specifically set forth in this Agreement. No amendment, modification, release, or discharge shall be binding upon the Parties unless in writing and duly executed by authorized representatives of both Parties.

13.9 English Language. This Agreement shall be written and executed in, and all other communications under or in connection with this Agreement shall be in, the English language. Any translation into any other language shall not be an official version thereof,

and in the event of any conflict in interpretation between the English version and such translation, the English version shall control.

13.10 Waiver and Non-Exclusion of Remedies. Any term or condition of this Agreement may be waived at any time by the Party that is entitled to the benefit thereof, but no such waiver shall be effective unless set forth in a written instrument duly executed by or on behalf of the Party waiving such term or condition. The waiver by either Party hereto of any right hereunder or of the failure to perform or of a breach by the other Party shall not be deemed a waiver of any other right hereunder or of any other breach or failure by such other Party whether of a similar nature or otherwise. The rights and remedies provided herein are cumulative and do not exclude any other right or remedy provided by Applicable Law or otherwise available except as expressly set forth herein.

13.11 No Benefit to Third Parties. Except as provided in ARTICLE 11, covenants and agreements set forth in this Agreement are for the sole benefit of the Parties hereto and their successors and permitted assigns, and they shall not be construed as conferring any rights on any other Persons.

13.12 Further Assurance. Each Party shall duly execute and deliver, or cause to be duly executed and delivered, such further instruments and do and cause to be done such further acts and things, including the filing of such assignments, agreements, documents, and instruments, as may be necessary or as the other Party may reasonably request in connection with this Agreement or to carry out more effectively the provisions and purposes hereof, or to better assure and confirm unto such other Party its rights and remedies under this Agreement.

13.13 Relationship of the Parties. It is expressly agreed that F-star, on the one hand, and Gamma, on the other hand, shall be independent contractors and that the relationship between the Parties shall not constitute a partnership, joint venture, or agency, including for tax purposes. Neither F-star, on the one hand, nor Gamma, on the other hand, shall have the authority to make any statements, representations, or commitments of any kind, or to take any action, which shall be binding on the other, without the prior written consent of the other Party to do so. All persons employed by a Party shall be employees of such Party and not of the other

Party and all costs and obligations incurred by reason of any such employment shall be for the account and expense of such Party.

13.14 Counterparts; Facsimile Execution. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one (1) and the same instrument. This Agreement may be executed by facsimile or electronically transmitted signatures and such signatures shall be deemed to bind each Party hereto as if they were original signatures.

[SIGNATURE PAGES FOLLOW.**]**

THIS AGREEMENT IS EXECUTED by the authorized representatives of the Parties as of the Effective Date.

F-STAR BIOTECHNOLOGY LIMITED

By: /s/ Jane Dancer

Name: Jane Dancer

Title: CBO

F-STAR GAMMA LIMITED

By: /s/ Tolga Hassan

Name: Tolga Hassan

Title: CFO + Co. Sec.

Schedule 1.12

Buy-out Option Agreement

Schedule 1.44

F-star Patents

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

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

SPECIFIC TERMS IN THIS EXHIBIT HAVE BEEN REDACTED BECAUSE CONFIDENTIAL TREATMENT FOR THOSE TERMS HAS BEEN REQUESTED. THE REDACTED MATERIAL HAS BEEN SEPARATELY FILED WITH THE SECURITIES AND EXCHANGE COMMISSION, AND THE TERMS HAVE BEEN MARKED AT THE APPROPRIATE PLACE WITH THREE ASTERISKS [***]

21 May 2018

From: F-star Gamma Limited ("**Gamma**")
Eddeva B920
Babraham Research Campus
Cambridge CB22 3AT

F-star Biotechnology Limited ("**Ltd**")
Eddeva B920
Babraham Research Campus
Cambridge CB22 3AT

F-star Biotechnologische Forschungs-und Entwicklungsges.m.b.h ("**GmbH**")
C/O – F-start Biotechnology Limited
Eddeva B920
Babraham Research Campus
Cambridge CB22 3AT

To: Denali Therapeutics Inc. ("**Denali**")
201 Gateway Boulevard
South San Francisco
CA, United States
Attention: Ryan Watts, CEO

Re: Exercise of Buy-out Option pursuant to the Collaboration Agreements

Dear Ryan,

As you know, since 2016 Denali and F-star have developed a collaborative and productive business relationship. As Denali prepares to execute the Buy-out Option Agreement (as defined in the LCA) pursuant to Section 7.1 of the LCA the Parties have discussed the progress of the Denali Fcabs and have agreed various clarifications and some amendments to the LCA and the Gamma IP Licence.

These clarifications and amendments reflect the precise Fcab development path and timings which has arisen since the original agreements were signed.

Capitalized terms used in this letter agreement (the "**Letter**") but not defined herein have the meanings set forth in the LCA.

"F-star Parties"	means Gamma, GmbH and Ltd
"Gamma IP License"	means the Amended and Restated Gamma IP License Agreement between Ltd and Gamma dated 24 August 2016.
"LCA"	means the License and Collaboration Agreement between Denali, Gamma, GmbH and Ltd dated 24 August 2016
"Second Accepted Fcab Target	means the Target listed as the Second Fcab Target in the table set out in paragraph 1.2.1 of this letter or any Target which replaces such Target following a substitution pursuant to paragraph 1.2.3 of this letter.
"Third Accepted Fcab Target	means the Target listed as the Third Fcab Target in the table set out in paragraph 1.2.1 of this letter or any Target which replaces such Target following a substitution pursuant to paragraph 1.2.3 of this letter.

Based on our recent discussions, Denali and the F-star Parties have agreed as follows. This Letter shall be effective upon signature by all of the parties with a signature line provided below, effective as of the date of the last such signature (the "**Letter Effective Date**").

1.1 **Exclusivity Fees**. The Parties have agreed that no Denali Fcab Delivery Notice has been received by Gamma as of the Letter Effective Date and as such, the requirement that Denali make payments to Gamma pursuant to Section 9.4 or Section 9.5 of the License Agreement has not arisen as of the Letter Effective Date and that, provided Denali acquires the shares of Gamma pursuant to the Buy-Out Option Agreement by 1 September 2018, shall not arise during the process of the Buy-Out Option exercise.

1.2 **Target Nomination and Fcab Selection**.

1.2.1 **Target Selection**. Upon the Letter Effective Date, the following target shall be the second Accepted Fcab Target:

	Second Accepted Fcab Target
Target	[***]
Entrez Gene ID	[***]
HUGO ID	[***]
Common Synonyms	[***]

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request

At any time after the Letter Effective Date (but not later than [***] and subject to Section 1.2.5 of this Letter), Denali shall have the right to nominate the third Accepted Fcab Target using the same gatekeeping process as set out in Article 3 of the Gamma IP Licence. For clarity, Denali is paying the selection payment for the third Accepted Fcab Target in advance pursuant to Section 1.2.2 of this Letter, so no additional selection payment shall be due upon Denali's nomination (or subsequent clearance) of the third Accepted Fcab Target. For clarity, after the nomination (and clearance) of the third Accepted Fcab Target, the substitution right under Section 1.2.3 shall apply to the third Accepted Fcab Target in accordance with the terms of Section 1.2.3.

1.2.2 **Target Selection payment payable to Ltd.** Denali and the F-star Parties hereby agree that (i) [***] Denali shall pay to Ltd the sum of six million dollars ($6,000,000) within [***] hereof; and (ii) the provisions of Section 9.3 of the LCA shall no longer apply.

1.2.3 **Substitution of Accepted Fcab Target**. In addition to Denali's and Gamma's rights to [***] pursuant to [***] and [***] Gamma shall have the right to substitute (i) the Second Accepted Fcab Target [***] and (ii) the Third Accepted Fcab Target [***] on the following terms:

(a) Such substitution may not take place after Denali has given a written request to Ltd to [***] without the prior written consent of Ltd.

(b) Such substitution shall be made using the same process as set out in Article 3 of the Gamma IP Licence except that the Fcab Target Nomination Notice shall name the Accepted Fcab Target being deselected by Gamma and the proposed Accepted Fcab Target being selected by Gamma. Such Fcab Target shall be subject to the same gatekeeping process as set out in Article 3 of the Gamma IP Licence.

(c) On the receipt of the Gatekeeper Notice indicating that the proposed Accepted Fcab Target is not on the Unavailable Target List such proposed Accepted Fcab Target shall become an Accepted Fcab Target in place of the Second or Third (as the case may be) Accepted Fcab Target and the Accepted Fcab Target that was deselected shall cease to be an Accepted Fcab Target.

(d) The Fcab Target Nomination Notice for the substitution of the Second or Third (as the case may be) Accepted Fcab Target according to this paragraph 1.2.3 of this Letter shall be received by Ltd: (i) in respect of the Second Accepted Fcab Target (as set out in the table above), before [***]; and (ii) in respect of the Third Accepted Fcab Target (as set out in the table above), before [***]. Any Fcab Target Nomination Notice received after the relevant date shall be invalid.

(e) For the avoidance of doubt, Denali shall not be entitled to substitute the TfR Accepted Fcab Target.

1.2.4 The Parties shall commence work on the preparation of an Fcab Discovery Plan in respect of the Second Accepted Fcab Target [***] following the [***] and the Parties shall commence work under such Fcab Discovery Plan on the written request of Denali. In the event that Denali has not requested Ltd to commence work under such Fcab Discovery Plan by [***] in respect of the Second Accepted Fcab Target, such Target would cease to be an Accepted Fcab Target and all of Denali's rights and obligations under the LCA or the Gamma IP Licence in respect of the Second Accepted Fcab Target shall cease from such date and none of the F-star Parties shall have any obligation to Denali in respect of it.

1.2.5 The Parties shall commence work on the preparation of an Fcab Discovery Plan in respect of the Third Accepted Fcab Target on the written request of Denali. In the event that Denali has not requested Ltd to commence work under an Fcab Discovery Plan by [***] in respect of the Third Accepted Fcab Target, such Target would cease to be an Accepted Fcab Target and all of Denali's rights and obligations under the LCA or the Gamma IP Licence in respect of the Third Accepted Fcab Target shall cease from such date and none of the F-star Parties shall have any obligation to Denali in respect of it.

1.3 Continuation of the Milestone Payments in respect of the LCA. The Parties to this letter agree that:

1.3.1 The obligation to make payments under Section 9.6 and 9.11 of the LCA shall be deleted from the LCA, and for clarity nothing is therefore owed under Sections 7.5.1 or 7.5.2 of the Gamma IP License with respect to the payments under Section 1.3.2 below.

1.3.2 Denali shall pay to Ltd, on an Accepted Fcab Target basis, the following one-time (per Accepted Fcab Target), [***],[***] milestone payments within [***] days after:

(a) Fcab Delivery: (a) [***] if the Fcab Delivery was in the circumstances described in Section 4.3.1 of the LCA or (b) [***] if the Fcab Delivery was deemed achieved in the circumstances described in Section 4.3.2 of the LCA;

(b) the first initiation of GMP manufacture of a Licensed Product with respect to such Accepted Fcab Target: (i) [***], and (ii) in the case Denali had only paid [***] under Section 1.3.2(a) above for the applicable Fcab Delivery, then an additional [***]; provided that this additional payment under clause (ii) shall only be due one (1) time with respect to a particular Fcab.

1.3.3 **Denali Fcab Payment Reductions.** In the event that for a given Accepted Fcab Target, (i) the Proposed Fcab provided by Ltd to Denali fails to meet the Fcab Delivery Criteria for that Accepted Fcab Target (or Ltd was otherwise unable to provide to Denali a Proposed Fcab during the [***] period after Denali has transferred to Ltd all reagents and assays for Ltd to conduct the antigen validation (e.g. conclusion of Step 1, Antigens of Schedule 1.5.1 of the LCA for the TfR Fcab Discovery Plan or [***]) under the applicable Fcab Discovery Plan); (ii) Denali has provided to Ltd the Denali Fcab Notice with respect to a Denali Fcab for such Accepted Fcab Target; provided that solely for purposes of this Section 1.3.3 of this Letter the parties agree that this Letter will serve as the Denali Fcab Notice for TfR; and (iii) Ltd does not provide to Denali an Fcab against that Accepted Fcab Target which meets the relevant Fcab Delivery Criteria within the later of (a) [***] after Denali has transferred to F-star all reagents and assays for F-star to conduct the antigen validation (e.g. conclusion of Step 1, Antigens of Schedule 1.5.1 of the LCA for the TfR Fcab Discovery Plan or [***]) under the applicable Fcab Discovery Plan, and (b) [***] after the date Denali provides to Licensor the Denali Fcab Notice (the "**Fcab Disclosure Period**"); then all of the payments set out in paragraph 1.3.2 above in respect of the relevant Fcab and any such payment in respect of a mAb^2 incorporating such Fcab shall be reduced by [***] such that the amount payable is [***]. The Parties agree that the Fcab Disclosure Period for TfR Accepted Fcab Target shall expire upon [***]. If the Proposed Fcab for an Accepted Fcab Target failed to meet the Fcab Delivery Criteria, and Ltd subsequently provides to Denali during the Fcab Disclosure Period another Licensor Fcab for validation testing, then Denali shall only be obligated to conduct [***] additional validation experiment(s) for such additional Licensor Fcab, and if such additional Licensor Fcab does not meet the Fcab Delivery Criteria, then Licensor shall be responsible to reimburse Denali for its costs to conduct such additional validation experiment(s) in respect of [***] Licensor Fcab only. In addition, Ltd shall be entitled (but not obliged) to conduct, at its own cost, [***] validation experiment(s) for [***] Licensor Fcab in addition to the [***] Licensor Fcabs that are subject to the validation experiments carried out by Denali, provided such validation experiment(s) is carried out within the Fcab Disclosure Period. The above reduction shall not apply:

(a) if Ltd delivers the sequence of an Fcab against such Accepted Fcab Target which within such period meets or subsequently is found to meet the Fcab Delivery Criteria prior to expiration of the Fcab Disclosure Period for such Accepted Fcab Target, and, upon the date of Fcab Delivery of such an Fcab, Denali shall pay to Ltd the difference between the amounts that were paid in respect of the Denali Fcab and the amounts that would have been paid if Denali had selected a Licensor Fcab. For clarity, if at the time the milestone payment due under Section 1.3.2(b) of this Letter becomes due with respect to an Accepted Fcab Target, Ltd has not yet delivered to Denali a Proposed

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request

Fcab that meets the Fcab Delivery Criteria for that Accepted Fcab Target, and Denali did not select a Licensor Fcab or Joint Fcab for such Accepted Fcab Target for the development of mAb^2 (as evidenced by initiation of GMP manufacture as described in clause (b) below), then the milestone payable under Section 1.3.2(b) by Denali shall be reduced by [***] such that the amount payable is [***], subject to Denali paying to Ltd the difference thereof if Ltd delivers a Fcab during the Fcab Disclosure Period that meets the Fcab Delivery Criteria as provided above in this clause (a);

(b) if, notwithstanding that the Fcab against such Accepted Fcab Target delivered by Ltd did not meet the relevant Fcab Delivery Criteria, Denali nevertheless selects a Licensor Fcab or Joint Fcab for the development of mAb^2 as evidenced by initiation of GMP manufacture for a Licensed Product that incorporates such Licensor Fcab or Joint Fcab; or

(c) in respect of any mAb^2 which contains a Licensor Fcab or a Joint Fcab.

Notwithstanding the final paragraph of this letter or the provisions of Section 13.11 of the Gamma IP Licence, this paragraph 1.3 shall (in addition to the F-star Parties) be for the benefit of and enforceable by the Shareholders of Gamma.

1.4 Technical Development.

1.4.1 Following the Letter Effective Date, the definition of the Technical Development Term in the LCA shall be deleted and replaced by the following: " ***"Technical Development Term"*** *means the Term*"

1.4.2 Following the Letter Effective Date, the definition of the Technical Development Term in the Gamma IP Licence shall be deleted and replaced by the following: " ***"Technical Development Term"*** *means the Term*"

1.4.3 In addition to Gamma's obligations under Section 4.3 of the Gamma IP Licence, Gamma shall, and shall procure that Denali shall, within [***] following the end of each [***] during the Technical Development Term, provide to Ltd (i) [***] and (ii) a [***] during such [***] and the [***]. Gamma's obligations under this Section 1.4.3, including its obligations under Section 4.3 of the Gamma IP License, shall expire upon [***] (as defined in the Gamma IP License).

1.5 **Diligence**. Without limiting Sections 4.2, 4.3, and 4.7 of the LCA, in respect of the second and third Accepted Fcab Targets, following Denali's written request to Ltd to [***], Denali shall [***] to [***] transfer to Gamma [***] and perform [***] and [***]. In addition, Denali shall [***] transfer to Gamma [***] in connection with and as necessary for [***].

1.6 **Gamma IP License**. The parties acknowledge that the first sentence of Section 13.3.2 of the Gamma IP License shall not apply to Denali's acquisition of Gamma, such that following the Completion (as defined in the Buy-Out Option Agreement), Denali shall be an Affiliate of Gamma for purposes of the Gamma IP License.

1.7 **Disclosure Notice**. The Parties acknowledge that concurrently with the execution of this Letter Denali is providing a Disclosure Notice pursuant to the Buy-Out Option Agreement.

Please confirm your agreement to the foregoing by countersigning this Letter below and returning a signed copy to me.

This Letter may be executed in any number of counterparts, each of which when executed shall constitute a duplicate original, but all the counterparts together shall constitute the one agreement.

The provisions of Section 7.10, 7.11 and 7.12 of the Gamma IP Licence shall apply to any payments to be made pursuant to this Letter on the basis that the reference to Party therein, for the purposes of this letter only, [***].

This Letter, including any non-contractual disputes or claims, shall be governed by and construed in accordance with the laws of England and Wales and the provisions of Article 13 of the Gamma IP Licence shall apply to it.

Yours sincerely,

…/s/ John Haurum……
Name: John Haurum, CEO
For and on behalf of **F-STAR GAMMA LIMITED**

…/s/ John Haurum……
Name:
For and on behalf of **F-STAR BIOTECHNOLOGY LIMITED**

…/s/ John Haurum……
Name:
For and on behalf of
F-STAR BIOTECHNOLOGISCHE FORSCHUNGS-UND ENTWICKLUNGSGES.M.B.H

Acknowledged and agreed by:

…/s/ Ryan Watts……
Name: Ryan Watts, CEO
For and on behalf of
DENALI THERAPEUTICS INC.

Exhibit 10.4

EXECUTION VERSION

SPECIFIC TERMS IN THIS EXHIBIT HAVE BEEN REDACTED BECAUSE CONFIDENTIAL TREATMENT FOR THOSE TERMS HAS BEEN REQUESTED. THE REDACTED MATERIAL HAS BEEN SEPARATELY FILED WITH THE SECURITIES AND EXCHANGE COMMISSION, AND THE TERMS HAVE BEEN MARKED AT THE APPROPRIATE PLACE WITH THREE ASTERISKS [***]

DATED **30 May 2018**

DENALI THERAPEUTICS INC. (1)

THE SELLERS (2)

and

SHAREHOLDER REPRESENTATIVE SERVICES LLC (as the Sellers' Representative) (3)

SHARE PURCHASE AGREEMENT

relating to the entire issued share capital of

F-STAR GAMMA LIMITED

COOLEY (UK) LLP, DASHWOOD, 69 OLD BROAD STREET, LONDON EC2M 1QS, UK
T: +44 (0) 20 7583 4055 F: +44 (0) 20 7785 9355 WWW.COOLEY.COM

CONFIDENTIAL

CONTENTS

Agreed Form Documents

1. Disclosure Letter
2. Escrow Agreement
3. Loan Notes Instrument
4. Press Release

THIS SHARE PURCHASE AGREEMENT is executed and delivered as a **DEED** on 30 May 2018

BETWEEN:

(1) **THE PERSONS**, whose names and addresses are set out in Schedule 1 (the "**Sellers**");

(2) **DENALI THERAPEUTICS INC.**, a corporation organised and existing under the laws of the State of Delaware, United States, having its principal place of business at 201 Gateway Boulevard, South San Francisco, California, United States (the "**Buyer**"); and

(3) **SHAREHOLDER REPRESENTATIVE SERVICES LLC**, a Colorado limited liability company and which is a party to this Agreement solely in its capacity as representative of the Sellers (the "**Sellers' Representative**").

