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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

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

For the quarterly period ended September 30, 2022

OR

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

Commission File Number: 000-15006

CELLDEX THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**No. 13-3191702**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

Perryville III Building, 53 Frontage Road, Suite 220, Hampton, New Jersey 08827
(Address of principal executive offices) (Zip Code)

(908) 200-7500
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $.001	CLDX	Nasdaq Capital Market

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

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

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

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

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

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

As of October 31, 2022, 47,099,831 shares of common stock, $.001 par value per share, were outstanding.

CELLDEX THERAPEUTICS, INC.

FORM 10-Q

For the Quarterly Period Ended September 30, 2022

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PART I — FINANCIAL INFORMATION
Item 1. Unaudited Financial Statements

CELLDEX THERAPEUTICS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

(In thousands, except share and per share amounts)

	September 30, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 18,583	$ 39,143
Marketable securities	304,888	369,107
Accounts and other receivables	189	172
Prepaid and other current assets	10,939	2,417
Total current assets	334,599	410,839
Property and equipment, net	3,753	3,551
Operating lease right-of-use assets, net	3,580	2,970
Intangible assets, net	27,190	27,190
Other assets	104	104
Total assets	$ 369,226	$ 444,654
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 2,272	$ 1,228
Accrued expenses	11,425	12,000
Current portion of operating lease liabilities	1,438	1,746
Current portion of other long-term liabilities	1,152	1,554
Total current liabilities	16,287	16,528
Long-term portion of operating lease liabilities	2,190	1,296
Other long-term liabilities	5,333	7,354
Total liabilities	23,810	25,178
Commitments and contingent liabilities		
Stockholders' equity:		
Convertible preferred stock, $.01 par value; 3,000,000 shares authorized; no shares issued and outstanding at September 30, 2022 and December 31, 2021	—	—
Common stock, $.001 par value; 297,000,000 shares authorized; 47,096,063 and 46,730,198 shares issued and outstanding at September 30, 2022 and December 31, 2021, respectively	47	47
Additional paid-in capital	1,574,926	1,561,142
Accumulated other comprehensive income	(112)	1,894
Accumulated deficit	(1,229,445)	(1,143,607)
Total stockholders' equity	345,416	419,476
Total liabilities and stockholders' equity	$ 369,226	$ 444,654

See accompanying notes to unaudited condensed consolidated financial statements

CELLDEX THERAPEUTICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(Unaudited)

(In thousands, except per share amounts)

	Three Months Ended September 30, 2022	Three Months Ended September 30, 2021	Nine Months Ended September 30, 2022	Nine Months Ended September 30, 2021
Revenues:				
Product development and licensing agreements	$ —	$ —	$ 30	$ 29
Contracts and grants	407	153	714	4,288
Total revenues	407	153	744	4,317
Operating expenses:				
Research and development	21,572	13,557	59,359	38,633
General and administrative	6,531	5,821	20,596	14,247
Intangible asset impairment	—	3,500	—	3,500
Gain on fair value remeasurement of contingent consideration	—	(1,901)	(6,862)	(1,160)
Litigation settlement related loss	—	—	15,000	—
Total operating expenses	28,103	20,977	88,093	55,220
Operating loss	(27,696)	(20,824)	(87,349)	(50,903)
Investment and other income, net	912	145	1,511	313
Net loss before income tax benefit	(26,784)	(20,679)	(85,838)	(50,590)
Income tax benefit	—	227	—	227
Net loss	$ (26,784)	$ (20,452)	$ (85,838)	$ (50,363)
Basic and diluted net loss per common share	$ (0.57)	$ (0.45)	$ (1.83)	$ (1.21)
Shares used in calculating basic and diluted net loss per share	46,916	45,453	46,806	41,582
Comprehensive loss:				
Net loss	$ (26,784)	$ (20,452)	$ (85,838)	$ (50,363)
Other comprehensive income (loss):				
Unrealized gain (loss) on marketable securities	305	(44)	(2,006)	(41)
Comprehensive loss	$ (26,479)	$ (20,496)	$ (87,844)	$ (50,404)

See accompanying notes to unaudited condensed consolidated financial statements

CELLDEX THERAPEUTICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOW
(Unaudited)

(In thousands)