WHEREAS:

(A) The Company is a private limited liability company incorporated under the laws of England and Wales and engaged in the delivery of therapeutics across the blood brain barrier.

(B) As at the date of this Agreement, the Sellers own the Shares that constitute the entire issued share capital of the Company. The Sellers have agreed to sell to the Buyer, and the Buyer has agreed to purchase and accept, the Shares on the terms of this Agreement.

IT IS AGREED as follows:

1. INTERPRETATION

1.1. Definitions

In this Agreement:

"**Accepted Fcab Target**"	is defined in Schedule 5 (*Contingent Consideration*);
"**Accounting Policies**"	means the accounting policies and procedures set out in Part C of Schedule 4 (*Accounting Policies*);
"**Accounts**"	means the Company's individual accounts (as that term is used in sections 394 and 395 of the Companies Act) and cash flow statement for the financial year ended on the Last Accounting Date, the auditors' report on those accounts, the directors' report for that year and the notes to those accounts;
"**Actual Net Cash**"	has the meaning given to it in Schedule 4.
"**ADR**"	has the meaning given to it in clause 23.2;
"**Affiliate**"	means, with respect to a party, any Person that, directly or indirectly, through one (1) or more intermediaries, controls, is controlled by or is under common control with such Party. For purposes of this definition, "**control**" and, with correlative meanings, the terms "**controlling**", "**controlled by**" and "**under common control with**" means (a) the possession, directly or indirectly, of the power to direct the management or policies of a Person, whether through the ownership of voting securities, by contract relating to voting rights or corporate governance, or otherwise; or (b) the ownership, directly or indirectly, of more than fifty percent (50%) of the voting securities or other ownership interest of a Person (or, with respect to a limited partnership or other similar entity, its general partner or controlling entity). The parties acknowledge that in the case of certain entities organized under the laws of certain countries outside of the United States, the maximum percentage ownership permitted by law for a foreign investor may be less than fifty percent (50%), and that in such case such lower percentage shall be substituted in the preceding sentence, provided that such foreign investor has the power to direct the management or policies of such entity. "**Affiliates**" shall be construed accordingly;
"**Business Day**"	means a day (other than a Saturday or Sunday) on which banks generally are open for business in London, UK;
"**Business Warranty**"	means [***];
"**Business Warranty Claim**"	means a claim by the Buyer for breach of a Business Warranty;

"**Buyer's Account**"	means the bank account notified by the Buyer to the Sellers' Representative from time to time;
"**Buyer's Group**"	means the Buyer and the Buyer's Group Undertakings;
"**Buyer's Group Undertaking**"	means the Buyer or an undertaking which is a subsidiary undertaking or parent undertaking of the Buyer or a subsidiary undertaking of a parent undertaking of the Buyer and, for the avoidance of doubt, includes the Company from Completion, and "**Buyer's Group Undertakings**" shall be construed accordingly;
"**Cash**"	means the aggregate of all cash held by the Company immediately following Completion, but excluding the Pass Through Amount;
"**Cash Sellers**"	means each of the Sellers other than the Loan Note Sellers;
"**Claim**"	means any Business Warranty Claim, Tax Warranty Claim, Special Indemnity Claim (including any Fraud Claim), Warrantor Fundamental Warranty Claim and/or Fundamental Warranty Claim, and "**Claims**" means any two or more of them;
"**Company**"	means F-star Gamma Limited, a private limited company incorporated under the laws of England and Wales under company number 10214672, having its registered office at Eddeva B920, Babraham Research Campus, Cambridge CB22 3AT;
"**Company Confidential Information**"	means any Information or data relating to any Fcab or mAb2 Product, any Exploitation of any Fcab or mAb2 Product, any Know-How with respect thereto developed by or on behalf of Company or its Affiliates, or the scientific, regulatory or business affairs or other activities of the Company;
"**Completion**"	means completion of the sale and transfer of the Shares to the Buyer in accordance with the terms of this Agreement;
"**Completion Accounts**"	means the Draft Completion Accounts which have been agreed or determined in accordance with Part A of Schedule 4 (*Preparation of Completion Accounts*);
"**Completion Date**"	means the date on which Completion occurs;
"**Contingent Consideration**"	has the meaning given to it in paragraph 1 of Part A of Schedule 5 (*Contingent Consideration*);
"**Contingent Consideration Loan Notes**"	means the loan notes which may become issuable by the Buyer to certain of the Sellers following Completion pursuant to clause 3.5 and/or paragraph 2.3 of Schedule 5 (*Contingent Consideration*), to be constituted by the Loan Notes Instrument;
"**control**"	has the meaning given to it in section 1124 of the Corporation Tax Act 2010 and "**controlling**" shall be construed accordingly;

"**Declared Distributions**"	means all dividends and other distributions resolved or declared to be paid or made, by the Company in respect of the Shares by reference to a record date which falls on or before Completion;
"**Defaulting Party**"	has the meaning given to it in clause 5.4;
[***]	has the meaning given to it in the definition of "**Initial Amount**";
"**Denali Fcab Notice**"	has the meaning given to it in the License Agreement;
[***]	has the meaning given to it in the definition of "**Initial Amount**";
"**Determination Date**"	means the date on which the Completion Accounts are agreed or determined in accordance with the provisions of Part A of Schedule 4 (*Preparation of Completion Accounts*);
"**Develop**" or "**Development**"	has the meaning given to it in the License Agreement;
"**Disclosure Documents**"	means the documents attached to the Disclosure Letter;
"**Disclosure Letter**"	means the letter from the Warrantors to the Buyer in relation to the Warranties and including the Disclosure Documents having the same date as this Agreement, the receipt of which has been acknowledged by the Buyer;
"**Dispute**"	has the meaning given to it in clause 23.1;
"**Disputed Business Warranty Claim**"	means any Business Warranty Claim that is not yet a Settled Business Warranty Claim, and "**Disputed Business Warranty Claims**" shall be construed accordingly;
"**Draft Completion Accounts**"	means a statement of assets and liabilities for the Company as at the Effective Time, in the form and with the line items set out in Part B of Schedule 4 (*Completion Accounts*) and which has been prepared in accordance with Part A of Schedule 4 (*Preparation of Completion Accounts*);
"**Effective Time**"	means 5 p.m. (London time) on the Completion Date;
"**Encumbrance**"	means a mortgage, charge, pledge, lien, option, restriction, right of first refusal, right of pre-emption, third-party right or interest, other encumbrance or security interest of any kind, or another type of preferential arrangement (including a title transfer or retention arrangement) having similar effect, including any such right or interest arising at Completion or otherwise in connection with this Agreement, and "**Encumbrances**" shall be construed accordingly;
"**Escrow Account**"	means the separately designated interest bearing US dollar deposit account with SunTrust Bank opened by the Escrow Agent and operated in accordance with the Escrow Agreement into which payment of the Escrow Amount will be made by the Buyer at Completion;

"**Escrow Agent**"	means SunTrust Bank to be appointed pursuant to the Escrow Agreement;
"**Escrow Agreement**"	means the agreement in the agreed form between the Buyer, the Sellers' Representative and the Escrow Agent in relation to the Escrow Account;
"**Escrow Amount**"	means [***];
"**Estimated Net Cash**"	means such amount in US dollars as is notified in writing by the Sellers to the Buyer no later than 10 Business Days prior to the Completion Date that is the good faith estimate by the Sellers of the Net Cash as at the Effective Time;
"**Exercise Notice**"	has the meaning given to it in the Option Agreement;
"**Exploitation**"	has the meaning given to it in the License Agreement;
"**F-star**"	means F-star Biotechnology Limited, a private limited company incorporated under the laws of England and Wales under company number 08067987, having its registered office at Eddeva B920, Babraham Research Campus, Cambridge CB22 3AT;
"**F-star GmbH**"	means F-star Biotechnologische Forschungs-und entwicklungsges.m.b.h, a limited liability company incorporated under the laws of the Republic of Austria;
"**Fairly Disclosed**"	has the meaning given to it in clause 7.5;
"**Fcab Delivery**"	is defined in Schedule 5 (*Contingent Consideration*);
"**Fraud Claim**"	means a claim in respect of fraud, wilful misconduct or wilful concealment by any of Warrantors (individually or on behalf of the Company) prior to Completion;
"**Fundamental Warranty**"	Means [***] and "**Fundamental Warranties**" means [***];
"**Fundamental Warranty Claim**"	means a claim by the Buyer for breach of a Fundamental Warranty;
"**Gamma IP License**"	means that certain license agreement between the Company and F-star dated 24 August 2016;
"**Gamma Service Agreement**"	means that certain services agreement between the Company and F-star dated 24 August 2016;
"**Guaranteed Obligations**"	means all present and future payment obligations and liabilities of the Company due, owing or incurred under clause 7.5.2 of the Gamma IP License to F-star (including, without limitation, under any amendment, supplement or restatement of the Gamma IP License; provided such amendment, supplement or restatement shall not increase the obligations of the Buyer without the express consent of the Buyer);
"**HMRC**"	means HM Revenue & Customs;

"**Indebtedness**"	means the aggregate amount (expressed as a positive number) immediately following Completion of the following:

a) the principal and accrued interest on any outstanding borrowing or indebtedness in the nature of borrowing incurred by the Company including, without limitation, bank debt, loans, overdrafts, guarantees of indebtedness, letters of credit (which are secured by a third party), any loan notes or bonds, any other interest bearing and/or secured lending or credit liabilities provided by third parties to the Company and any early repayment, prepayment, or break costs, fees or penalties in respect of any such items and any legal costs and expenses in connection with the release of security in relation to any such borrowings;

b) all deferred indebtedness of the Company for the payment of the purchase price of property or assets purchased or services rendered (other than up to [***] of trade payables and other current liabilities incurred in the ordinary course of business);

c) all obligations of the Company to pay rent or other payment amounts under any lease up to and including the Completion Date;

d) reimbursement obligations of the Company with respect to letters of credit, bankers' acceptances or similar facilities issued for the account of the Company and that are outstanding as at the Completion Date;

e) all obligations under any interest rate swap agreement, forward rate agreement, interest rate cap or collar agreement or other financial agreement or arrangement to which the Company is a party and which was entered into for the purpose of limiting or managing interest rate risks,

f) all obligations secured by any Encumbrance existing on property owned by the Company;

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

g) all premiums, penalties, fees, expenses, breakage costs and change of control payments required to be paid or offered in respect of any of the foregoing clauses (b) through (e) as a result of the consummation of the transactions contemplated by this Agreement or in connection with any lender consent;

h) all guaranties, endorsements, assumptions and other contingent obligations of the Company in respect of, or to purchase or to otherwise acquire, any of the obligations and other matters of the kind described in any of the clauses (a) through (g) appertaining to third parties; and

i) all liabilities for Taxes incurred by the Company up to, but not paid by, Completion;

"**Information**" means all knowledge of a technical, scientific, business and other nature, including know-how, technology, means, methods, processes, practices, formulae, instructions, skills, techniques, procedures, experiences, ideas, technical assistance, designs, drawings, assembly procedures, computer programs, apparatuses, specifications, data, results and other material, regulatory data, and other biological, chemical, pharmacological, toxicological, pharmaceutical, physical and analytical, pre-clinical, clinical, safety, manufacturing and quality control data and information, including study designs and protocols, reagents (*e.g.*, plasmids, proteins, cell lines, assays and compounds) and biological methodology; in each case (whether or not confidential, proprietary, patented or patentable, of commercial advantage or not) in written, electronic or any other form now known or hereafter developed;

"**Initial Amount**" means, where the Buyer serves an Exercise Notice on the Sellers' Representative and the Company in accordance with the Option Agreement:

a) on a date prior to both [***];

b) on a date that is [***];

c) on a date that is [***]; or

d) after the time period in paragraph (c) above of this definition, [***];

"**Intellectual Property**	means all intellectual property rights, whether registered or not, including pending applications for registration of such rights and the right to apply for registration or extension of such rights including patents, petty patents, utility models, design patents, designs, copyright (including moral rights and neighbouring rights), database rights, rights in integrated circuits and other sui generis rights, trade marks, trading names, company names, service marks, logos, the get-up of products and packaging and other signs used in trade, internet domain names, Know How and any rights of the same or similar effect or nature as any of the foregoing anywhere in the world;
"**Know How**"	means any and all data, inventions, methods, proprietary information, processes, trade secrets, techniques and technology, whether patentable or not but which are not generally known, including discoveries, formulae, materials (including chemicals), biological materials (including expression constructs, nucleic acid sequences, amino acid sequences, and cell lines), practices, test data (including pharmacological, toxicological, pre-clinical and clinical information and test data), analytical and quality control data (including drug stability data), manufacturing technology and data (including formulation data), and sales forecasts, data and descriptions;
"**Last Accounting Date**"	means 31 December of the financial year on which the Company's last audited financial statements and accounts were last required to be filed with the UK Registrar of Companies;
"**License Agreement**"	means that certain license and collaboration agreement among the Buyer, the Company, F-star GmbH and F-star, dated 24 August 2016;
"**Loan Note Escrow Account**"	means the separately designated interest bearing US dollar deposit account with SunTrust Bank opened by the Escrow Agent and operated in accordance with the Escrow Agreement into which payment of such amounts as required by clause 3.6 will be made by the Buyer;
"**Loan Note Sellers**"	each of the Sellers in Schedule 1 marked with an asterisk (*);
"**Loan Notes Instrument**"	means the loan notes instrument to be issued by the Buyer in the agreed form;
"**Management Accounts**"	means the unaudited monthly management accounts of the Company in respect of the period starting on the day after the Last Accounting Date and ending on the last day of the calendar month preceding the date of this Agreement for which such accounts have been prepared;
"**Material Contract**"	has the meaning given to it in clause 7.1.1 of Schedule 7;

"**Maximum Contingent Consideration**"	means: a) in the event of a [***], provided that if an Initial Payment True Up Event subsequently occurs, then the Maximum Contingent Consideration will be [***]; b) in the event of a [***], provided that if an Initial Payment True Up Event subsequently occurs, then the Maximum Contingent Consideration will be [***]; c) in the event of a [***]; or d) in the event of a [***];
"**Net Cash**"	means an amount (which may be a positive or a negative number) equal to the Cash less the Indebtedness, less Transaction Costs and less Declared Distributions;
"**Non-defaulting Party**"	has the meaning given to it in clause 5.4;
"**Notice**"	has the meaning given to it in clause 20.1;
"**Option Agreement**"	means that certain option agreement related to the entire issued share capital of the Company among Buyer, the Company, the Sellers, and the Sellers' Representative, dated 24 August 2016;
"**Pass Through Amount**"	means amounts payable by the Company to F-star pursuant to (i) clause 7.5.2 of the Gamma IP License that have been received by the Company from the Buyer pursuant to the License Agreement but not paid to F-star as of the Completion Date;
"**Payments Administrator**"	means Acquiom Clearinghouse LLC, a Delaware limited liability company;
"**Payment Date**"	has the meaning given to it in paragraph 1 of Part A of Schedule 5 (*Contingent Consideration*);
"**Person**"	means an individual, sole proprietorship, partnership, limited partnership, limited liability partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture or other similar entity or organization, including a government or political subdivision, department or agency of a government;
[***]	has the meaning given to it in the definition of "**Initial Amount**";
[***]	has the meaning given to it in the definition of "**Initial Amount**";
"**Preliminary Determination Proceeding**"	has the meaning given to it in paragraph 11.2 of Schedule 8 (*Limitations on Sellers' Liability*);
"**Press Release**"	means a press release regarding Completion in a form agreed between the Buyer and the Sellers;
"**Proportion of Initial Consideration**"	has the meaning given to it in clause 3.9;
"**Release Date**"	means the date which is [***] from Completion;

"**Relevant Shares**"	means, in relation to each Seller, the number and class of Shares held as at Completion set out adjacent to that Seller's name in columns B and C of Schedule 1 (*The Sellers*);
"**Relief**"	means any loss, relief, exemption, allowance, deduction, credit or set-off in respect of Tax or relevant to the computation of Tax and any right to repayment of Tax;
"**Sellers' Majority**"	means such of the Sellers who, immediately prior to Completion, together held not less than a majority in number of the Shares (as determined by reference to the Shares set out adjacent to each relevant Seller's name in column B of Schedule 1 (*The Sellers*));
"**Set Off Claim**"	has the meaning given to it in paragraph 11.2 of Schedule 8 (*Limitations on Sellers' Liability*);
"**Set Off Dispute Notice**"	has the meaning given to it in paragraph 11.2 of Schedule 8 (*Limitations on Sellers' Liability*);
"**Set Off Notice**"	has the meaning given to it in paragraph 11.2 of Schedule 8 (*Limitations on Sellers' Liability*);
"**Settled Business Warranty Claim**"	means a Business Warranty Claim or part of a Business Warranty Claim the quantum of which is: a) agreed in writing between the Buyer and the Sellers' Representative; b) determined by [***] court of competent jurisdiction; or c) determined pursuant to the procedures set forth in clause 23.3;
"**Settled Claim**"	means a Settled Business Warranty Claim, or a Special Indemnity Claim, Fundamental Warranty Claim, or Warrantor Fundamental Warranty Claim (or part thereof), the quantum of which is: a) agreed in writing between the Buyer and the Sellers' Representative; b) determined by [***] court of competent jurisdiction; or c) determined pursuant to the procedures set forth in clause 23.3;
"**Shareholders' Agreement**"	means the shareholders' agreement between the Shareholders and the Company dated 24 August 2016;
"**Shareholder Arrangements**"	means any advisory, contractual or commercial arrangements relating to the Company (including the existing shareholders agreement relating to the Company) to which any or all of the Sellers and/or any of their Affiliates are a party (excluding any employment agreement or consultancy agreement between those Sellers who are employees or consultants and the Company);
"**Shares**"	means all of the issued ordinary shares in the capital of the Company from time to time;

"**Shortfall**"	has the meaning given to it in clause 5.1(a);
[***]	has the meaning given to it in clause 6.3;
"**Special Indemnity Claim**"	means a claim in respect of any of the Special Indemnity Matters and "**Special Indemnity Claims**" shall be construed accordingly;
"**Special Indemnity Matter**"	means [***] and "**Special Indemnity Matters**" means [***];
"**Tax**", "**Taxes**" or "**Taxation**"	means all forms of taxation, duties and withholdings in respect of taxation imposed in the United Kingdom or elsewhere (including National Insurance contributions) and all interest, penalties, charges and fines in respect of any of them;
"**Tax Authority**"	means HMRC and any other authority, body or official (whether in the United Kingdom or elsewhere) competent to assess, demand, impose, administer or collect Tax or make any decision or ruling on any matter relating to Tax;
"**Tax Warranty**"	means [***] and "**Tax Warranties**" means [***];
"**Tax Warranty Claim**"	means a claim in respect of any breach of any of the Tax Warranties;
"**Third Party**"	has the meaning given to it in the License Agreement;
"**Total Consideration**"	has the meaning given to it in clause 3.1;
"**Total Contingent Consideration**"	has the meaning given to it in paragraph 1 of Part A of Schedule 5 (*Contingent Consideration*);
"**Transaction Costs**"	means all third party fees, costs, expenses, payments, and expenditures incurred by the Company in connection with the transactions contemplated by this Agreement whether or not billed or accrued (including any fees, costs expenses, payments, and expenditures of legal counsel and accountants, the maximum amount of fees costs, expenses, payments, and expenditures payable to financial advisors, investment bankers and brokers of the Company notwithstanding any contingencies for earnouts, escrows, etc., and any such fees, costs, expenses, payments, and expenditures incurred by the Sellers paid for or to be paid for by the Company);
"**Transaction Documents**"	means this Agreement, the Option Agreement, the License Agreement, the Gamma IP License, the Loan Note Instrument, the Disclosure Letter, the Escrow Agreement and the Gamma Service Agreement;
"**Upfront Consideration**"	has the meaning given to it in clause 3.2;
"**Warrantor Fundamental Warranties**"	means [***];
"**Warrantor Fundamental Warranty Claim**"	means a claim by the Buyer for breach of a Warrantor Fundamental Warranty;

"**Warrantors**"	means [***], save that if any such person ceases to be employed or otherwise engaged by F-star GmbH (or any of its Affiliates) in a management position or ceases to own (legally or beneficially) Shares then they shall cease to be a Warrantor and shall be replaced as a Warrantor by the person then performing the role of [***], or, in any case, by such person as the Company, acting reasonably, may nominate in writing *provided that* such person owns Shares (legally or beneficially), performs a senior management role in the Company and the Buyer consents to the appointment, such consent not to be unreasonably withheld, conditioned or delayed, and a "**Warrantor**" means any one of them; and
"**Warranty**"	means [***] and "**Warranties**" means [***].

1.2. Clause, Schedule and paragraph headings shall not affect the interpretation of this Agreement.

1.3. References to clauses and Schedules are to the clauses and Schedules of this Agreement and references to paragraphs are to paragraphs of the relevant Schedule.

1.4. The Schedules form part of this agreement and shall have effect as if set out in full in the body of this Agreement. Any reference to this agreement includes the Schedules.

1.5. A "**subsidiary**" or "**holding company**" is to be construed in accordance with section 1159 (and Schedule 6) of the Companies Act and a "**subsidiary undertaking**" or "**parent undertaking**" is to be construed in accordance with section 1162 (and Schedule 7) of the Companies Act;

1.6. A **person** includes a natural person, corporate or unincorporated body (whether or not having separate legal personality).

1.7. A reference to a **party** shall include that party's personal representatives, successors and permitted assigns.

1.8. Unless the context otherwise requires, words in the singular shall include the plural and in the plural shall include the singular.

1.9. Unless the context otherwise requires, a reference to one gender shall include a reference to the other genders.

1.10. A reference to writing or written includes fax and e-mail (unless otherwise expressly provided in this Agreement).

1.11. The *ejusdem generis* principle of construction shall not apply to this Agreement. Accordingly, any words following the terms **including**, **include**, **in particular**, **for example** or any similar expression shall be construed as illustrative and shall not limit the sense of the words, description, definition, phrase or term preceding those terms. Where the context permits, **other** and **otherwise** are illustrative and shall not limit the sense of the words preceding them.

1.12. A reference to a document in this Agreement in the **agreed form** is to a document agreed by the parties and initialled by them or on their behalf for identification purposes.

1.13. Where any obligation in this Agreement is expressed to be undertaken or assumed by any party, that obligation is to be construed as requiring the party concerned to exercise all rights and powers of control over the affairs of any other person which it is able to exercise (whether directly or indirectly) in order to secure performance of the obligation.

1.14. References to any English legal term for any action, remedy, method of judicial proceeding, legal document, legal status, court, official or any other legal concept shall, in respect of any jurisdiction other than England, be deemed to include the legal concept which most nearly approximates in that jurisdiction to the English legal term.

1.15. A reference to a statute or statutory provision is a reference to it as amended, extended or re-enacted from time to time.

1.16. References to "**US$**" or "**$**" are references to US dollars, legal tender in the United States, and references to "**GBP**" or "**£**" are references to pounds sterling, legal tender in the United Kingdom.

2. SALE AND PURCHASE

2.1. Each Seller severally agrees to sell or procure the sale to the Buyer, and the Buyer agrees to buy, all of such Seller's Relevant Shares together with all rights attaching to those Relevant Shares at Completion, free from any Encumbrance and with full title guarantee.

2.2. Each Seller severally waives all rights of pre-emption, rights of first refusal and any other similar rights or other restrictions on transfer conferred on that Seller by the Company's articles of association or otherwise over any of the Relevant Shares.

2.3. The Buyer shall be responsible for the payment of all stamp duty (and, if applicable, stamp duty reserve tax) on this Agreement and the transfers in respect of the Shares at Completion.

2.4. In the event that the Buyer becomes aware that it or the Escrow Agent will have an obligation to deduct or withhold an amount for or on account of Taxes from any payment made under this Agreement, it shall notify the Sellers' Representative in writing as soon as reasonably

practicable and the parties shall use their reasonable endeavours to do, to the extent within their power and authority, all such acts and things and to sign all such documents as will enable them to take advantage of any applicable double taxation agreement, treaty or domestic exemption which may apply to eliminate or reduce withholding Taxes and otherwise provide the Sellers such assistance as is reasonably required to obtain a refund of the withheld or similar Taxes, or obtain a credit with respect to such Taxes. In the event there is no applicable double taxation agreement, treaty or domestic exemption or if an applicable double taxation agreement, treaty or domestic exemption reduces but does not eliminate such withholding or similar Tax, the Buyer or Escrow Agent shall deduct the amount paid from the amount due to the respective Seller or Sellers, remit such withholding or similar Tax to the appropriate Tax Authority and secure and send to the respective Seller or Sellers reasonable evidence of the payment of such withholding or similar Tax. In the event that any Taxes are required by applicable Tax law to be withheld or deducted for or on account of Tax from any payments made under this Agreement, any Taxes so withheld and deducted from any payment by the Buyer or the Escrow Agent and paid over to the appropriate Tax Authority shall be treated as paid to the Sellers under this Agreement.

3. CONSIDERATION

3.1. The purchase price for the Shares shall be an amount equal to:

(a) the Upfront Consideration; and

(b) any Contingent Consideration,

(collectively, the "**Total Consideration**").

Upfront Consideration

3.2. The aggregate consideration payable by the Buyer to the Sellers for the Shares pursuant to this Agreement on the Completion Date shall be:

(a) the Initial Amount; plus

(b) the Estimated Net Cash,

(the amount set out in clause 3.2(a) plus the amount set out in clause 3.2(b) being the "**Initial Consideration**"), as increased by the amount to be paid by the Buyer or, as the case may be, decreased by the amount to be paid by the Sellers, pursuant to clause 4.1 (the total sum being referred to as the "**Upfront Consideration**).

3.3. At Completion, the Buyer shall pay:

(a) an amount in cash equal to the Initial Consideration less the Escrow Amount, by transfer of funds for same day value to the Payments Administrator in accordance with clause 13.1; and

(b) the Escrow Amount into the Escrow Account by transfer of funds for same day value.

3.4. The parties agree to comply with their respective obligations under Part A of Schedule 4 (*Preparation of Completion Accounts*).

Contingent Consideration

3.5. If any of the Milestone Events set forth in Schedule 5 (*Contingent Consideration*) are achieved, the Buyer will make the corresponding Milestone Payment to the Payments Administrator for further distribution to the Sellers on or prior to the Payment Date. Any Contingent Consideration payable to the Sellers shall be allocated between the Sellers with regard to their respective Proportion of Initial Consideration or as otherwise notified to the Buyer in writing by the Sellers' Representative at least five (5) Business Days prior to a Payment Date and shall be satisfied:

(a) in respect of the Loan Note Sellers, by the issue by the Buyer of the Contingent Consideration Loan Notes to each of the Loan Note Sellers equal, in principal amount, to the relevant Contingent Consideration due to such Loan Note Sellers; and

(b) in respect of the Cash Sellers, by paying the relevant Contingent Consideration due to each of the Cash Sellers to the Payments Administrator in accordance with clause 13 on a Payment Date.

3.6. Simultaneously with the issue by the Buyer of any Contingent Consideration Loan Notes to the Loan Note Sellers in accordance with clause 3.5(a), the Buyer shall transfer to the Loan Note Escrow Account an amount equal to the total aggregate principal amount of such Contingent Consideration Loan Notes, which amount (together with any interest accrued thereon) shall be released by the Escrow Agent to the Loan Note Sellers within five (5) Business Days following redemption of such Contingent Consideration Loan Notes in accordance with the Loan Note Instrument. The Escrow Agent may withdraw from the Loan Note Escrow Account an amount equal to any Tax on the interest earned in respect of money held in the Loan Note Escrow Account for which it is liable.

3.7. The Total Contingent Consideration shall not under any circumstances exceed the Maximum Contingent Consideration.

3.8. The Buyer shall (and shall procure that all relevant Buyer's Group Undertakings shall) comply with the provisions of Schedule 5 (*Contingent Consideration*).

3.9. The proportion of the Initial Consideration, to which each Seller is entitled is set against his name in column D of Schedule 1 (*The Sellers*) (each, a "**Proportion of Initial Consideration**").

Consideration Generally

3.10. Each Seller agrees to the allocation of the Total Consideration as provided for in this Agreement (including any allocation notified to the Buyer by the Sellers' Representative pursuant to clause 3.5) and waives any claim or dispute regarding the apportionment of the proceeds from the sale of his Shares provided it is made in accordance with this Agreement. Following any payment to the Payments Administrator in accordance with this Agreement, the Buyer shall be under no obligation to see that any such amounts are divided and paid to each Seller (or any other person).

3.11. If, after Completion, any Seller is in or comes into possession of any amounts attributable to any other Seller then as soon as reasonably practicable following any request by the Seller which has the right to such amounts, the relevant Seller shall use all reasonable endeavours to ensure that the person in possession of that relevant amount does or causes to be done all such things as the Seller entitled to such amount may from time to time reasonably require, in order to transfer possession of such relevant amount to the owner.

4. POST COMPLETION ADJUSTMENTS

4.1. If the amount of the Actual Net Cash:

(a) is less than the amount of the Estimated Net Cash, then, subject to clause 5.3, the Sellers shall pay the Buyer an amount equal to the amount of such shortfall (the "**Shortfall**"); or

(b) exceeds the amount of the Estimated Net Cash, the Buyer shall pay the Sellers an amount equal to the amount of such excess,

in either case, together with an amount equal to interest on such sum calculated on a daily basis at a rate of [***] from (and including) the Completion Date to (but excluding) the date of actual payment, in accordance with the provisions of clauses 4.2 and 4.3.

4.2. Payments made by the Buyer pursuant to clause 4.1(b) shall be made by transfer of funds for same day value (to the Payments Administrator in accordance with clause 13.1), within two (2) Business Days of the Determination Date without set off, deduction or withholding (except as required by law or by this Agreement).

4.3. If an amount is payable by the Sellers pursuant to clause 4.1(a), such amount shall be paid from the Escrow Account to the Buyer when the Buyer and the Sellers' Representative within

two (2) Business Days of the Determination Date jointly instruct the Escrow Agent in writing to make such payment out of amounts standing to the credit of the Escrow Account to the Buyer's Account in accordance with clause 13.2.

5. COMPLETION

5.1. Completion shall take place at the offices of the Seller's Solicitors immediately following the execution of this Agreement.

5.2. At Completion each Seller and the Buyer shall do all those things respectively required of each of them in Schedule 3 (*Completion Requirements*).

5.3. Neither the Sellers nor the Buyer are obliged to complete this Agreement unless:

(a) all of the Sellers (in the case of the Buyer) or the Buyer (in the case of the Sellers) comply with all its/their obligations under this clause 5 and Schedule 3 (*Completion Requirements*); and

(b) subject to the provisions of clause 7 of the Option Agreement, the purchase of all the Shares under this Agreement is completed simultaneously.

5.4. If Completion does not take place immediately following the execution of this Agreement because the Buyer or any Seller (the "**Defaulting Party**") fails to comply with any of its obligations under this clause 5 and Schedule 3 (*Completion Requirements*) (whether such failure amounts to a repudiatory breach or not) (a "**Material Default**"), the Buyer (if the Defaulting Party is a Seller) or the Company (if the Defaulting Party is the Buyer) (the "**Non-defaulting Party**") may by notice to the Defaulting Party:

(a) proceed to Completion to the extent reasonably practicable (without limiting its rights under this Agreement);

(b) postpone Completion to such date as the Non-defaulting Party may specify; or

(c) terminate this Agreement by notice in writing to the Defaulting Party (a "**Termination Notice**") save that the Non-defaulting Party shall have five (5) Business Days from receipt of the Termination Notice to remedy such Material Default (provided, however, that no such cure period shall be available or applicable to any such Material Default which by its nature cannot be cured). In the event that the Material Default is capable of being remedied but is not so remedied within the requisite time period, this Agreement shall terminate upon expiry of the period of five (5) Business Days without further action by either party. If the Material Default is remedied within the requisite time, the Termination Notice shall lapse and

Completion shall be deemed to have been postponed until such date as the Non-defaulting Party may determine.

5.5. If the Non-defaulting Party postpones Completion to another date in accordance with clause 5.4(b), or if Completion is deemed to have been postponed to another date in accordance with clause 5.4(c), the provisions of this Agreement apply as if that other date is the Completion Date.

5.6. If the Non-defaulting Party terminates this Agreement pursuant to clause 5.4(c), each party's further rights and obligations cease immediately on termination, but termination does not affect a party's accrued rights and obligations at the date of termination.

5.7. The parties agree that except in the case of fraud, wilful misconduct or wilful concealment on behalf of the Sellers or the Buyer, rescission shall not be available as a remedy for any breach of this Agreement.

5.8. Nothing in this clause 5 shall prevent a Non-defaulting Party from exercising remedies available to it under applicable law.

6. ESCROW ACCOUNT

6.1. Each party agrees that the money in the Escrow Account shall only be used in accordance with the provisions set out in clause 4, this clause 6, paragraph 5 of Part A of Schedule 4 (*Preparation of Completion Accounts*) and the Escrow Agreement.

6.2. Each party shall ensure that all rights to the Escrow Account remain free from any Encumbrance, set off or counterclaim except as referred to in this clause 6.

6.3. The liability of any Warrantor in respect of [***] shall be limited by the amount of money standing to the credit of the Escrow Account from time to time and the sole remedy of the Buyer under this Agreement in respect of a [***] shall be the release of any such amount to the Buyer from the Escrow Account.

6.4. A [***] must be satisfied out of and deducted from the money in the Escrow Account in accordance with this clause 6 and a Shortfall must be first satisfied out of and deducted from the money in the Escrow Account in accordance with this clause 6. In addition, in the event of [***].

6.5. To the extent that liability for [***] is to be satisfied from the Escrow Account, each Warrantor shall be [***] liable to the Buyer for such liability up to the availability of any amount standing to the credit of the Escrow Account from time to time irrespective of the amount (if any) contributed to the Escrow Account by such Warrantor.

6.6. No Warrantor shall have any liability to any other Seller in respect of any liability satisfied from the Escrow Account.

6.7. Clauses 6.3 and 6.6 shall not apply so as to limit the liability of any Warrantor in respect of any fraud by such Warrantor or any remedy available to any other Seller or the Buyer in respect thereof.

6.8. Interest accruing from time to time on the balance of money standing to the credit of the Escrow Account shall be added to the money standing to the credit of the Escrow Account and shall form part of it for the purposes of this clause 6.

6.9. All of the costs (including reasonable legal costs) and expenses (together with any applicable VAT), in each case, of any nature whatsoever, of the Escrow Agent in relation to the Escrow Account and the Escrow Agreement shall be deemed to be Transaction Costs.

6.10. The Escrow Agent may withdraw from the Escrow Account an amount equal to any Tax on the interest earned in respect of money held in the Escrow Account for which it is liable.

6.11. On the Release Date, the money then standing to the credit of the Escrow Account less the total of the then outstanding Disputed Business Warranty Claims and less any amount that has not yet been paid in accordance with clause 4 or paragraph 5 of Part A of Schedule 4 (*Preparation of Completion Accounts*) shall be paid to the Payments Administrator in accordance with clause 13.1. After that date, to the extent that the money standing to the credit of the Escrow Account from time to time exceeds the total of the then outstanding Disputed Business Warranty Claims and any amount that has not yet been paid in accordance with clause 4 or paragraph 5 of Part A of Schedule 4 (*Preparation of Completion Accounts*), that money shall be paid to the Payments Administrator in accordance with clause 13.1.

6.12. If the Sellers or the Buyer are entitled to money from the Escrow Account under clauses 6.4 or 6.11, the Sellers' Representative and the Buyer shall within five (5) Business Days of the date on which the entitlement arises jointly instruct the Escrow Agent in writing to release the money to the Payments Administrator in accordance with clause 13.1 or the Buyer, as the case may be, together with an amount (less any Tax and other amount the Escrow Agent is legally required to deduct from that amount) equal to the interest actually accrued on such sum calculated for the period from (and including) the date of this Agreement to (but excluding) the date of payment.

6.13. All payments made to the Buyer by the Escrow Agent under this clause 6 shall be made gross and without deduction or withholding of any kind other than any deduction or withholding required by law.

6.14. The amount, if any, of the Escrow Amount which is paid to the Buyer pursuant to clause 4.2 or this clause 6 shall be treated as a reduction in the Total Consideration.

6.15. The Sellers agree between themselves that any amounts released to the Payments Administrator for further distribution to the Sellers from the Escrow Account shall be apportioned between them by reference to their respective contribution initially made to the Escrow Amount (as set out in column F of the table in Schedule 1 (*The Sellers*).

7. SELLER WARRANTIES AND INDEMNITY

7.1. Each Seller (i) [***] warrants [***] to the Buyer in the terms of the Fundamental Warranties at Completion and, subject to clause 7.4, the Tax Warranties at Completion; and (ii) subject to the limitations set forth in Schedule 8 (*Limitations on the Sellers' Liability*) agrees [***], and on a pro rata basis in accordance with each Seller's Proportion of Initial Consideration, to indemnify the Buyer against any losses, costs, claims, liabilities, damages, demands and expenses arising out of any Special Indemnity Matter save where such losses, costs, claims, liabilities, damages, demands and/or expenses are a result of any action or omission by or on behalf of the Buyer (or any Buyer's Group Undertaking) or due to the Buyer's (or any Buyer's Group Undertaking's) gross negligence, wilful misconduct or wilful concealment.

7.2. Each Warrantor [***] warrants [***] to the Buyer in the terms of the Warrantor Fundamental Warranties at Completion.

7.3. Subject to clause 7.4, each Warrantor [***] warrants to the Buyer on the terms of the Business Warranties at Completion.

7.4. [***]. For the avoidance of doubt, [***].

7.5. [***].

7.6. Where [***] is qualified by the expression "so far as the Warrantors are aware" or "to the best of the knowledge, information and belief of the Warrantors" or qualified by any similar expression, each Warrantor shall be deemed only to have knowledge of anything of which [***].

7.7. Each Seller agrees and undertakes to the Buyer and to each person referred to in this clause 7.7 that, except in the case of fraud, it will not make any claim against the Company or any director, officer or employee of the Company on whom it may have relied before agreeing any term of this Agreement or any of the transaction contemplated by this Agreement which it may have in respect of a misrepresentation, inaccuracy or omission in or from information or advice provided by any such person for the purpose of assisting any such Seller to make a representation, give a Warranty or prepare the Disclosure Letter (as applicable). After

Completion, the Company or any director, officer or employee of the Company may enforce the terms of this clause 7.7 subject to and in accordance with [***].

7.8. [***].

8. LIMITATIONS TO THE SELLERS' LIABILITY

8.1. Each Seller's liability for [***] and each Warrantor's liability for [***] shall be limited or excluded, as the case may be, as set out in clause 7 and Schedule 8 (Limitations on the Sellers' Liability).