	Nine Months Ended September 30, 2022	Nine Months Ended September 30, 2021
Cash flows from operating activities:		
Net loss	$ (85,838)	$ (50,363)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	2,223	2,291
Amortization and premium of marketable securities, net	1,366	(3,407)
Loss (gain) on sale or disposal of assets	1	(23)
Intangible asset impairment	—	3,500
Gain on fair value remeasurement of contingent consideration	(6,862)	(1,160)
Non-cash income tax benefit	—	(227)
Stock-based compensation expense	11,103	5,813
Changes in operating assets and liabilities:		
Accounts and other receivables	(17)	1,549
Prepaid and other current assets	(7,928)	(2,261)
Accounts payable and accrued expenses	720	1,757
Other liabilities	3,262	(3,855)
Net cash used in operating activities	(81,970)	(46,386)
Cash flows from investing activities:		
Sales and maturities of marketable securities	192,866	129,000
Purchases of marketable securities	(132,613)	(325,342)
Acquisition of property and equipment	(1,593)	(895)
Proceeds from sale or disposal of assets	69	25
Net cash provided by (used in) investing activities	58,729	(197,212)
Cash flows from financing activities:		
Net proceeds from stock issuances	—	269,893
Proceeds from issuance of stock from employee benefit plans	2,681	2,053
Net cash provided by financing activities	2,681	271,946
Net (decrease) increase in cash and cash equivalents	(20,560)	28,348
Cash and cash equivalents at beginning of period	39,143	43,836
Cash and cash equivalents at end of period	$ 18,583	$ 72,184
Non-cash investing activities		
Accrued construction in progress	$ 38	$ 46

See accompanying notes to unaudited condensed consolidated financial statements

CELLDEX THERAPEUTICS, INC.
Notes to Unaudited Condensed Consolidated Financial Statements
September 30, 2022

(1) Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared by Celldex Therapeutics, Inc. (the "Company" or "Celldex") in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and reflect the operations of the Company and its wholly-owned subsidiary. All intercompany balances and transactions have been eliminated in consolidation.

These interim financial statements do not include all the information and footnotes required by U.S. GAAP for annual financial statements and should be read in conjunction with the audited financial statements for the year ended December 31, 2021, which are included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 28, 2022. In the opinion of management, the interim financial statements reflect all normal recurring adjustments necessary to fairly state the Company's financial position and results of operations for the interim periods presented. The year-end condensed balance sheet data presented for comparative purposes was derived from audited financial statements but does not include all disclosures required by U.S. GAAP.

The results of operations for the interim periods are not necessarily indicative of the results of operations to be expected for any future interim period or the fiscal year ending December 31, 2022.

At September 30, 2022, the Company had cash, cash equivalents and marketable securities of $323.5 million. The Company has had recurring losses and incurred a loss of $85.8 million for the nine months ended September 30, 2022. Net cash used in operations for the nine months ended September 30, 2022 was $82.0 million. The Company believes that the cash, cash equivalents and marketable securities at the filing date of this Form 10-Q will be sufficient to meet estimated working capital requirements and fund planned operations for at least the next twelve months from the date of issuance of these financial statements.

During the next twelve months and beyond, the Company may take further steps to raise additional capital to meet its long-term liquidity needs including, but not limited to, one or more of the following: the licensing of drug candidates with existing or new collaborative partners, possible business combinations, issuance of debt, or the issuance of common stock or other securities via private placements or public offerings. Although the Company has been successful in raising capital in the past, there can be no assurance that additional financing will be available on acceptable terms, if at all, and the Company's negotiating position in capital-raising efforts may worsen as existing resources are used. There is also no assurance that the Company will be able to enter into further collaborative relationships. Additional equity financings may be dilutive to the Company's stockholders; debt financing, if available, may involve significant cash payment obligations and covenants that restrict the Company's ability to operate as a business; and licensing or strategic collaborations may result in royalties or other terms which reduce the Company's economic potential from products under development. The Company's ability to continue funding its planned operations beyond twelve months from the issuance date is also dependent on the timing and manner of payment of amounts due under the Settlement Agreement with Shareholder Representative Services LLC ("SRS") (refer to Note 13), in the event that the Company achieves the milestones related to those payments. The Company, at its option, may decide to pay those milestone payments in cash, shares of its common stock or a combination thereof. If the Company is unable to raise the funds necessary to meet its long-term liquidity needs, it may have to delay or discontinue the development of one or more programs, discontinue or delay ongoing or anticipated clinical trials, license out programs earlier than expected, raise funds at a significant discount or on other unfavorable terms, if at all, or sell all or a part of the Company.

COVID-19 continues to have an impact in the US and around the world. To date, we have managed delays and disruptions without significant impact in planned and ongoing preclinical and clinical trials, manufacturing or shipping. Potential impacts to our business include delays in planned and ongoing preclinical and clinical trials including enrollment of patients, disruptions in time and resources provided by independent clinical investigators, contract research organizations, and other third-party service providers, temporary closures of our facilities, disruptions or restrictions on our employees' ability to travel, and delays in manufacturing and/or shipments to and from third-party suppliers and contract manufacturers for APIs and drug product. Any prolonged negative impacts to our business could materially impact our operating results and could lead to impairments of our intangible in-process research and development ("IPR&D") assets with a carrying value of $27.2 million at September 30, 2022.