8.2. Except as stated in this Agreement, the Buyer shall not be restricted from including as part of any Claim any losses, costs, claims, liabilities, damages, demands and/or expenses [***].

9. BUYER'S WARRANTIES

The Buyer warrants to each Seller as at Completion that:

9.1. it is a company duly incorporated and validly existing in the State of Delaware, United States and has the right, power and authority to execute, deliver and perform its obligations under this Agreement and any other Transactional Document to be executed by it;

9.2. the Buyer's obligations under this Agreement and any other Transactional Documents to be executed by the Buyer are, or when the relevant document is executed will be, enforceable in accordance with their terms, subject to the effects of bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar laws relating to or affecting creditors' rights generally and general equitable principles;

9.3. the execution, delivery and performance by the Buyer of this Agreement and each Transactional Document to be executed by it will not breach any provision of the certificate of incorporation or bylaws of the Buyer or breach any applicable laws or regulations, or any orders, judgements or decrees which the Buyer is bound by or result in a breach of or constitute a default under any instrument, contract or agreement to which the Buyer is a party or by which the Buyer is bound and which, in each case, is material in the context of the transactions contemplated by this Agreement and any of the Transactional Documents; and

9.4. it has available on an unconditional basis (subject only to Completion) the necessary resources to meet its obligations under this Agreement, other than payment of the Contingent Consideration.

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

10. POST COMPLETION MATTERS

10.1. Each Seller agrees in respect only of itself that the Seller shall, for so long as the Seller remains the registered holder of any of the Relevant Shares after Completion, hold those Relevant Shares with all rights and benefits attaching or accruing to them on or after the date of this Agreement as bare trustee for the Buyer absolutely.

10.2. For a period of [***] after Completion each Seller hereby irrevocably undertakes to the Buyer pending registration by the Company of the transfer of the Seller's Relevant Shares to the Buyer, to exercise any votes attaching to any of the Seller's Relevant Shares or sign any consent to short notice of a general meeting (or written resolution in lieu thereof) as the Buyer may reasonably direct.

10.3. Each Seller acting severally shall execute and shall procure the execution of, all documents and deeds and/or do or procure the doing of, all acts and things that the Buyer reasonably requires after Completion to vest in the Buyer legal title to and the full benefit of the Relevant Shares held by such Seller.

10.4. Subject to clause 10.5, each of the Sellers (for itself and for and on behalf of each of its Affiliates) hereby irrevocably agrees that, with effect from and conditional upon Completion:

(a) the Shareholder Arrangements are hereby terminated;

(b) any and all rights of any Seller and/or any of its Affiliates and any and all obligations of the Company under, pursuant to or in connection with the Shareholder Arrangements, along with any other claim or demand of any Seller or any of its Affiliates against the Company, which are subsisting or outstanding at the date of this Agreement are expressly waived and released, including any and all such rights and obligations, claims and demands which may have accrued in respect of any period prior to Completion; and

(c) any and all other debts or liabilities (whether actual, contingent or prospective and including any interest thereon) of the Company to any Seller under, pursuant to or in connection with the Shareholder Arrangements or otherwise which are subsisting or outstanding at the date of this Agreement are expressly waived, released and discharged.

10.5. Each Seller shall ensure that at Completion there will be no amounts owing by the Company to such Seller in respect of itself and its Affiliates only, other than by way of accrued but unpaid salary or consultancy fees or unreimbursed expenses incurred in the ordinary course of business consistent with past practice owed to employees or consultants of the Company.

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

10.6. The Buyer shall, within 20 Business Days of Completion, procure that the name of the Company is changed to such name as the Buyer may decide provided that it does not include the word "F-star".

10.7. The Buyer intends to make an election under Section 338(g) of the United States Internal Revenue Code of 1986, as amended (the "**IRC**") (and any corresponding election under state and local Tax law) with respect to the purchase of the Shares under this Agreement (collectively, the "**Section 338 Election**"). The Buyer may make the Section 338 Election in its sole discretion; provided, however, that the Sellers shall not be liable in respect of a Tax Warranty Claim for any liability of the Company for Taxes arising directly or indirectly from the Section 338 Election and the Buyer shall indemnify the Sellers and the Company on an after-Tax basis against any Tax liability, losses and all reasonable costs and expenses of the Sellers or the Company which arise directly or indirectly as a result of the Section 338 Election being made excluding any Tax liability, losses or costs and expenses that would have not have arisen had all of the Tax Warranties made by the Company and Sellers been true, correct and complete. In addition, in the case of any Seller, the calculation of any increase in Tax liability of such Seller resulting from the Section 338 Election shall be made assuming (a) that such Seller and any of its direct or indirect owners has made a timely and valid election under Section 1295 of the U.S. Internal Revenue Code of 1986, as amended (the "**Code**") and the regulations thereunder to treat its shares in the Company as a "qualified electing fund" within the meaning of Section 1295 effective with the first day of such Seller's holding period in the Company's shares and (b) that the Company is not, and has not at any time during the five (5) taxable years preceding the Completion Date, been a "controlled foreign corporation" within the meaning of Section 957 of the IRC. For clarify, Purchaser shall not be required under this Section 10.7 to indemnify the Company or any Seller for any Tax liability that would not have arisen had a Seller (or its direct or indirect owners) elected to treat the Company as a qualified electing fund and/or had the Company not been a controlled foreign corporation, as described in the previous sentence.

11. BUYER GUARANTEE

11.1. Following Completion, the Buyer guarantees to F-star, whenever the Company does not pay any of the Guaranteed Obligations when due, to pay within 5 Business Days following receipt of written demand from F-star, the Guaranteed Obligations.

11.2. Following Completion, the Buyer as principal obligor and as a separate and independent obligation and liability from its obligations and liabilities under clause 11.1 agrees to indemnify and keep indemnified F-star in full and on written demand from and against all and any losses, costs, claims, liabilities, damages, demands and expenses suffered or incurred by F-star arising directly out of the Guaranteed Obligations not being recoverable for any

reason or any failure of the Company to pay any of its obligations or liabilities in respect of the Guaranteed Obligations.

11.3. This guarantee is and shall cover the ultimate balance from time to time owing to F-star by the Company in respect of the Guaranteed Obligations.

11.4. The liability of the Buyer under this clause 11 shall not be terminated by:

(a) any intermediate payment, settlement of account or discharge in part of the Guaranteed Obligations;

(b) any variation, extension, discharge, compromise, dealing with, exchange or renewal of any right or remedy which F-star may now or after the date of this guarantee have from or against any of the Company and any other person in connection with the Guaranteed Obligations;

(c) any amendment, variation, novation, replacement or supplement of or to any of the Guaranteed Obligations;

(d) any grant of time, indulgence, waiver or concession to the Company or any other person;

(e) any insolvency, bankruptcy, liquidation, administration, winding up, incapacity, limitation, disability, the discharge by operation of law, or any change in the constitution, name or style of the Company, F-star, or any other person;

(f) any claim or enforcement of payment from the Company or any other person; or

(g) any act or omission which would not have discharged or affected the liability of the Buyer had it been a principal debtor instead of a guarantor, or indemnifier or by anything done or omitted by any person which, but for this provision, might operate to exonerate or discharge the Buyer or otherwise reduce or extinguish its liability under this guarantee.

11.5. Any release, discharge or settlement between the Buyer and F-star in relation to this guarantee shall be conditional on no right, disposition or payment to F-star by the Buyer, the Company or any other person in respect of the Guaranteed Obligations being avoided, set aside or ordered to be refunded under any enactment or law relating to breach of duty by any person, bankruptcy, liquidation, administration, protection from creditors generally or insolvency or for any other reason.

11.6. If any right, disposition or payment referred to in clause 11.5 is avoided, set aside or ordered to be refunded, F-star shall be entitled subsequently to enforce this guarantee against the

Buyer as if such release, discharge or settlement had not occurred and any such right, security, disposition or payment had not been given or made.

11.7. F-star shall be entitled to enforce this clause 11 against the Buyer as if it were a party to this Agreement.

12. SELLERS' REPRESENTATIVE

12.1. Each Seller hereby irrevocably and unconditionally appoints the Sellers' Representative as sole representative agent and attorney-in-fact to act on such Seller's behalf for all purposes relating to this Agreement after Completion and each agreement and document ancillary thereto, including for the purposes of:

(a) accepting and giving notices on behalf of such Seller;

(b) making elections and granting any consent or approval on behalf of such Seller under this Agreement;

(c) approving and executing any document on behalf of such Seller to give effect to the release of any money then standing to the credit of the Escrow Account;

(d) defending, negotiating, compromising, settling and releasing on behalf of such Seller any rights and claims (including legal proceedings) which the Buyer may threaten or pursue in respect of any breach of, or right under, this Agreement or any other Transactional Document;

(e) confirming the allocation between the Sellers of the Contingent Consideration to be made under this Agreement;

(f) enforcing, negotiating, compromising, settling and releasing on behalf of such Seller any rights and claims (including legal proceedings and ADR) which he may have, threaten or pursue against the Buyer (or any other person) in respect of any breach of, or right under, this Agreement or any other Transactional Document or any Dispute;

(g) consent or agree to any amendment to this Agreement or to waive any terms and conditions of this Agreement providing rights or benefits to the Sellers (other than with respect to the payment of the Total Consideration) in accordance with the terms hereof and in the manner provided herein;

(h) taking any and all actions that may be necessary or desirable in connection with the payment by the Sellers of the costs and expenses incurred under this Agreement; and

(i) generally taking any and all other actions and doing any and all other things provided in or contemplated by this Agreement and each agreement and document ancillary thereto to be performed by such Seller or the Sellers' Representative.

12.2. Each Seller hereby irrevocably (by way of security for the performance of his obligations under this Agreement) appoints the Sellers' Representative as its agent with full authority on his behalf and in the Seller's name, as applicable, or otherwise, to do all acts and to execute and deliver such documents or deeds as are required by law or as may, in the reasonable opinion of the Sellers' Representative, be required or convenient to give effect to the matters described in clause 12.1.

12.3. The Sellers' Representative shall act in good faith in accordance with what the Sellers' Representative believes to be the best interests of the Sellers when exercising any power or authority conferred on under this clause 12.

12.4. Save in the event of fraud, any action undertaken or omitted by the Sellers' Representative with the written approval of a Sellers' Majority shall be conclusively deemed to be in accordance with the requirements of clause 12.3 provided that, for the avoidance of doubt, such approval shall not be necessary.

12.5. The Sellers' Representative may resign at any time. The Sellers' Representative may consult with any Seller to the extent a claim is threatened or pursued by the Buyer in respect of any breach of, or right under, this Agreement or any other Transactional Document and which specifically concerns any actual or alleged act or default of that Seller.

12.6. The Sellers may, by written notice signed by a Sellers Majority (a "**Change Of Sellers' Representative Notice**"), replace a resigning Sellers' Representative or remove an incumbent Sellers' Representative from such position and appoint another person to act as Sellers' Representative in substitution thereof (a "**New Sellers' Representative**"). A Change Of Sellers' Representative Notice shall be effective only once a copy thereof has been served on both the incumbent Sellers' Representative and the Buyer.

12.7. A New Sellers' Representative so appointed shall, with effect from the time of its appointment, execute a deed of adherence in favour of the Sellers and the Buyer pursuant to which it shall agree to adhere to, and be bound by, this Agreement as though named herein as the Sellers' Representative and the parties agree that such substitute New Sellers' Representative shall be conferred the rights, power and authorities (including as set out in this clause 12) of the Sellers' Representative as set out in this Agreement and entitled to directly enforce the same (notwithstanding that it may not have initially been a signatory hereto). A copy of such deed of adherence shall be delivered to the Buyer at the same time as the Change Of Sellers' Representative Notice is served thereon under clause 12.6.

12.8. If at any time a New Sellers' Representative is appointed in accordance with clause 12.6, if required by the Buyer, the Sellers' Representative hereby undertakes to do all such things as may be necessary to novate the Escrow Agreement from the previous Sellers' Representative to the New Sellers' Representative.

12.9. Any action taken or any exercise of powers under this Agreement by the Sellers' Representative or any New Sellers' Representative shall be binding on each Seller for the purposes of this Agreement, shall be deemed to be done by each Seller, and the Buyer shall be entitled to assume that any action taken by the Sellers' Representative or any New Sellers' Representative whose appointment has been notified in accordance with this clause 14 is binding on all of the Sellers and the parties shall be entitled to rely on the same. The Buyer shall not be required to make further enquiries in respect thereof. The Buyer shall have no obligation to monitor or supervise the Sellers' Representative or any New Sellers' Representative. The Buyer shall not be liable to any of the Sellers for any action taken or omitted to be taken by the Sellers' Representative or any New Sellers' Representative.

12.10. All costs (including legal costs) and expenses (including Tax), in each case, of any nature whatsoever, of the Sellers' Representative shall be borne by the Sellers in the proportions set out in column D of the table in Schedule 1 (*The Sellers*).

12.11. The Sellers' Representative shall have no liability or obligation to take any action on behalf of any Seller under the powers and authorities conferred on the Sellers' Representative by this Agreement where such action may result in the Sellers' Representative incurring any cost, expense or liability unless the Sellers' Representative is satisfied with any arrangements made by (or on behalf of) the Sellers for the satisfaction or re-imbursement of such costs, expenses and liabilities.

12.12. Upon Completion, and subject to receipt by the Sellers' Representative of the cash sum provided for in clause 3.3(a), the Sellers' Representative will retain an amount of [***] from such sum (the "**Expense Fund**"), which will be used for the purposes of paying directly, or reimbursing the Sellers' Representative for, any third party expenses pursuant to this Agreement and the transactions contemplated hereby. The Sellers will not receive any interest or earnings on the Expense Fund and irrevocably transfer and assign to the Sellers' Representative any ownership right that they may otherwise have had in any such interest or earnings. The Sellers' Representative will not be liable for any loss of principal of the Expense Fund other than as a result of its gross negligence or wilful misconduct. The Sellers' Representative will hold these funds separate from its corporate funds in a segregated client account, will not use these funds for its operating expenses or any other corporate purposes and will not voluntarily make these funds available to its creditors in the event of bankruptcy. As soon as practicable following the completion of the Sellers' Representative's responsibilities, the Sellers' Representative will distribute the balance of the Expense Fund

to the Payments Administrator for further distribution to the Sellers. For tax purposes, the Expense Fund shall be treated as having been received and voluntarily set aside by the Sellers at the time of Completion. The parties agree that the Sellers' Representative is not responsible for any tax withholding or reporting or acting as a withholding agent or in any similar capacity in connection with the Expense Fund.

12.13. The Sellers' Representative will incur no liability of any kind with respect to any action or omission by the Sellers' Representative in connection with Sellers' Representative's services pursuant to this Agreement and any agreements ancillary hereto, except in the event of liability directly resulting from the Sellers' Representative's gross negligence or wilful misconduct. The Sellers' Representative shall not be liable to any Seller as a result of any action or omission that is taken (or not taken) in good faith pursuant to the advice of external legal counsel in the proper performance of its obligations under this Agreement. The Sellers will, severally and not jointly, on a pro rata basis equal to the portion of Total Consideration each such Seller is entitled to receive pursuant to this Agreement compared to the aggregate Total Consideration entitled to be received by all Sellers, indemnify, defend and hold harmless the Sellers' Representative from and against any and all losses, liabilities, damages, claims, penalties, fines, forfeitures, actions, fees, costs and expenses (including the fees and expenses of counsel and experts and their staffs and all expense of document location, duplication and shipment) (collectively, "**Representative Losses**") arising out of or in connection with the Sellers' Representative's execution and performance of this Agreement and any agreements ancillary hereto, in each case as such Representative Loss is suffered or incurred; provided, that in the event that any such Representative Loss is finally adjudicated to have been directly caused by the gross negligence or wilful misconduct of the Sellers' Representative, the Sellers' Representative will reimburse the Sellers the amount of such Representative Loss to the extent attributable to such gross negligence or wilful misconduct. If not paid directly to the Sellers' Representative by the Sellers, any such indemnified Representative Losses may be recovered by the Sellers' Representative from (i) the funds in the Expense Fund, (ii) the amounts in the Escrow Amount at such time as remaining amounts would otherwise be distributable to the Sellers, and (iii) from any Milestone Payments at such time as any such amounts would otherwise be distributable to the Sellers; provided, that while this section allows the Sellers' Representative to be paid from the Expense Fund, the Escrow Amount and the Milestone Payments, this does not relieve the Sellers from their obligation to promptly pay such Representative Losses as they are suffered or incurred, nor does it prevent the Sellers' Representative from seeking any remedies available to it at law or otherwise. In no event will the Sellers' Representative be required to advance its own funds on behalf of the Sellers or otherwise. For the avoidance of doubt and notwithstanding anything in this Agreement to the contrary, the limitations on liability of the Sellers set forth elsewhere in this Agreement are not intended to be applicable

to the indemnities provide to the Sellers' Representative under this clause 12.13. The Sellers acknowledge and agree that the foregoing indemnities will survive the resignation or removal of the Sellers' Representative or the termination of this Agreement.

13. PAYMENTS

13.1. Payments to be made to the Sellers under this Agreement shall be made in US dollars by telegraphic transfer of immediately available funds to such account controlled by the Payments Administrator as may be notified by the Payments Administrator or the Sellers' Representative in writing to the Buyer.

13.2. Payments to be made to the Buyer under this Agreement shall be made in US dollars by telegraphic transfer of immediately available funds to such account as may be notified in writing by the Buyer to the Payments Administrator.

13.3. The payment of any sum to the Buyer by or on behalf of any of the Sellers will discharge the obligations of the Sellers to pay the sum in question and the Sellers shall not be concerned to see the application of the monies so paid.

13.4. The payment of any sum to the Payments Administrator by or on behalf of the Buyer will discharge the obligations of the Buyer to pay the sum in question and the Buyer shall not be concerned to see the application of the monies so paid.

14. ANNOUNCEMENTS

14.1. Subject to clause 14.2, no party (the "**disclosing party**") may, before or after Completion, make or issue a public announcement or press release concerning the transactions referred to in this Agreement other than the Press Release unless it has first obtained the written consent of the Sellers (prior to Completion, if the disclosing party is the Buyer) or the Sellers' Representative (after Completion, if the disclosing party is the Buyer), or of the Buyer (if the disclosing party is a Seller) (in either case, the "**other party**"), which consent may not be unreasonably withheld or delayed.

14.2. Clause 14.1 does not apply to a public announcement or press release required by law, by a rule of a listing authority by which a party's shares are listed, a stock exchange on which a party's shares are listed or traded or by a governmental authority or other authority with relevant powers to which either party is subject or submits, whether or not the requirement has the force of law, provided that the public announcement, communication or circular shall so far as is practicable be made after consultation with the other party and after taking into account the reasonable requirements of the other party as to its timing, content and manner of making or despatch.

15. **CONFIDENTIALITY**

15.1. Subject to clause 15.4, each party shall treat the following information as confidential to the extent obtained as a result of or in connection with entering into this Agreement:

(a) details of the provisions of this Agreement, the Transactional Documents and any other agreement or arrangement entered into in connection with this Agreement;

(b) information relating to the negotiations leading to the execution of this Agreement, the Transactional Documents and any other agreement or arrangement entered into in connection with this Agreement; and

(c) (to the extent obtained as a result of or in connection with entering into this Agreement) information relating to the other party or such party's group undertakings,

provided that the parties shall always be permitted to confirm that the transaction effected by this Agreement has taken place without providing any further information.

15.2. Any party may disclose information otherwise required by clause 15.1 to be treated as confidential:

(a) if and to the extent required by the laws of any relevant jurisdiction, provided that the disclosing party shall, where it is practicable to do so and where permitted under applicable law, notify the other party of such disclosure in writing and take reasonable steps to minimize the extent of any such required disclosure;

(b) if and to the extent requested by any competent regulatory or governmental body, Tax Authority or securities exchange in any relevant jurisdiction wherever situated, whether or not the request has the force of law and including for the avoidance of doubt, any disclosure required by US accounting regulations;

(c) to a Tax Authority in connection with the Tax affairs of the disclosing party;

(d) to its professional advisers, auditors or bankers from time to time provided that such disclosure is reasonably required;

(e) to its shareholders and/or its limited partners as appropriate;

(f) in the case of the Buyer, to members of the Buyer's Group and to their professional advisers, auditors or bankers in each case from time to time;

(g) if and to the extent the information is or comes into the public domain through no fault of that part of any of those to whom that party has disclosed information; or

(h) if and to the extent, in the case of a Seller, the Buyer or, in the case of the Buyer, the Sellers' Representative, has given prior written consent to the disclosure.

15.3. Each party shall ensure that any person to whom confidential information is disclosed pursuant to clauses 15.2(d) through 15.2(f) is made aware of the obligations of confidentiality contained in this clause and agrees to adhere to them.

15.4. Notwithstanding anything in this Agreement to the contrary, following Completion, the Sellers' Representative shall be permitted to: (i) after the public announcement (if any) of the transaction contemplated by this Agreement, publicly announce that it has been engaged to serve as the Sellers' Representative in connection with the transaction as long as such announcement does not disclose any of the other terms hereof and (ii) disclose information to the Sellers who have a need to know such information provided that any such information will be subject to the confidentiality provisions of this Agreement including clause 15.1.

16. COSTS

Except where this Agreement or the relevant document provides otherwise, each party shall pay its own costs relating to the negotiation, preparation, execution and performance by it of this Agreement and of each document referred to in it.

17. GENERAL

17.1. A variation of this Agreement is valid only if it is in writing and signed by or on behalf of each party, provided that after Completion, any variation may be signed by the Sellers' Representative on behalf of itself and the Sellers provided the Sellers' Representative has the prior written approval of the Sellers Majority. The parties to this Agreement do not require the consent of any person having a right under the Contracts (Rights of Third Parties) Act 1999, as provided in clause 17.7, to rescind or vary this agreement.

17.2. The failure to exercise or delay in exercising a right or remedy provided by this Agreement or by law does not impair or constitute a waiver of the right or remedy or an impairment of or a waiver of other rights or remedies. No single or partial exercise of a right or remedy provided by this Agreement or by law prevents further exercise of the right or remedy or the exercise of another right or remedy.

17.3. The Buyer's rights and remedies contained in this Agreement are cumulative and not exclusive of rights or remedies provided by law to the extent not excluded or limited by this Agreement.

17.4. Except to the extent that they have been performed and except where this Agreement provides otherwise, the obligations contained in this Agreement remain in force after Completion.

17.5. Any payment by a Seller, pursuant to a Fundamental Warranty Claim, Special Indemnity Claim or Tax Warranty Claim or a Warrantor, pursuant to a Warrantor Fundamental Warranty Claim or a Business Warranty Claim shall, to the extent possible and without limiting the liability of any Seller or Warrantor (as the case may be) under this Agreement, be treated as a reduction in the purchase price payable by the Buyer for the Shares.

17.6. All payments made by a Seller under this Agreement shall be made gross, free of right of counterclaim or set off and without deduction or withholding of any kind other than deductions or withholding required by law.

17.7. Except as provided in clauses 10.7 and 11.7, a person who is not a party to this Agreement has no right, including under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of this Agreement.

18. ENTIRE AGREEMENT

18.1. The Transactional Documents constitute the entire agreement between the parties. They supersede any previous agreements relating to the subject matter of the Transactional Documents, and set out the complete legal relationship of the parties arising from or connected with that subject matter.

18.2. Nothing in this clause 19 shall have the effect of limiting any liability arising from fraud or wilful non-disclosure.

19. ASSIGNMENT

19.1. Subject to clause 19.2, no right or obligation arising under this Agreement or any other Transactional Document may be assigned, transferred or otherwise disposed of, in whole or in part without the prior written agreement if the assignor is the Buyer, of the Sellers' Representative, or if the assignor is a Seller, of the Buyer.

19.2. The Buyer shall be entitled to assign any benefit arising under or out of this Agreement or any other Transactional Document to any Buyer's Group Undertaking provided that the Buyer enters into a guarantee in a form reasonably satisfactory to the Sellers' Representative and further provided that, if the assignee is to cease to be a Buyer's Group Undertaking it shall, before ceasing to be so, assign the benefit (so far as it is assigned) to another Buyer's Group Undertaking.

19.3. The Buyer agrees that if it makes an assignment pursuant to this clause 19, the assignment shall not increase the liabilities of any Seller.

20. **NOTICES**

20.1. A notice or other communication under or in connection with this Agreement (a "**Notice**") shall be:

(a) in writing;

(b) in the English language; and

(c) delivered personally or sent by first class post (and air mail if overseas) or fax or email to the party due to receive the Notice to the address set out in clause 20.3 or to an alternative address, person or fax number or email address specified by that party by not less than five Business Days' written notice to the other party received before the Notice was despatched.

20.2. Unless there is evidence that it was received earlier, a Notice is deemed given if:

(a) delivered personally, when left at the address referred to in clause 20.3;

(b) sent by mail, except air mail, two Business Days after posting it;

(c) sent by air mail, six Business Days after posting it; and

(d) sent by email, when the email is sent, provided that a copy of the Notice is sent by another method referred to in this clause 20.2 on the same Business Day as the sending of the email, and provided further that the sender of the email does not receive an automated response from the recipient or a mail server indicating that the recipient is out of office or that the email could not be delivered.

20.3. The address referred to in clause 23.1.3 is:

Name of Party	Address	Email address or telephone number	For the attention of
Each Seller	In relation to each Seller, the address set out adjacent to that Seller's name in column A of Schedule 1 (The Sellers).		
Seller's Representative	Shareholder Representative Services LLC 1614 15th Street, Suite 200, Denver, CO 80202, United States	deals@srsacquiom.com	Managing Director
The Buyer	201 Gateway Boulevard South San Francisco California United States	[***]	Nick Galli and Alexander Schuth

21. **COUNTERPARTS**

This Agreement may be executed in any number of counterparts, each of which when executed and delivered is an original and all of which together evidence the same agreement.

22. **GOVERNING LAW**

This Agreement or the performance, enforcement, breach or termination hereof shall be interpreted, governed by and construed in accordance with the laws of England, excluding any conflicts or choice of law rule or principle that might otherwise refer construction or interpretation of this Agreement to the substantive law of another jurisdiction.

23. **DISPUTE RESOLUTION**

23.1. If a dispute arises between the Parties in connection with or relating to this Agreement or any document or instrument delivered in connection herewith (a "**Dispute**"), it shall be resolved pursuant to this clause 23.

23.2. **General**

Any Dispute shall first be referred to the Chief Executive Officer of the Buyer and the Sellers' Representative, who shall confer in good faith on the resolution of the issue. Any final decision mutually agreed to by such persons shall be conclusive and binding on the parties to this Agreement. If such persons are not able to agree on the resolution of any such

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

issue within thirty (30) days (or such other period of time as mutually agreed by the Buyer and the Seller's Representative) after such issue was first referred to them, then either the Buyer or the Sellers' Representative may, by written notice to the other, elect to initiate an alternative dispute resolution ("**ADR**") proceeding pursuant to the procedures set forth in clause 23.3 for purposes of having the matter settled.

23.3. **ADR**

Any ADR proceeding under this Agreement (with the exception of that specified in paragraph 11 of Schedule 8) shall take place pursuant to the procedures set forth in clause 15.7.3 of the License Agreement, save that references to "Denali" are references to the Buyer and references to the "Licensor" are references to the Sellers (or relevant Seller).

23.4. **Interim Relief**

Notwithstanding anything herein to the contrary, nothing in this clause 23 shall preclude either party from seeking interim or provisional relief, including a temporary restraining order, preliminary injunction or other interim equitable relief concerning a Dispute following the ADR procedures set forth in clause 23.3, if necessary to protect the interests of such party. This clause shall be specifically enforceable.

23.5. **RIGHTS OF EACH PARTY/NON-WAIVER**

The rights of each party under this Agreement:

(a) may be exercised as often as necessary;

(b) except as otherwise expressly provided in this Agreement, are cumulative and not exclusive of rights and remedies provided by law; and

(c) may be waived only in writing and specifically.

24. **PROCESS AGENTS**

The Buyer irrevocably appoints [***] as its process agent to receive on its behalf service of process in any proceedings [***]. Service upon the process agent shall constitute good and valid service on the Buyer whether or not the process is forwarded to or received by the Buyer. If for any reason the process agent ceases to act as process agent, resigns [***], the Buyer irrevocably agrees to appoint a substitute process agent [***] acceptable to the Sellers' Representative and to deliver to the Sellers' Representative a copy of the substitute process agents' acceptance of that appointment within 10 Business Days of the obligation to appoint arising. In the event that the Buyer fails to appoint a substitute process agent, it shall be

effective service for the Sellers (or the Sellers' Representative) to serve process upon the last known address [***] of the last known process agent for the Buyer notified to the Sellers, notwithstanding that such process agent is no longer found at such address or has ceased to act.

25. **CONFLICT WAIVER**

Notwithstanding that the Company has been represented by Cooley (UK) LLP (the "**Firm**") in the preparation, negotiation and execution of this Agreement and the transactions contemplated hereby, the Company agrees that after Completion the Firm may represent the Sellers' Representative, the Sellers and/or their Affiliates in matters related to this Agreement and the transactions contemplated hereby, including without limitation in respect of any indemnification claims pursuant to this Agreement and the transactions contemplated hereby. The Company hereby acknowledges, on behalf of itself and its Affiliates, that it has had an opportunity to ask for and has obtained information relevant to such representation, including disclosure of the reasonably foreseeable adverse consequences of such representation, and it hereby waives any conflict arising out of such future representation.

IT WITNESS whereof this Agreement has been entered into as a deed and is delivered on the date first aforementioned.

SCHEDULE 1

The Sellers

(A)	(B)	(C)	(D)	(E)	(F)
Name and Address of Seller	**No. of Ordinary Shares**	**No. of Deferred Shares**	**Proportion of Initial Consideration (%)**	**Contribution to Expense Fund (US$)**	**Contribution to Escrow Account (%)**
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]	[***]

[***]

SCHEDULE 2

Information about the Company

Registered Number:	10214672
Place of Incorporation:	England and Wales
Address of Registered Office:	Eddeva B920 Babraham Research Campus Cambridge CB22 3AT
Type of Company:	Private company limited by shares
Total Issued Share Capital:	£90.39625 comprising (i) 8,969,550 ordinary shares; and (ii) 70,075 deferred shares, in each case with an aggregate nominal value of £0.00001 with £0.00001 paid up on each share
Directors:	John Edwards Jean-Francois Formela Deborah Harland Tolga Hassan John Haurum Patrick Krol Florian Ruker Helmut Schuehsler
Secretary:	Tolga Hassan
Accounting Reference Date:	31 December
Subsidiaries:	None

SCHEDULE 3

Completion Requirements

1. **Sellers' Obligations**

1.1. At Completion, each Seller shall deliver the following documents or items to the Buyer or at the Buyer's direction:

1.1.1. duly executed transfer(s) in respect of that Seller's Relevant Shares to the Buyer or its nominee(s) and the share certificate(s) for such Relevant Shares;

1.1.2. duly executed powers of attorney or other authorities in the agreed form under which this Agreement, the other Transactional Documents and the transfers referred to in paragraph 1.1.1 of this Schedule 3 have been or are to be executed by such Seller; and

1.1.3. (if the Buyer so requires) an irrevocable power of attorney in the agreed form duly executed by such Seller and any other registered owner of such Seller's Relevant Shares in favour of the Buyer or its nominee(s) generally in respect of the Relevant Shares.

1.2. At Completion the Sellers shall deliver, procure delivery or make available to the Buyer:

1.2.1. each register, minute book and other book required by law to be kept by the Company made up to the Completion Date and each certificate of incorporation and certificate(s) of incorporation on change of name for the Company;

1.2.2. (if the Buyer so requires) resignations in the agreed form from each director and secretary of the Company expressed to take effect from the end of the meeting held pursuant to paragraph 1.3;

1.2.3. the Management Accounts;

1.2.4. a copy of each bank mandate of the Company and copies of statements of each bank account of the Company made up to a date not earlier than two (2) Business Days before the Completion Date;

1.2.5. a counterpart of the Escrow Agreement duly executed by the Sellers' Representative; and

1.2.6. the Disclosure Letter signed on behalf of each Warrantor.

1.3. The Sellers shall ensure that at Completion a meeting of the board of directors of the Company is held at which the directors:

1.3.1. vote in favour of the registration of the Buyer or its nominee(s) as member(s) of the Company in respect of the Shares (subject to the production of properly stamped transfers); and

1.3.2. approve the payment of the Transaction Costs.

2. Buyer's Obligations

2.1. At Completion, the Buyer shall deliver to the Sellers:

2.1.1. a counterpart of the Escrow Agreement duly executed by the Buyer; and

2.1.2. a counterpart of the Disclosure Letter signed by the Buyer.

2.2. At Completion, the Buyer shall procure that the Company shall pay the Transaction Costs to the extent not already paid.

SCHEDULE 4

Completion Accounts

Part A: Preparation of Completion Accounts

1. The Buyer shall procure that Draft Completion Accounts are prepared in accordance with the provisions of this Part A of Schedule 4 and on the basis of the Accounting Policies.

2. The Draft Completion Accounts shall be delivered to the Sellers' Representative by the Buyer as soon as is reasonably practicable and, in any event, not later than 90 calendar days after Completion.

3. If the Sellers' Representative does not within 30 calendar days of presentation to it of the Draft Completion Accounts give notice to the Buyer that it disagrees with the Draft Completion Accounts or any item therein, stating the reasons for the disagreement in reasonable detail including each disputed item, the amount in dispute and the basis for such dispute (the "**Sellers' Disagreement Notice**"), the Draft Completion Accounts shall constitute the Completion Accounts and shall be final and binding on the parties for all purposes in accordance with paragraph 12 of this Part A of Schedule 4.

4. If the Sellers' Representative gives a Sellers' Disagreement Notice under paragraph 3, the Buyer and the Sellers' Representative shall attempt in good faith to reach agreement in respect thereof (and, if such agreement is reached, the Draft Completion Accounts as amended by the matters set out in the Sellers' Disagreement Notice and agreed by the Buyer and the Sellers' Representative in writing shall constitute the Completion Accounts and shall be final and binding on them for all purposes in accordance with paragraph 12 of this Part A of Schedule 4). If they are unable to do so within 30 calendar days of such notification under paragraph 3 of this Part A of Schedule 4, either party may, by notice to the other (an "**Appointment Notice**"), require that the Draft Completion Accounts be referred to an independent firm of internationally recognised chartered accountants agreed upon by the Buyer and the Sellers' Representative or, failing agreement within five (5) Business Days of service of the Appointment Notice, nominated by the President for the time being of the Institute of Chartered Accountants in England and Wales or in his/her absence a suitable deputy (the "**Reporting Accountants**").

5. The Reporting Accountants shall be engaged jointly by the Buyer and the Sellers (acting through the Sellers' Representative) and the charges (including any VAT) of the Reporting Accountants shall be allocated between the Buyer on the one hand and the Sellers (acting through the Sellers' Representative) on the other by the Reporting Accountants in proportion

to the extent either of such parties did not prevail in the aggregate on the disputed items (as measured by the amounts in dispute). If any amount is payable by the Sellers pursuant to this paragraph 5, such amount shall be paid from the Escrow Account when the Buyer and the Sellers' Representative shall within three (3) Business Days following the date of such election or within five (5) Business Days of the Determination Date (whichever is later) jointly instruct the Escrow Agent in writing to make such payment out of amounts standing to the credit of the Escrow Account.

6. Except to the extent that the Buyer and the Sellers' Representative agree otherwise, the Reporting Accountants shall determine their own procedure but each party shall use all reasonable endeavours to procure that the Reporting Accountants apply the following rules:

6.1. apart from procedural matters and as otherwise set out in this Agreement, they shall determine only:

6.1.1. whether any of the arguments for an alteration to the Draft Completion Accounts put forward in respect of matters specified in the Sellers' Disagreement Notice is correct in whole or in part (unless such matters have been agreed between the Sellers' Representative and the Buyer); and

6.1.2. if so, what alterations (if any) should be made to the Draft Completion Accounts;

6.2. they shall apply the Accounting Policies;

6.3. they shall make their determination pursuant to paragraph 6.1 of this Part A of Schedule 4 as soon as is reasonably practicable;

6.4. the procedure of the Reporting Accountants shall:

6.4.1. give the Buyer and the Sellers' Representative a reasonable opportunity to make oral representations and representations in writing to them;

6.4.2. require that each party supplies the other with a copy of any representations in writing at the same time as they are made to the Reporting Accountants; and

6.4.3. permit each party to be present while oral submissions are being made by the other party;

6.5. for the avoidance of doubt, the Reporting Accountants shall not be entitled to determine the scope of their own jurisdiction; and

6.6. the determination of the Reporting Accountants pursuant to paragraph 6.1 of this Part A of Schedule 4 shall be made in writing.

7. The Reporting Accountants shall act as experts and not as arbitrators and their determination of any matter falling within their jurisdiction shall be final and binding on the parties, save in the event of fraud of the Buyer, any of the Sellers or the Reporting Accountants or manifest error of the Reporting Accountants (when the relevant part of their determination shall be void). In particular, without limitation, their determination shall be deemed to be incorporated into the Draft Completion Accounts, which shall then be final and binding on the parties for the purposes of this Schedule 4, save as stated above in the event of fraud or manifest error.

8. The Buyer and the Sellers' Representative shall co-operate with the Reporting Accountants and comply with their reasonable requests made in connection with the carrying out of their duties pursuant to their engagement under the terms of this Agreement.

9. Subject to paragraph 10 of this Part A of Schedule 4, nothing in this Schedule 4 shall entitle the Buyer or the Sellers' Representative or the Reporting Accountants to have access to any information or document which is protected by legal professional privilege, or which has been prepared by the other party or its accountants or other professional advisers with a view to assessing the merits of any claim or argument.

10. The Buyer and the Sellers' Representative shall not be entitled by reason of paragraph 9 of this Part A of Schedule 4 to refuse to supply such part or parts of documents as contain only the facts on which the relevant claim or argument is based.

11. Each party and the Reporting Accountants shall, and shall procure that its accountants and other advisers shall, keep all information and documents provided to them pursuant to this Part A of Schedule 4 confidential and shall not use them for any purpose, except for disclosure or use in connection with the preparation of the Draft Completion Accounts and the agreement or determination of the Completion Accounts, the proceedings of the Reporting Accountants or any other matter arising out of this Agreement or in defending any claim or argument or alleged claim or argument relating to this Agreement or its subject matter.

12. When the Sellers' Representative and the Buyer reach agreement on the Draft Completion Accounts or when the Draft Completion Accounts is finally determined at any stage in accordance with the procedures set out in this Part A of Schedule 4:

12.1. the Draft Completion Accounts as so agreed or determined shall constitute the Completion Accounts for the purposes of this Agreement and shall (in the absence of fraud or manifest error) be final and binding on the parties; and

12.2. the "**Actual Net Cash**" shall be the amount set out in line item "E" in the Completion Accounts.