(2) Significant Accounting Policies

The significant accounting policies used in preparation of these condensed consolidated financial statements on Form 10-Q for the three and nine months ended September 30, 2022 are consistent with those discussed in Note 2 to the financial statements in our Annual Report on Form 10-K for the year ended December 31, 2021.

Recent Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies that are adopted by the Company as of the specified effective date. Unless otherwise discussed, the Company believes that the impact of recently issued standards that are not yet effective will not have a material impact on the Company's consolidated financial statements upon adoption.

In June 2016, the FASB issued guidance on the Measurement of Credit Losses on Financial Instruments. The guidance requires that credit losses be reported using an expected losses model rather than the incurred losses model that is currently used, and establishes additional disclosures related to credit risks. For available-for-sale debt securities with unrealized losses, the standard now requires allowances to be recorded instead of reducing the amortized cost of the investment. This standard will be effective for the Company on January 1, 2023. The adoption of this new guidance is not expected to have a material impact on the Company's consolidated financial statements and related disclosures.

(3) Fair Value Measurements

The following tables set forth the Company's financial assets and liabilities subject to fair value measurements:

	As of September 30, 2022	Level 1	Level 2	Level 3
		(In thousands)		
Assets:				
Money market funds and cash equivalents	$ 10,729	—	$ 10,729	—
Marketable securities	304,888	—	304,888	—
	$ 315,617	—	$ 315,617	—
Liabilities:				
Kolltan acquisition contingent consideration	$ —	—	—	$ —
	$ —	—	—	$ —

	As of December 31, 2021	Level 1	Level 2	Level 3
		(In thousands)		
Assets:				
Money market funds and cash equivalents	$ 26,220	—	$ 26,220	—
Marketable securities	369,107	—	369,107	—
	$ 395,327	—	$ 395,327	—
Liabilities:				
Kolltan acquisition contingent consideration	$ 6,862	—	—	$ 6,862
	$ 6,862	—	—	$ 6,862

The Company's financial assets consist mainly of money market funds, cash equivalents and marketable securities and are classified as Level 2 within the valuation hierarchy. The Company values its marketable securities utilizing independent pricing services which normally derive security prices from recently reported trades for identical or similar securities, making adjustments based on significant observable transactions. At each balance sheet date, observable market inputs may include trade information, broker or dealer quotes, bids, offers or a combination of these data sources.

The following table reflects the activity for the Company's contingent consideration liabilities measured at fair value using Level 3 inputs for the nine months ended September 30, 2022 (in thousands):

	Other Liabilities: Contingent Consideration
Balance at December 31, 2021	$ 6,862
Fair value adjustments included in operating expenses	(6,862)
Balance at September 30, 2022	$ —

The valuation technique used to measure fair value of the Company's Level 3 liabilities, which consist of contingent consideration related to the acquisition of Kolltan Pharmaceuticals, Inc. ("Kolltan") in 2016, was primarily an income approach. The significant unobservable inputs used in the fair value measurement of the contingent consideration are estimates including probability of success, discount rates and amount of time until the conditions of the milestone payments are met.

During the three and nine months ended September 30, 2022, the Company recorded a $0.0 million and $6.9 million gain on fair value remeasurement of contingent consideration, respectively, primarily due to the Company's decision to deprioritize the CDX-1140 program. During the three and nine months ended September 30, 2021, the Company recorded a $1.9 million and $1.2 million gain on fair value remeasurement of contingent consideration, respectively, primarily due to updated assumptions for the TAM program, changes in discount rates and the passage of time. The assumptions related to determining the fair value of contingent consideration include a significant amount of judgment, and any changes in the underlying estimates could have a material impact on the amount of contingent consideration adjustment recorded in any given period.

The Company did not have any transfers in or out of Level 3 assets or liabilities during the nine months ended September 30, 2022.

(4) Marketable Securities

The following is a summary of marketable debt securities, classified as available-for-sale:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
		(In thousands)		
September 30, 2022				
Marketable securities				
U.S. government and municipal obligations				
Maturing in one year or less	$ 132,422	$ —	$ (1,042)	$ 131,380
Maturing after one year through three years	3,912	—	(71)	3,841
Total U.S. government and municipal obligations	$ 136,334	$ —	$ (1,113)	$ 135,221
Corporate debt securities				
Maturing in one year or less	$ 168,698	$ —	$ (1,548)	$ 167,150
Maturing after one year through three years	2,564	—	(47)	2,517
Total corporate debt securities	$ 171,262	$ —	$ (1,595)	$ 169,667
Total marketable securities	$ 307,596	$ —	$ (2,708)	$ 304,888