13. Subject to paragraph 9 of this Part A of Schedule 4 and clause 15 of the Agreement, each Seller shall (in relation to information in its possession or control only) and the Buyer shall procure that the Company shall (in relation to information in their respective possession or control), promptly provide the parties, their respective advisers, the Buyer's accountants and the Sellers' accountants and, if relevant, the Reporting Accountants with all information (in their respective possession or control) relating to the operations of the Company, as the case may be, including access at all reasonable times to the Company and the employees of the Company (who shall give such explanations as any party may reasonably require in relation to the preparation of the Draft Completion Accounts), books, records, and other relevant information and all cooperation and assistance, as in any such case be reasonably required to enable the production and agreement or determination of the Completion Accounts pursuant to and in accordance with this Part A of Schedule 4; provided however, that the auditors or accountants of the Buyer or the Company shall not be obliged to make any work papers available to any person unless and until such person has signed a customary agreement relating to access to such work papers in form and substance reasonably acceptable to the Buyer and such auditors or accountants.

14. The Sellers (acting through the Seller's Representative) and the Buyer shall each bear their own costs (including legal costs) and expenses (including tax) together with VAT charged thereon, arising out of the preparation and review of the Draft Completion Accounts and the agreement or determination of the Completion Accounts.

Part B: Completion Accounts

[***]

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

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

Part C: Accounting Policies

1. **General Accounting Policies**

1.1. The Completion Accounts shall be determined in accordance with the following:

(a) first, in accordance with the [***];

(b) secondly, and to the extent not covered by or inconsistent with paragraph 1.1(a) of this Part C of Schedule 4 (which shall prevail in the event of any inconsistency), on a basis consistent with [***]; and

(c) thirdly, and to the extent not covered by or inconsistent with paragraphs 1.1(a) or 1.1(b) of this Part C of Schedule 4 (which shall prevail in the event of any inconsistency), [***].

1.2. The parties acknowledge that the sole purpose of determining the Actual Net Cash is to determine the adjustments (if any) to be made to the Initial Consideration in accordance with clause 3.

1.3. The provisions of this Part C of Schedule 4 and the line items comprising the Completion Accounts shall be interpreted so as to avoid double counting (whether positive or negative) of any items to be included in the Actual Net Cash.

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

Part D: Preparation of Management Accounts

1. ACCOUNTING POLICIES

a. PRESENTATION OF MANAGEMENT ACCOUNTS

CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Company's accounting policies, management make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period of the revision and future periods if the revision affects both current and future periods.

b. OVERALL CONSIDERATIONS

The principal accounting policies adopted in the preparation of the management accounts are set out below.

i. BASIS OF PREPARATION OF MANAGEMENT ACCOUNTS

These management accounts have been prepared in accordance with EU endorsed International Financial Reporting Standards (IFRS) and interpretations issued by the IFRS Interpretations Committee (IFRS IC) and the Companies Act 2006 applicable to companies reporting under IFRS. The management accounts have been prepared under the historical cost convention.

ii. GOING CONCERN

Management prepare management accounts on a going concern basis unless they intend to liquidate the business or to cease trading, or have no realistic alternative but to do so. In deciding whether the going concern basis is appropriate, the directors examine existing budgets and forecasts, assess borrowing requirements, and review other information as needed.

iii. NEW AND AMENDED STANDARDS ADOPTED BY THE COMPANY

In any period, new or amended standards and interpretations are considered for adoption. Other standards, amendments and interpretations which are effective for the period are considered where they material to the Company.

c. RECEIVABLES

Receivables are recognised initially at fair value less provision for impairment. The Company provides an allowance for uncollectible accounts based on prior experience and management's assessment of the collectability of existing specific accounts.

d. CASH AND CASH EQUIVALENTS

Cash and cash equivalents comprises cash on hand and demand deposits, and other short-term and highly liquid investments with original maturities of three months or less that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

e. EQUITY AND RESERVES

Ordinary and preferred shares are classified as equity. Issued capital represents the nominal value of shares that have been issued. Retained earnings includes all current period retained profits and accumulated losses.

f. TRADE PAYABLES

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Trade and other payables are stated at cost, which approximates fair value due to the short term nature of these liabilities. Trade payables are classified as current liabilities if payment is due within one period or less. If not, they are presented as non-current liabilities.

g. REVENUE RECOGNITION

Revenue is measured at the fair value of the consideration received or receivable and is stated net of value added taxes. Revenue is recognised when it is probable that future economic benefits will flow to the Company and those benefits can be measured reliably. Revenue on the sale of an asset (e.g. the outright sale or assignment of a licence) is only recognised when, inter alia, the significant risks and rewards of ownership have been transferred to the buyer and the Company does not retain either control of the goods, or continuing involvement, to the degree associated with ownership.

Where, as part of a licence agreement, services are performed by an indeterminate number of acts over a specified period of time, revenue for such services is recognised on a straight-line basis over the specified period unless there is evidence that some other method represents better the stage of completion.

h. SHARE BASED PAYMENTS

A share option compensation charge is not recognised in the monthly management accounts.

i. TAXATION AND DEFERRED TAX

A tax credit or charge is not reflected in the monthly management accounts.

Deferred tax is not reflected in the monthly management accounts.

j. FINANCIAL INSTRUMENTS

i. FINANCIAL ASSETS

All financial assets relate to trade and other receivables, which are stated at their recoverable amount, which approximates the fair value due to the short term nature of these assets.

ii. RISK MANAGEMENT POLICY

The Company undertakes transactions denominated in foreign currencies and as such is exposed to currency risk due to fluctuations in foreign exchange rates. The Company does not use derivative instruments to reduce exposure to foreign exchange risk.

iii. FINANCIAL LIABILITIES

Trade and other payables are stated at cost. This approximates fair value due to the short term nature of these liabilities.

k. FOREIGN CURRENCY TRANSLATION

Foreign currency transactions are translated at the rates of exchange in effect at the dates of the transaction. Resulting foreign currency denominated monetary assets and liabilities are translated at the rates of exchange in effect at the balance sheet date. Gains and losses on foreign exchange are recognised in the income statement.

SCHEDULE 5

Contingent Consideration

Part A: Contingent Consideration

1. Definitions

In this Schedule 5, and where applicable, the remainder of this Agreement, the following definitions shall apply:

"**Accepted Fcab Target**" has the meaning given to it in the License Agreement, with respect to events and circumstances before Completion and has the meaning given to it in the Gamma IP License with respect to events and circumstances after Completion;

"**Commercialisation**" has the meaning given to it in the License Agreement;

"**Commercially Reasonable Efforts**" has the meaning given to it in the License Agreement;

"**Conforming mAb^{2}**" means [***];

"**Contingent Consideration**" means any of the Milestone Payments;

"**Default Notice**" has the meaning given to it in paragraph 2.2 of this Part A of Schedule 5;

"**Denali Fcab**" has the meaning given to it in the License Agreement;

"**EU Regulatory Milestone**" means [***];

"**European Union**" or "**E.U.**" has the meaning given to it in the License Agreement and shall be deemed to include [***];

"**Fcab Delivery**" means, with respect to an Accepted Fcab Target, that an Fcab that specifically binds to such Accepted Fcab Target has achieved "Fcab Delivery" (as defined therein) under Section 4.3 or Section 9.11.1 of the License Agreement or Section 4.1.2 of the Gamma Services Agreement during the applicable Fcab Disclosure Period (as defined therein);

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

"**First Commercial Sale**" has the meaning given to it in the License Agreement, except that all references to Licensed Products in such definition will be read as references to mAb^2 Products;

"**Fcab**" has the meaning given to it in the License Agreement;

"**Fcab Disclosure Period**" has the meaning given to it in Section 1.3.3 of that certain letter agreement between the Company, F-Star, F-Star GmbH and Buyer dated and entered into on or about May ___, 2018;

"**GMP**" has the meaning given to it in the License Agreement;

"**Initial Milestone**" has the meaning given to it in the table in Part B of this Schedule 5;

"**Initial Payment True Up Event**" means that [***];

"**Joint Fcab**" has the meaning given to it in the License Agreement;

"**Licensor Fcab**" has the meaning given to it in the License Agreement;

"**mAb^2 Product**" means [***];

"**Major EU Market**" means [***].

"**Milestone Event**" means the relevant event as set out in column 1 of Part B of this Schedule 5, which shall trigger the relevant Milestone Payment. In addition:

a) where [***], it shall be considered a "Milestone Event" in respect of which the Buyer will pay to the Sellers a one-time payment (which shall constitute a "Milestone Payment") of [***];

b) [intentionally left blank];

c) [intentionally left blank]; and

d) [***];

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

"**Milestone Payment**" means, with respect to a Milestone Event:

a) if [***], a payment equal to [***] of the "Maximum Milestone Payment" amount set out column 2 of Part B of this Schedule 5 in the row corresponding to the applicable Milestone Event; and

b) if [***], a payment equal to [***] of the "Maximum Milestone Payment" amount set out column 2 of Part B of this Schedule 5 in the row corresponding to the applicable Milestone Event;

In no event will more than one Milestone Payment be made for a given Milestone Event, regardless of how many mAb^2 Products achieve such Milestone Event, *except that* [***], then a second Milestone Payment shall become due with respect to such Milestone Event, in an amount equal to [***] of the "Maximum Milestone Payment" amount set out column 2 of Part B of this Schedule 5 in the row corresponding to the applicable Milestone Event. For clarity, under no circumstances will the total Milestone Payments that the Buyer becomes obligated to make in respect to a given Milestone Event exceed the "Maximum Milestone Payment" amount set out column 2 of Part B of this Schedule 5 in the row corresponding to the applicable Milestone Event;

"**Net Sales**" means, with respect to a mAb^2 Product for any period, the total amount billed or invoices on sales of such mAb^2 Product during such period by the Buyer, its Affiliates or sublicensees, calculated in accordance with the definition of "Net Sales" used in the License Agreement, and reading all references to Licensed Products in such definition as references to mAb^2 Products;

"**Non-conforming mAb^2**" means a mAb^2 Product that is not a Conforming mAb^2;

"**Payment Date**" means the date which is 90 calendar days after any date on which a Milestone Payment is triggered;

"**Regulatory Approval**" has the meaning given to it in the License Agreement;

"**Relevant Period**" means the period from Completion until [***];

"**Remaining Amount**" means the aggregate Contingent Consideration payable pursuant to [***] minus the aggregate Contingent Consideration actually paid by the Buyer pursuant to [***] prior to the date of delivery of a Default Notice;

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

"**Risk-Adjusted Remaining Amount**" means [***];

"**Total Contingent Consideration**" means the aggregate of the Milestone Payments; and

"**US Regulatory Milestone**" means [***].

2. **Conduct of business during Relevant Period**

Commercially Reasonable Efforts

2.1. The Buyer shall during the Relevant Period use Commercially Reasonable Efforts to achieve both of the EU Regulatory Milestone and the US Regulatory Milestone. The Sellers acknowledge and agree that, in addition to the foregoing:

(a) the Buyer shall be deemed to have satisfied its obligations under this paragraph 2.1 of Schedule 5 so long as the Buyer is using Commercially Reasonable Efforts to advance [***] toward achievement of the [***];

(b) the Buyer shall have the right to satisfy its diligence obligations under this paragraph 2.1 of Schedule 5 through its Affiliates or Sublicensees; and

(c) nothing in this paragraph 2.1 of Schedule 5 is intended, or shall be construed, to require the Buyer to Develop:

(i) [***]; or

(ii) [***]

2.2. If at any time the Sellers have a reasonable basis to believe that the Buyer is in material breach of its obligations under paragraph 2.1 of Schedule 5 and such material breach has continued for a period of at least [***] (a "**Continuing Material Breach**"), then the Sellers shall cause the Sellers' Representative to deliver written notice (the "**Default Notice**") of such Continuing Material Breach to the Buyer and, if the Buyer fails to remedy such Continuing Material Breach within 60 days of receipt of the Default Notice, then the provisions of paragraph 2.3 shall apply.

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

2.3. If the Buyer is in Continuing Material Breach of its obligations under paragraph 2.1 and following receipt of a Default Notice fails to remedy such Continuing Material Breach within the time period set out in paragraph 2.2, then the Sellers' Representative may, by written notice to the Buyer, elect to initiate an ADR proceeding pursuant to the procedures set forth in clause 23.3, and the arbitrators for such ADR proceeding shall be instructed and required to conduct a proceeding for the sole purposes of [***]. In the event [***] the Buyer is in Continuing Material Breach of its obligations under paragraph 2.1, the Buyer shall pay to the Sellers [***] the Risk-Adjusted Remaining Amount.

2.4. Any amount to be paid by the Buyer pursuant to paragraph 2.3:

(a) to the Cash Sellers, shall be paid by transfer of the relevant funds for same day value to the Payments Administrator,

(b) to the Loan Note Sellers, shall be paid by the issue by the Buyer of Contingent Consideration Loan Notes to each of the Loan Note Sellers equal, in principal amount, to the relevant amount due to each of them pursuant to paragraph 2.3,

in each case shall be made within 30 Business Days of the expiry of the time period set out in paragraph 2.2 without set off, deduction or withholding (except as required by law or by this Agreement).

2.5. The Sellers agree between themselves that any payments to the Payments Administrator pursuant to paragraph 2.4 shall be apportioned, and the principal amount of any Contingent Consideration Loan Notes issued pursuant to paragraph 2.4 shall be calculated, by reference to the Sellers' respective Proportion of Initial Consideration. The Buyer shall not be responsible for how any such payment to the Payments Administrator is allocated or applied by the Payments Administrator.

2.6. A payment or issue of Contingent Consideration Loan Notes by the Buyer pursuant to paragraph 2.3 shall not discharge the Buyer of its obligation to pay any further Contingent Consideration (if any) above the amounts paid to the Sellers in accordance with paragraph 2.3 upon achievement of the relevant Milestone Events.

2.7. The parties acknowledge that:

(a) any provision in this Agreement that imposes a detriment on a party in breach, in particular as set out in paragraph 2.3 of this Part A of Schedule 5, represents a genuine pre-estimate of the loss expected to be suffered by the party not in breach, and:

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

(i) protects the legitimate interests of the other parties in the enforcement of the obligation breached; and

(ii) is not out of all proportion to those legitimate interests; and

(b) they are of comparable bargaining power and each of them has been properly advised in relation to this Agreement.

Record Keeping and Reporting

2.8. The Buyer agrees that during the period whilst further Contingent Consideration is payable in accordance with this Schedule 5 it shall, and shall procure that each other Buyer's Group Undertaking shall:

(a) prepare and maintain reasonably complete and accurate records regarding any Commercialisation or Development efforts which relate to any mAb^2 Product and all other data necessary for the calculation of the Contingent Consideration;

(b) once per calendar year, on 31 January, and subject to reasonable procedures and agreements to preserve confidentiality, provide the Sellers' Representative with a written report on material developments with respect to the Development and Commercialisation of any mAb^2 Product, together with such reasonable additional information regarding any such activities or events as the Sellers' Representative may reasonably request from time to time (subject to any applicable third party confidentiality restrictions) which shall include copies of relevant documents as requested by the Sellers' Representative; and

(c) once per calendar year during the Relevant Period, within 30 days of the Sellers' Representative's written request, meet in person or by telephone with the Sellers' Representative. At such meetings, the Buyer shall cause senior officers from the research, clinical development, and business operations of the Buyer and/or the Buyer's Group Undertakings to attend, to present and to answer questions. Each of the Buyer and the Sellers' Representative (on behalf of the Sellers) shall bear its own costs and expenses regarding such meetings.

2.9. Upon receipt of a request from the Sellers' Representative, the Buyer shall, and shall ensure each of Buyer's Group Undertakings shall, permit an independent auditor designated by the Sellers' Representative to inspect and audit the records and books of account maintained by it pursuant to paragraph 2.8 in order to confirm the accuracy and completeness of such records and books of account and the calculation of the Contingent Consideration. Any such audit shall (i) be for a reasonable duration during office hours on a Business Day; (ii) be upon notice of at least 30 days; and (iii) not be requested more than once during each

financial year of the period during which any Contingent Consideration remains payable. The Sellers' Representative (on behalf of the Sellers) shall pay the costs of each audit unless the audit reveals a variance of more than [***] between the amounts paid and the amounts due, in which case the Buyer shall bear the cost of the audit, *provided*, *however*, that in the event the audit pertains to achievement of a Milestone Event relating to the Buyer's Net Sales, the Sellers' Representative (on behalf of the Sellers) shall pay the costs of each audit unless the audit reveals a variance of more than [***] between the Net Sales reported by Buyer and the Net Sales determined by the audit. If the audit reveals an underpayment by the Buyer, the Buyer shall transfer the amount by which it had underpaid by transfer of funds for same day value to the Payments Administrator for further distribution to the Sellers within 10 Business Days after the date on which such audit is completed.

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

Part B: Milestone Payment Amounts

Column 1: Milestone Event	Column 2: Maximum Milestone Payment (US$)
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
TOTAL =	[***]

* The maximum Milestone Payment for this Milestone Event shall be increased by [***].

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

SCHEDULE 6

[***]

Part A: [***]

1. **CAPACITY AND AUTHORITY**

1.1. The Seller has the right, power and authority to execute, deliver and perform its obligations under this Agreement and any other Transactional Document to be executed by the Seller and, where the Seller is not an individual, all such obligations of the Seller have been duly and validly approved and authorized by all necessary action on the part of such Seller, and no other action on the part of such Seller is required in connection therewith.

1.2. If such Seller is not an individual, it has been duly incorporated and is validly existing and in good standing under the laws of the jurisdiction in which it is incorporated or constituted (to the extent that such concepts are recognised in such jurisdiction).

1.3. The Seller's obligations under this Agreement and any other Transactional Document to be executed by the Seller are, or when the relevant document is executed will be, enforceable in accordance with their terms, subject to the effects of bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar laws relating to or affecting creditors' rights generally and general equitable principles

1.4. The execution and delivery of, and the performance by the Seller of its obligations under, this Agreement and any of the Transactional Documents will not:

(a) if relevant, result in a breach of any provision of its articles of association or by-laws;

(b) result in a breach of, or constitute a default under, any instrument to which the Seller is a party or by which the Seller is bound where such breach may prejudice the transactions contemplated by this Agreement or any of the Transaction Documents; or

(c) result in a breach of any order, judgment or decree of any court or Authority to which the Seller is a party or by which the Seller is bound or submits where such breach may prejudice the transactions contemplated by this Agreement or any of the Transaction Documents.

2. SHARES

2.1. The Seller's Relevant Shares constitute the whole of the Seller's interest in the allotted and issued share capital of the Company and the Seller does not exercise voting power over any other outstanding shares or other equity interests of the Company.

2.2. The Seller is entitled to sell and transfer or procure the transfer of the full legal and beneficial ownership of its Relevant Shares to the Buyer on the terms set out in this Agreement.

2.3. The Shares registered in the name of the Seller and set out opposite his name at columns B and C (as applicable) of Schedule 1 have been properly allotted and issued and are fully paid and such Shares will be sold free of all Encumbrances and there is no agreement, arrangement or obligation to give or create any such Encumbrance. No person has claimed to be entitled to an Encumbrance in relation to any such Shares.

Part B: [***]

1. **SHARES**

1.1. At Completion, the Shares are registered in the name of the Sellers and set out opposite their names at columns B and C (as applicable) of Schedule 1 and constitute the entire issued share capital of the Company, have been properly allotted and issued and are fully paid or credited as fully paid.

1.2. Other than this Agreement, the Transaction Documents, the Shareholders' Agreement or as referred to or contemplated by this Agreement, there is no agreement, arrangement or obligation requiring the creation, allotment, issue, transfer, redemption or repayment of, or the grant to a person by the Company of the right (conditional or not) to require the allotment, issue, transfer, redemption or repayment of, a share in the capital of the Company (including an option or right of pre emption or conversion).

1.3. So far as the Warrantors are aware, no person has claimed to be entitled to an Encumbrance in relation to any Shares.

1.4. Save for this Agreement, the Transaction Documents, the Company's articles of association and the Shareholders' Agreement, there are no contracts relating to voting, purchase, sale or transfer of any Shares (i) between or among the Company and any Shareholder, and (ii) so far as the Warrantors are aware, between or among any of the Shareholders.

2. **THE GROUP**

2.1. The Company does not have, and has not at any time had, any subsidiary undertakings.

2.2. Other than as contemplated by this Agreement, the Company has no interest in, and has not agreed to acquire an interest in or merge or consolidate with, a corporate body or any other person.

2.3. The information contained in Schedule 1 (*The Sellers*) and Schedule 2 (*Information about the Company*) is true and accurate.

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

SCHEDULE 7

[***]

1. **ORGANIZATION**

1.1 The Company is a company duly incorporated and validly existing under the laws of England and Wales and has the right, power and authority to execute, deliver and perform its obligations under this Agreement and any other Transactional Document to be executed by it.

1.2 The Company's obligations under this Agreement and any other Transactional Documents to be executed by the Company are, or when the relevant document is executed will be, enforceable in accordance with their terms, subject to the effects of bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar laws relating to or affecting creditors' rights generally and general equitable principles.

2. **ACCOUNTS**

2.1 **General**

2.1.1 The Accounts have been prepared and audited on a proper and consistent basis in accordance with the law and applicable standards, principles and practices generally accepted in the United Kingdom.

2.1.2 The Accounts show a true and fair view of the state of affairs of the Company as at the Last Accounting Date and of the profit or loss of the Company for the financial year ended on the Last Accounting Date.

2.1.3 Save as disclosed in the Accounts, the Accounts have been prepared using the same accounting policies as those adopted and applied in preparing the accounts for the previous two years.

2.1.4 The Company does not have any liabilities of any nature other than (i) those set forth or adequately provided for in the Accounts, (ii) those incurred in the conduct of the Company's business since the Last Accounting Date in the ordinary course, and which, individually or in the aggregate, are not material in nature or amount and do not result from any breach by the Company of any contract, warranty, infringement, tort or violation of law to which it is subject, and (iii) those incurred by the Company in connection with the execution of this Agreement. Except for liabilities reflected in the Accounts, the Company has no off balance sheet liability of any nature to, or any material financial interest in, any third party or entities, the purpose or effect of which is to defer, postpone, reduce or otherwise avoid or adjust the recording of expenses incurred by the Company. Without limiting the generality of the foregoing, the Company has never guaranteed any debt or other obligation of any other person.

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

2.2 **Provision for Tax**

The Accounts include provision or reserve (as appropriate) in accordance with the relevant accounting standards for Tax liable to be assessed on the Company or for which the Company is accountable in respect of profits earned, accrued or received on or before the Last Accounting Date, and in respect of any event occurring on or before the Last Accounting Date.

2.3 **Accounting records**

The Company's accounting records are up-to-date in all material respects, are in its possession or under its control and are properly completed in accordance with the law and applicable standards, principles and practices generally accepted in the United Kingdom.

3. **CHANGES SINCE THE LAST ACCOUNTING DATE**

3.1 Since the Last Accounting Date:

3.1.1 the Company's business has in all material respects been operated in the usual way so as to maintain it as a going concern;

3.1.2 there has been no material adverse change in the financial or trading position of the Company or the properties, assets (including intangible assets), liabilities, business, prospects, capitalization, employees, operations or results of operations of the Company or any change that would reasonably be expected to materially impede or delay the Company's ability to consummate the transactions contemplated by this Agreement, other than any event, circumstance or change resulting from changes in stock markets, interest rates, exchange rates, commodity prices or other general economic conditions or changes in conditions affecting the industry generally in which the Company operates;

3.1.3 the Company has not made or entered into any contract or letter of intent with respect to, or otherwise effected, any acquisition, sale, license, disposition or transfer of any asset that is material to the business of the Company, including without limitation, Intellectual Property other than IP Licenses Out;

3.1.4 there has not occurred any change in accounting methods or practices (including any change in depreciation or amortization policies or rates or revenue recognition policies or establishment of reserves) by the Company or any revaluation by the Company of any of its assets;

3.1.5 there has not occurred any declaration, setting aside, or payment of a dividend or other distribution with respect to any securities of the Company, or any redemption, purchase or other acquisition by the Company of any of its securities, or any change in any rights, preferences, privileges or restrictions of any of its outstanding securities;

3.1.6 the Company has not entered into, amended, renewed or terminated any Material Contract (as hereinafter defined), and there has not occurred any material default or breach under any Material Contract to which the Company is a party or by which it is, or any of its assets and properties are, bound;

3.1.7 the Company has not incurred, created or assumed any Encumbrance on any of its assets or properties, any material indebtedness, or any liability as guarantor or surety with respect to the obligations of any other person; and

3.1.8 the Company has not paid or discharged any Encumbrance or liability which was not shown on the Accounts or incurred in the ordinary course of business consistent with past practice since the Last Accounting Date.

4. **TAX**

4.1 The Company has, within the last three years, where legally obliged to do so:

4.1.1 duly and punctually paid all Tax which it has become liable to pay, whether or not shown or required to be shown on any Tax return;

4.1.2 duly deducted, withheld or collected for payment (as appropriate) all Tax due to have been deducted, withheld or collected for payment and has accounted for or paid all such Tax to the relevant Tax Authority (to the extent due); and

4.1.3 not been liable to pay any material interest, penalty or surcharge in respect of any unpaid Tax.

4.2 All returns, computations, information, accounts and notices which are or have been required by law to be made or given by the Company within the last three years for any Tax purposes have been made or given in the required form and have been properly submitted by the Company and are complete and accurate in all material respects.

4.3 The Company has, in the last three years, in all material respects, complied at all times with all statutory requirements, regulations, notices, orders, directions and conditions relating to all relevant Taxes, including the terms of any agreement made with HMRC or any other relevant Tax Authority.

4.4 The Company is not, nor has it at any time within the last three years, been involved in any dispute with or non-routine investigation, audit or discovery by any Tax Authority and, so far as the Warrantors are aware, no such dispute, investigation, audit or discovery is planned.

4.5 There are no liens or encumbrances against any of the Company’s assets, arising in connection with a failure to pay any Tax.

4.6 In the last three years, each related party transaction involving the Company is and has been at arm's-length in all material respects and determined in compliance in all material respects with applicable transfer pricing rules and regulations.

4.7 The Company does not have any outstanding waivers or extension of the statute of limitations for assessment of any Tax.

4.8 The Company is not a party to, or bound by, any Tax indemnity agreement, Tax sharing agreement or Tax allocation agreement with respect to Taxes (other than any agreement entered into in the ordinary course of business and not primarily related to Taxes) and other than this Agreement, the Spin-Out License, and the License Agreement and any other agreement contemplated by any such agreements. The Company is not liable for Taxes of any other Person (i) under any applicable Law, (ii) as a transferee of any assets or successor to any liabilities, or (iii) by Contract, indemnity or otherwise, including by reason of the transactions contemplated by the Gamma IP License.

4.9 In the last three years, no written claim has been made by any Tax Authority in a jurisdiction where the Company does not file Tax Returns that the Company is or may be subject to Taxation by that jurisdiction.

4.10 The Company will not, after the Completion Date, be liable under any applicable Law, by Contract, indemnity or otherwise as a transferee of any assets or successor to any liabilities, for any Taxes of F-star, F-star GmbH, or any of their Affiliates as a result of (i) the Company's entry into, and transactions contemplated by, the Gamma IP License, the License Agreement and the Services Agreement and/or (ii) the transactions contemplated by the Option Agreement and this Agreement other than VAT as provided for in any agreement.

5. ASSETS

5.1 Title and condition

5.1.1 Each asset included in the Accounts or acquired by the Company since the Last Accounting Date is:

(a)legally and beneficially owned solely by the Company;

(b)where capable of possession, in the possession or under the control of the Company.

5.1.2 Company owns or has the right to use each asset used in and necessary for the effective operation of its business.

6. INTELLECTUAL PROPERTY

The Company owns, or has rights to use, all Intellectual Property materially necessary for the Company to operate its business.

6.1 Registered Owned IP

6.1.1 The Disclosure Letter sets out details of all material registered Intellectual Property owned by the Company ("**Registered Owned IP**"). The Company solely owns the Registered Owned IP.

6.1.2 To the best of the knowledge, information and belief of the Warrantors, (i) there are no issued patents or registered trademarks within the Registered Owned IP that are invalid or unenforceable and (ii) there are no patent applications included within the Registered Owned IP that have not been duly filed and diligently prosecuted.

6.1.3 The Company has received an assignment of rights from each inventor listed in the patents and patent applications included in the Disclosure Letter save in the case of those inventors which are employees of the Company and whose inventions vest in the Company by virtue of their employment relationship. The Company is the sole legal and beneficial owner of each of the patents and patent applications.

6.1.4 All issuance, renewal and maintenance fees due up to and including the date of this Agreement in respect of each of the Registered Owned IP have been paid in full and on time.

6.2 **No infringement by Company of third party Intellectual Property**

6.2.1 To the best of the knowledge, information and belief of the Warrantors, the activities of the Company, and the practice of the inventions claimed under the Registered Owned IP, do not nor have they in the year prior to the date of this Agreement infringed, misappropriated, misused, violated or otherwise made use without authorisation of any third party Intellectual Property nor has any person threatened to the Company in writing to issue such a notice.

6.2.2 To the best of the knowledge, information and belief of the Warrantors, the Company has not issued any opposition, invalidation, revocation or cancellation proceeding or any other proceeding or counterclaim (including any litigation, arbitration or proceeding pursuant to any other dispute resolution mechanism) concerning the validity, enforceability or title to any Intellectual Property of any third party.

6.3 **IP Licenses In and IP Licenses Out**

6.3.1 Copies of all material licenses of Intellectual Property granted by the Company ("**IP Licenses Out**") and granted to the Company ("**IP Licenses In**") are included in the Disclosure Bundle.

6.3.2 To the best of the knowledge, information and belief of the Warrantors, no IP License In or IP License Out is currently being, or has at any time been, breached in a material way by the Company or to the best of the Warrantors' knowledge, information and belief, by any other party thereto. So far as the Warrantors are aware, the rights granted under the IP Licenses In and IP Licenses Out will not be adversely affected by the transactions contemplated by this Agreement.

6.3.3 To the best of the knowledge, information and belief of the Warrantors, all fees, royalties or other amounts due to be paid by or to the Company in respect of any IP License In or IP License Out have been paid in a timely manner and no such payments have been outstanding for more than 60 days.

6.4 **Company Confidential Information**

6.4.1 To the best of the knowledge, information and belief of the Warrantors, all Company Confidential Information held by the Company is accurately and properly documented to enable the Buyer to acquire and retain its full benefit and is subject to appropriate storage and security measures to preserve the confidentiality and secrecy of such Company Confidential Information.

6.4.2 To the best of the knowledge, information and belief of the Warrantors, the Company has not disclosed any Company Confidential Information to any person other than (i) its employees and advisors who are bound by obligations of confidence (howsoever arising); (ii) in circumstances where such disclosures have been made in the ordinary course of business; and (iii) pursuant to the IP Licenses Out and the IP Licenses In.

7. **INSURANCE**

7.1 **Policies**

The Disclosure Letter sets out a list of insurance policies maintained by or on behalf of the Company (together the "**Policies**");

7.2 **Status of the Policies**

Each of the Policies is valid and enforceable and the Warrantors are not aware of any circumstances that would render any of them void or voidable.

7.3 **Premiums**

All premiums which are due under the Policies have been paid.

8. **MATERIAL CONTRACTS**

8.1 **Validity of Material Contract**

8.1.1 Save for the Transaction Documents. the Company is not a party to or bound by any of the following contracts (each a "**Material Contract**"):

(a) any contract limiting the freedom of the Company to engage or participate, or compete with any other person, in any line of business, market or geographic area, or to make use of any Intellectual Property, or any contract granting exclusive rights, rights of refusal, rights of first negotiation or similar rights and/or terms to any person, or any contract otherwise limiting the right of the Company to sell, distribute or manufacture any products or services or to purchase or otherwise obtain any products or services;

(b) any licenses, sublicenses and other contracts pursuant to which any person is granted any rights to Intellectual Property of the Company or pursuant to which the Company has agreed to any restriction on the right of the Company

to use or enforce any Intellectual Property owned by the Company or pursuant to which the Company agrees to encumber, transfer or sell rights in or with respect to any Intellectual Property owned by the Company; or

(c) any other contract or obligation that individually had or has a value or payment obligation in excess of US$50,000 over the life of the contract or is otherwise material to the Company or its businesses, operations, financial condition, properties or assets.

8.1.2 Each of the Material Contracts is in full force and effect, subject only to the effect, if any, of applicable bankruptcy and other similar laws affecting the rights of creditors generally and rules of law governing specific performance, injunctive relief and other equitable remedies.

8.1.3 No party to a Material Contract has given notice of its intention to terminate to the Company, or has sought to repudiate or disclaim, the Material Contract.

8.1.4 Neither the Company nor, so far as the Warrantors are aware, any party with whom the Company has entered into a Material Contract is in material breach of the Material Contract.

8.1.5 So far as the Warrantors are aware, no circumstances exist which would give rise to any breach of any Material Contract or to any such Material Contract being terminated or varied without the Company's consent (other than termination without cause upon notice in accordance with the terms of the agreement).

9. EFFECT OF SALE

Neither the execution nor the performance of this Agreement or any document to be executed at or before the Completion Date will result in the Company losing the benefit of any material asset, grant, subsidy, right or privilege which it enjoys at the date of this Agreement.

10. LIABILITIES

10.1 Indebtedness

The Company does not have outstanding and has not agreed to create or incur loan capital, borrowings, indebtedness in the nature of borrowings other than the trade debt incurred in the ordinary and usual course of trading.

10.2 Guarantees and indemnities

The Company is not a party to and is not liable under a guarantee, indemnity or other agreement to secure or incur a financial or other obligation with respect to another person's obligation.

10.3 Grants

10.3.1 The Company is not liable to repay an investment or other grant or subsidy made to it by a body (including the Department for Business, Innovation and Skills or its predecessor).

10.3.2 No fact or circumstance (including the execution and performance of this Agreement) exists which might entitle a body to require repayment of, or refuse an application by the Company for, the whole or part of a grant or subsidy.

11. RESTRICTIONS ON BUSINESS ACTIVITIES

Other than the Transaction Documents, there is no contract, judgment, injunction, order or decree binding upon the Company as of the date of this Agreement which has or would reasonably be expected to have, whether before or after Completion, the effect of prohibiting, restricting or impairing any current or presently proposed business practice of the Company, any acquisition of property by the Company or the conduct or operation of the Company's business or limiting the freedom of the Company to engage in any line of business, to sell, license or otherwise distribute services or products in any market or geographic area, or to compete with any person.

12. SERVICE PROVIDERS

12.1 The Company has never employed or engaged any employees, consultants, advisory board members, or independent contractors. The Company has never maintained or offered any:

12.1.1 employee benefit plans;

12.1.2 loan to any independent contractor or consultant;

12.1.3 stock option, stock purchase, phantom stock, stock appreciation right, supplemental retirement, severance, sabbatical, medical, dental, vision care, disability, employee relocation, cafeteria benefit, dependent care, life insurance or accident insurance plans, programs or arrangements;

12.1.4 bonus, pension, profit sharing, savings, severance, retirement, deferred compensation or incentive plans, programs or arrangements;

12.1.5 other fringe or employee benefit plans, programs or arrangements; or

12.1.6 employment or executive compensation or severance agreements, written or otherwise.

12.2 None of the execution and delivery of this Agreement, the Completion or any other transaction contemplated hereby or any termination of employment or service or any other event in connection therewith or subsequent thereto will, individually or together or with the occurrence of some other event:

12.2.1 result in any payment (including severance, unemployment compensation, golden parachute, bonus or otherwise) becoming due to any person;

12.2.2 increase or otherwise enhance any benefits otherwise payable by the Company;

12.2.3 result in the acceleration of the time of payment or vesting of any such benefits;

12.2.4 obligate the payment of compensation to any person; or

12.2.5 result in the forgiveness in whole or in part of any outstanding loans made by the Company to any person.

13. INTERESTED PARTY TRANSACTIONS

None of the officers and directors of the Company and, as far as the Warrantors are aware, none of the employees of the Company or Shareholders, nor, so far as the Warrantors are aware, any immediate family member of an officer, director, employee or Shareholder, has any direct or indirect ownership, participation, or other interest in, or is an officer, director, employee of or consultant or contractor for any firm, partnership, entity or corporation that competes with, or does business with, or has any contractual arrangement with, the Company (except with respect to (i) F-star or F-star GmbH or (ii) any interest in less than five per cent (5%) of the issued share capital of any Company whose shares are publicly traded). None of said officers, directors or Shareholders or, so far as the Warrantors are aware, any employees or member of their immediate families of the foregoing, is a party to or otherwise directly interested in, any contract to which the Company is a party or by which the Company or any of its assets or properties may be bound or affected in a material manner. As far as the Warrantors are aware, none of said officers, directors, employees or Shareholders has any material interest in any property, real or personal, tangible or intangible (including any Intellectual Property) that is directly related to the business of the Company.

14. COMPLIANCE WITH OPTION AGREEMENT

At all times since the Effective Date (as defined in the Option Agreement) the Company has complied in all material respects with its covenants set forth in the Option Agreement.

15. INSOLVENCY, WINDING UP ETC.

15.1 Winding up

No order has been made, petition presented or resolution passed for the winding up of the Company or for the appointment of a liquidator or provisional liquidator to the Company.

15.2 Administration

No administrator has been appointed in relation to the Company. So far as the Warrantors are aware, no notice has been given or filed with the court of an intention to appoint an administrator. No petition or application has been presented or order made for the appointment of an administrator in respect of the Company.

15.3 Receivership

No receiver or administrative receiver has been appointed, nor any notice given of the appointment of any such person, over the whole or part of the Company's business or assets.

15.4 **Moratorium**

No moratorium has been sought or has been granted under section 1A of the Insolvency Act 1986 in respect of the Company.

15.5 **Voluntary arrangements**

No voluntary arrangement has been proposed under section 1 of the Insolvency Act 1986 in respect of the Company.

15.6 **Scheme of arrangement**

No compromise or arrangement has been proposed, agreed to or sanctioned under Part 26 (Arrangements and Reconstructions) of the Act in respect of the Company, nor has any application been made to, or filed with, the court for permission to convene a meeting to vote on a proposal for any such compromise or arrangement.

15.7 **Informal arrangements with creditors**

The Company has not proposed or agreed to a composition, compromise, assignment or arrangement with any of its creditors.

15.8 **Inability to pay debts**

The Company is not unable to pay its debts within the meaning of section 123 of the Insolvency Act 1986. There are no unsatisfied written demands that have been served on the Company pursuant to section 123(1)(a) of the Insolvency Act 1986. There is no unsatisfied judgment or court order outstanding against the Company.

15.9 **Payment of debts**

The Company has not stopped payment of, nor is it unable to pay, its debts as they fall due, nor has the Company commenced negotiations with one or more of its creditors with a view to rescheduling or restructuring any of its indebtedness.

15.10 **Distress**

No distress, execution, attachment, sequestration or other process has been levied on an asset of the Company which remains undischarged.

15.11 **Striking out**

No action is being taken by the Registrar of Companies to strike the Company off the register under section 1000 of the Act.

15.12 **Analogous proceedings**

The Company is not, in any jurisdiction, subject to or threatened by any other procedures or steps which are analogous to those set out above.

16. COMPETITION

So far as the Warrantors are aware, the Company has not failed to comply with or infringed the competition laws or regulations of any jurisdiction or been investigated for alleged non-compliance or infringement or given any undertaking in connection therewith.

17. LITIGATION AND COMPLIANCE WITH LAW

Nothing in this Warranty concerns any matters concerned with any Intellectual Property.

For the purposes of this paragraph 12:

"**Agent**" means, with respect to an entity, any director, officer, employee or other representative of such entity; any person for whose acts such entity may be vicariously liable; and any other person that acts for or on behalf of, or provides services for or on behalf of, such entity, in each case, whilst acting in his capacity as such;

17.1 Litigation

17.1.1 Neither the Company nor, so far as the Warrantors are aware, a person for whose acts or defaults the Company may be vicariously liable is involved, or has been involved, in a civil, criminal, arbitration, administrative or other proceeding. The Company has not received written notice that any civil, criminal, arbitration, administrative or other proceeding is pending or threatened by or against the Company or the assets or properties of the Company, or any of the directors, officers or employees of the Company (in their capacities as such or relating to their employment, services or relationship with the Company) or, so far as the Warrantors are aware, a person for whose acts or defaults the Company may be vicariously liable. So far as the Warrantors are aware, there is no reasonable basis for any action, suit, proceeding, claim, mediation, arbitration or investigation against the Company or the assets or properties of the Company, or any of the directors, officers or employees of the Company (in their capacities as such or relating to their employment, services or relationship with the Company) or a person for whose acts or defaults the Company may be vicariously liable.

17.1.2 There is no outstanding judgment, order, decree, arbitral award or decision of a court, tribunal, arbitrator or governmental agency against the Company, any of its assets or properties, or a person for whose acts or defaults the Company may be vicariously liable.

17.1.3 So far as the Warrantors are aware, there is no reasonable basis for any Person to asset a claim against the Company based upon the Company entering into this Agreement or any of the Transaction Documents.

17.2 **Compliance with law**

17.2.1 The Company has conducted its business and dealt with its assets in all material respects in accordance with applicable legal and administrative requirements.

17.2.2 The Company has obtained each governmental consent, license, permit, grant, or other authorization of a governmental entity that is required for the operation of the Company's business or the holding of its assets or properties (all of the foregoing consents, licenses, permits, grants, and other authorizations, collectively, the "**Company Authorizations**") and all of the Company Authorizations are in full force and effect. The Company has not received any notice or other communication from any governmental entity regarding (i) any actual or possible violation of law or of any Company Authorization or any failure to comply with any term or requirement of any Company Authorization or (ii) any actual or possible revocation, withdrawal, suspension, cancellation, termination or modification of any Company Authorization. None of the Company Authorizations will be terminated or impaired, or will become terminable, in whole or in part, as a result of the consummation of the transactions contemplated by this Agreement.

17.3 **Investigations**

There is not and has not been any governmental or other investigation, enquiry or disciplinary proceeding concerning the Company that the Company has been notified of and, so far as the Warrantors are aware, none is pending or threatened.

17.4 **Making unlawful payments**

Neither the Company nor, so far as the Warrantors are aware, any of its Agents has paid, offered, promised, given or authorised the payment of money or anything of value directly or indirectly to any person:

17.4.1 intending to induce a person to improperly perform a function or activity or to reward a person for any such performance; or

17.4.2 while knowing or believing that the acceptance by that person would constitute the improper performance of a function or activity.

17.5 **Receiving unlawful payments**

Neither the Company nor so far as the Warrantors are aware, have any of its Agents has directly or indirectly requested, agreed to receive or accepted money or anything of value:

17.5.1 as a reward for the improper performance of a function or activity by any person;

17.5.2 in circumstances which amount to an improper performance of a function or activity; or

17.5.3 intending that as a consequence of any such request, agreement to receive or acceptance a function or activity will be performed improperly.

SCHEDULE 8

Limitations on Sellers' Liability

1. **LIMITATION ON QUANTUM**

1.1. No Warrantor shall be liable in respect of [***] unless and until the amount that would otherwise be recoverable from the Warrantors (in aggregate) in respect of [***], when aggregated with any other amounts recoverable in respect of [***] exceeds [***] (the "**Threshold**"), in which case the Warrantors shall be liable [***].

1.2. The total aggregate liability of the Warrantors in respect of [***] shall be limited in accordance with clause 6.3.

1.3. The liability in respect of each Seller in respect of [***] shall be limited to a maximum amount equal to [***] of the aggregate of the Total Consideration paid to such Seller, except for [***] with respect to [***] set forth in [***], which shall be limited to a maximum amount of [***]. The liability in respect of each Seller in respect of [***] shall be limited to a maximum amount equal to [***], except in the case of [***], which shall be limited to a maximum amount of [***].

1.4. The liability of each Seller, in respect of [***] made against such Seller, and the liability of each Warrantor for [***] made against such Warrantor, shall be limited to a maximum amount equal to [***].

1.5. Subject to paragraph 4 of this Schedule 8, the aggregate liability of any Seller for all claims under this Agreement shall be limited to a maximum amount equal to [***].

2. **TIME LIMITATIONS**

2.1. No Seller, in respect of [***], or Warrantor, in respect of [***], shall be liable for such Claim (as the case may be) unless the Buyer has given the Sellers' Representative and each Warrantor notice of such Claim (as the case may be), which notice shall state in reasonable detail the nature of the Claim, the grounds on which it is based (including which Warranty has or Warranties have been breached) and a good faith estimate of the amount claimed and must be notified to the Sellers' Representative or Warrantor (as the case may be):

(a) on or before the date that is [***] after the Completion Date in respect of [***];

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

(b) on or before [***] in respect of [***]; or

(c) on or before [***] in respect of [***].

2.2. No Seller shall be liable for [***] or Warrantor shall be liable for [***] unless proceedings in respect of such Claim (as the case may be) are issued and served on the Sellers' Representative within a period of [***] starting on the day of the Buyer's notification of such Claim pursuant to Section 2.1 above and provided that such Claim has not otherwise been satisfied, settled or withdrawn.

3. **RECOURSE FOR** [***]

In the event that any Seller is liable to the Buyer in respect of [***] following the earlier of (i) exhaustion of the money standing to the credit of the Escrow Account and (ii) the Release Date, the Buyer's [***] recourse for such liability shall be [***].

4. **NO LIMITATION FOR FRAUD ETC.**

Nothing in this Schedule 8 shall have the effect of limiting or restricting any liability of any Seller or Warrantor in respect of a Claim arising as a result of any fraud, wilful misconduct or wilful concealment by or on behalf of that Seller or Warrantor.

5. **RECOVERY ONLY ONCE**

The Buyer is not entitled to recover more than once in respect of any one matter giving rise to a loss or liability under this Agreement.

6. **THIRD PARTY RECOVERY**

6.1. If the Sellers pay to a Buyer's Group Undertaking an amount in respect of a Claim and a Buyer's Group Undertaking subsequently recovers from another person an amount which is referable to the matter giving rise to the Claim:

(a) if the amount paid by the Sellers in respect of the Claim is more than the Sum Recovered, the Buyer shall promptly pay to the Sellers the Sum Recovered; and

(b) if the amount paid by the Sellers in respect of the Claim is less than or equal to the Sum Recovered, the Buyer shall promptly pay to the Sellers an amount equal to the amount paid by the Sellers.

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

For the purposes of paragraph 6.1 of this Schedule 8, "**Sum Recovered**" means an amount equal to the total of the amount recovered from the other person plus any interest in respect of the amount recovered from that person less all reasonable costs incurred by a Buyer's Group Undertaking in recovering the amount from the person.

6.2. If the Buyer or a Buyer's Group Undertaking becomes aware that matters have arisen which will or could reasonably be expected to give rise to a Claim, the Buyer will (or will procure that the relevant Buyer's Group Undertaking will) where practicable (and provided such information is not subject to confidentiality or is not privileged) disclose in writing to the Sellers' Representative such information and documents relating to the Claim as the Sellers' Representative may reasonably request (at the sole cost of the Sellers) and will consult with those Sellers to the extent practicable and have regard to their reasonable representations in respect of the resolution of the Claim.

7. ACCOUNTS

The Sellers shall have no liability in respect of any Claim if and to the extent that any allowance, provision or reserve was made or otherwise reflected in the Accounts or the Completion Accounts in respect of the matter or circumstances giving rise to the Claim.

8. TAX

8.1. The Sellers shall not be liable in respect of [***] to the extent that:

(a) it has been discharged or made good without cost or loss to the Buyer; or

(b) it arises or is increased as a result of any increase in the rates of Tax announced after the date of this Agreement; or

(c) it arises or is increased by virtue of the failure or omission by the Company or the Buyer to make any claim, election, surrender or disclaimer or give any notice or consent or do any other thing after Completion (otherwise than at the written request of the Sellers), the making, giving or doing of which was taken into account or assumed in computing any provision or reserve for Tax in the Completion Accounts; or

(d) any Relief (other than a Relief which has been reflected or shown as an asset in the Completion Accounts, or has been taken into account in calculating any provisions for Tax in the Completion Accounts) is available to reduce or eliminate such Tax liability.

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

9. **CHANGE IN LAW**

The Sellers shall not be liable in respect of any Claim to the extent that it arises, or its value is increased, as a result of a change in any law, legislation, rule or regulation (including any new law, legislation, rule or regulation) that comes into force or otherwise takes effect after the date of this Agreement.

10. **VOLUNTARY ACTS**

10.1. The Sellers shall not be liable in respect of any Claim to the extent that the matter or circumstance giving rise to such Claim arises, occurs or is otherwise attributable to, or the Sellers' liability pursuant to such Claim is increased as a result of:

[***].

10.2. The Sellers shall not be liable in respect of any Claim to the extent that [***].

11. **SET OFF**

11.1. Subject to the procedures set forth in paragraph 11.2 below, the Buyer shall be entitled to deduct from the Contingent Consideration payable to a Seller or Sellers when it becomes due and payable in accordance with the provisions of Schedule 5 (*Contingent Consideration*), an amount equal to any Claim which may exist at the date upon which the Contingent Consideration falls due to be paid by the Buyer; *provided, however*, that in respect of [***], the Buyer may only deduct or withhold from the Contingent Consideration payable to the Sellers the proportion of the Contingent Consideration (as notified by the Sellers' Representative pursuant to clause 3.5 of the Agreement) that is due or becomes due to [***].

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

11.2. If in connection with a payment of Contingent Consideration that has become due and payable in accordance with the provisions of Schedule 5 (*Contingent Consideration*), the Buyer in good faith believes that a Claim exists and the Buyer intends to make a deduction to such Contingent Consideration as permitted under paragraph 11.1 above, the Buyer shall, within three (3) Business Days following such payment becoming due and payable, deliver to the Sellers' Representative and each Warrantor a notice in writing (a "**Set Off Notice**") of such Claim, which Set Off Notice shall state in reasonable detail the nature of the Claim, the grounds on which it is based (including which Warranty has or Warranties have been breached) and a good faith estimate of the amount claimed (the "**Set Off Claim**"). If the Sellers' Representative wishes to dispute the Set Off Claim on behalf of the Sellers or any Seller, it may, within twenty (20) Business Days of receipt of the Set Off Notice, indicate the same by written notice to the Buyer (the "**Set Off Dispute Notice**") which also shall state in reasonable the basis for the Sellers' Representative's dispute and the grounds on which it is based, in which case, either the Buyer or the Sellers' Representative may then elect to initiate an alternative dispute resolution proceeding pursuant to the procedures set forth in clause 23.3 for purposes of having the Set Off Claim settled (a "**Set Off ADR**")

11.3. Promptly following timely receipt of the Set Off Dispute Notice, the Buyer shall deposit the applicable Contingent Consideration into escrow with SunTrust Bank or another escrow agent mutually acceptable to the Buyer and the Sellers' Representative. The applicable Contingent Consideration shall be released from escrow and paid in accordance with the decision of the arbitrators in such Set Off ADR.

11.4. For the avoidance of doubt, the set-off right set out in this paragraph 11 shall not apply to [***].

12. **[***]**

[***].

13. **CONDUCT OF THIRD PARTY CLAIMS**

13.1. The provisions of this paragraph 13 shall apply in the event that any third party brings or makes (or threatens to bring or make) any claim, demand, action or proceedings against any of the Buyer or a Buyer's Group Undertaking which may reasonably be considered likely to give rise to a Claim (a "**Third Party Claim**").

13.2. In the event of a Third Party Claim, the Buyer shall:

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

(a) as soon as reasonably practicable [***] give written notice of the Third Party Claim to the Sellers' Representative, specifying in reasonable detail the nature of the Third Party Claim;

(b) permit the Sellers' Representative to participate in the defence of (but not conduct or control) such Third Party Claim at the expense of the Sellers' Representative;

(c) keep the Sellers reasonably informed (through the Sellers' Representative) of the progress of, and all material developments in relation to, the Third Party Claim;

(d) provide the Sellers' Representative with copies of all material information and correspondence relating to the Third Party Claim; and

(e) give (and cause each relevant Buyer's Group Undertaking to give) the Sellers' Representative and/or its professional advisers access at reasonable times (and on reasonable prior notice) to its premises and personnel, and to any relevant assets, accounts, documents or records within its control, for the purposes of enabling the Sellers to assess the Third Party Claim and to exercise their rights under this paragraph 13.2.

13.3. The Buyer shall have the right in its sole discretion to conduct the defence of and to settle or resolve such Third-Party Claim. However, without the prior written consent of the Sellers' Representative, which consent will not be unreasonably withheld, delayed or conditioned [***]. In the event that the Sellers' Representative has consented in writing [***], neither the Sellers' Representative nor any Seller shall have any power or authority to object [***].

13.4. The Sellers shall indemnify the Buyer in respect of all costs, charges and expenses that are reasonably and properly incurred by the Buyer (or any other member of the Buyer's Group) in connection with the defence of a Third Party Claim.

14. PROVISION OF INFORMATION

If, at any time after the date of this Agreement, a Seller wants to insure against its liabilities in respect of a Claim, the Buyer shall provide such information and assistance as a prospective insurer may reasonably require before effecting the insurance.

15. PRESERVATION OF INFORMATION

The Buyer shall, and shall ensure that each Buyer Group Company will, use reasonable endeavours to preserve all documents, records, correspondence, accounts and other information whatsoever relevant to a matter which may give rise to a Claim.

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

16. **RELEASING SELLER FROM LIABILITY**

The Buyer may release or compromise in whole or in part the liability of any of the Sellers under this Agreement or grant any time or indulgence to that Seller without affecting the liability of any other Seller.

17. **CONTINGENT LIABILITIES**

If any potential Claim arises as a result of a contingent or unquantifiable liability of any Buyer's Group Undertaking, each Seller will not be obliged to pay any sum in respect of the potential Claim until the liability either ceases to be contingent or becomes quantifiable; provided, however, that this paragraph 17 shall not restrict the Buyer from setting off and deducting the Buyer's reasonable estimate of any such potential Claim from Contingent Consideration, as permitted by paragraph 11.

EXECUTED and **DELIVERED** as a **DEED** by **DENALI THERAPEUTICS INC.** acting by an authorised officer)
)
) …/s/ Steve Krognes……

In the presence of:

Signature of Witness: …….

Name of Witness: …….

Address of Witness: …….

…….

Occupation of Witness: …….

EXECUTED and **DELIVERED** as a **DEED** by)
SHAREHOLDER REPRESENTATIVE)
SERVICES LLC. acting by an authorised officer) …/s/ [***]……

In the presence of:

Signature of Witness: ……..

Name of Witness: ……..

Address of Witness: ……..

……..

Occupation of Witness: ……..

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

EXECUTED and **DELIVERED** as a **DEED** by **[***]**
an authorised signatory of
ATLAS VENTURE ASSOCIATES VII, INC. acting in its capacity as general partner of **ATLAS VENTURE ASSOCIATES VII, L.P.** acting in its capacity as general partner of **ATLAS VENTURE FUND VII, L.P.**

In the presence of: …/s/ [***]……

Signature of Witness: …….

Name of Witness: …….

Address of Witness: …….

…….

……

Occupation of Witness: …….

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

EXECUTED and **DELIVERED** as a **DEED**

by [***]
an authorised signatory of
AESCAP VENTURE MANAGEMENT B.V. acting as
manager of
COÖPERATIVE AESCAP VENTURE I U.A.

In the presence of: …/s/ [***]……

Signature of Witness: …….

Name of Witness: …….

Address of Witness:

…….

…….

……

Occupation of Witness:

…….

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

EXECUTED and **DELIVERED** as a **DEED** by **TVM LIFE SCIENCE VENTURES VI GMBH & CO. KG** acting by **_____**, authorised signatory

In the Presence of: …/s/ [***]……

Signature of Witness: …….

Name of Witness: …….

Address of Witness: …….

…….

……

Occupation of Witness: …….

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

EXECUTED and **DELIVERED** as a **DEED**
by **_____,** authorised signatory of **TVM LIFE SCIENCE VENTURES VI CAYMAN LIMITED**
acting as a general partner of

TVM LIFE SCIENCE VENTURES VI LIMITED PARTNERSHIP

In the Presence of:

…/s/ [***]……

Signature of Witness: …….

Name of Witness: …….

Address of Witness:

…….

…….

……

Occupation of Witness:

…….

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

EXECUTED and **DELIVERED** as a **DEED** by **MP HEALTHCARE VENTURE MANAGEMENT, INC.** acting by **_____,** an authorised signatory

In the Presence of:

…/s/ [***]……

Signature of Witness: …….

Name of Witness: …….

Address of Witness:

…….

…….

…….

Occupation of Witness:

…….

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

EXECUTED and **DELIVERED** as a **DEED** by **MERCK VENTURES B.V.** acting by **_____,** an authorised signatory

In the Presence of: …/s/ [***]……

Signature of Witness: …….

Name of Witness: …….

Address of Witness: …….

…….

……

Occupation of Witness:

…….

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

EXECUTED and **DELIVERED** as a **DEED** by **S.R. ONE, LIMITED** acting by [***], a duly authorised officer

…/s/ [***]……

In the Presence of:

Signature of Witness: …….

Name of Witness: …….

Address of Witness:

…….

…….

……

Occupation of Witness:

…….

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

EXECUTED and **DELIVERED** as a **DEED** by **[***]**

…/s/ [***]……

In the Presence of:

Signature of Witness: …….

Name of Witness: …….

Address of Witness:

…….

…….

…….

Occupation of Witness: …….

*** Certain information in this agreement has been omitted and filed separately with the Securities and Exchange Commission. [***] indicates that text has been omitted and is the subject of a confidential treatment request.

Exhibit 31.1

CERTIFICATION OF PERIODIC REPORT UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Ryan J. Watts, Ph.D., certify that:

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

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

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

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

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

(b) 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: August 9, 2018

/s/ Ryan J. Watts

Ryan J. Watts, Ph.D.
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION OF PERIODIC REPORT UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Steve E. Krognes, certify that:

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

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

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

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

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

(b) 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: August 9, 2018

/s/ Steve E. Krognes

Steve E. Krognes
Chief Financial Officer and Treasurer

Exhibit 32.1

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

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), I, Ryan J. Watts, Ph.D., President and Chief Executive Officer of Denali Therapeutics Inc. (the "Company"), hereby certify that:

1. The Company's Quarterly Report on Form 10-Q for the period ended June 30, 2018, to which this Certification is attached as Exhibit 32.1 (the "Periodic Report"), fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

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

Date: August 9, 2018

By:	/s/ Ryan J. Watts
Name:	Ryan J. Watts, Ph.D.
Title:	President and Chief Executive Officer

Exhibit 32.2

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

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), I, Steve E. Krognes, Chief Financial Officer and Treasurer of Denali Therapeutics Inc. (the "Company"), hereby certify that:

1. The Company's Quarterly Report on Form 10-Q for the period ended June 30, 2018, to which this Certification is attached as Exhibit 32.2 (the "Periodic Report"), fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

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

Date: August 9, 2018

By:	/s/ Steve E. Krognes
Name:	Steve E. Krognes
Title:	Chief Financial Officer and Treasurer