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
		(In thousands)		
December 31, 2021				
Marketable securities				
U.S. government and municipal obligations				
Maturing in one year or less	$ 80,674	$ —	$ (133)	$ 80,541
Maturing after one year through three years	51,319	—	(184)	51,135
Total U.S. government and municipal obligations	$ 131,993	$ —	$ (317)	$ 131,676
Corporate debt securities				
Maturing in one year or less	$ 170,034	$ —	$ (28)	$ 170,006
Maturing after one year through three years	67,782	—	(357)	67,425
Total corporate debt securities	$ 237,816	$ —	$ (385)	$ 237,431
Total marketable securities	$ 369,809	$ —	$ (702)	$ 369,107

The Company holds investment-grade marketable securities, and none were in a continuous unrealized loss position for more than twelve months as of September 30, 2022 and December 31, 2021. The unrealized losses are attributable to changes in interest rates and the Company does not believe any unrealized losses represent other-than-temporary impairments. Marketable securities include $0.7 million and $1.3 million in accrued interest at September 30, 2022 and December 31, 2021, respectively.

(5) Intangible Assets

At September 30, 2022 and December 31, 2021, the carrying value of the Company's indefinite-lived intangible assets was $27.2 million. Indefinite-lived intangible assets consist of acquired IPR&D related to the development of the anti-KIT program, including barzolvolimab (also referred to as CDX-0159), which was recorded in connection with the Kolltan acquisition. Barzolvolimab is in Phase 2 development. As of September 30, 2022, the IPR&D asset related to the anti-KIT program had not reached technological feasibility nor did the asset have alternative future uses.

The Company performs an impairment test on IPR&D assets at least annually, or more frequently if events or changes in circumstances indicate that IPR&D assets may be impaired. Due to the nature of IPR&D projects, the Company may experience future delays or failures to obtain regulatory approvals to conduct clinical trials, failures of such clinical trials or other failures to achieve a commercially viable product, and as a result, may recognize further impairment losses in the future.

(6) Other Long-Term Liabilities

Other long-term liabilities include the following:

	September 30, 2022	December 31, 2021
	(In thousands)	
Net deferred tax liabilities related to IPR&D (Note 11)	$ 1,613	$ 1,613
Deferred Income From Sale of Tax Benefits	4,650	—
Contingent milestones (Note 3 and Note 13)	—	6,862
Deferred revenue (Note 10)	222	433
Total	6,485	8,908
Less current portion	(1,152)	(1,554)
Long-term portion	$ 5,333	$ 7,354

In March 2022, the Company received approval from the New Jersey Economic Development Authority and agreed to sell New Jersey tax benefits of $5.0 million to an independent third party for $4.7 million. Under the agreement, the Company must maintain a base of operations in New Jersey for five years or the tax benefits must be paid back on a pro-rata basis based on the number of years completed.

(7) Stockholders' Equity

In May 2016, the Company entered into a controlled equity offering sales agreement (the "Cantor Agreement") with Cantor Fitzgerald & Co. ("Cantor") to allow the Company to issue and sell shares of its common stock from time to time through Cantor, acting as agent. At September 30, 2022, the Company had $50.0 million remaining in aggregate gross offering price available under the Company's November 2020 prospectus.

The changes in Stockholders' Equity during the three and nine months ended September 30, 2022 and 2021 are summarized below:

	Common Stock Shares	Common Stock Par Value	Additional Paid-In Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
Consolidated balance at December 31, 2021	46,730,198	$ 47	$ 1,561,142	$ 1,894	$ (1,143,607)	$ 419,476
Shares issued under stock option and employee stock purchase plans	24,150	—	304	—	—	304
Stock-based compensation	—	—	3,153	—	—	3,153
Unrealized loss on marketable securities	—	—	—	(1,782)	—	(1,782)
Net loss	—	—	—	—	(23,050)	(23,050)
Consolidated balance at March 31, 2022	46,754,348	$ 47	$ 1,564,599	$ 112	$ (1,166,657)	$ 398,101
Shares issued under stock option and employee stock purchase plans	10,355	—	71	—	—	71
Stock-based compensation	—	—	3,454	—	—	3,454
Unrealized loss on marketable securities	—	—	—	(529)	—	(529)
Net loss	—	—	—	—	(36,004)	(36,004)
Consolidated balance at June 30, 2022	46,764,703	$ 47	$ 1,568,124	$ (417)	$ (1,202,661)	$ 365,093
Shares issued under stock option and employee stock purchase plans	331,360	—	2,306	—	—	2,306
Stock-based compensation	—	—	4,496	—	—	4,496
Unrealized gain on marketable securities	—	—	—	305	—	305
Net loss	—	—	—	—	(26,784)	(26,784)
Consolidated balance at September 30, 2022	47,096,063	$ 47	$ 1,574,926	$ (112)	$ (1,229,445)	$ 345,416

	Common Stock Shares	Common Stock Par Value	Additional Paid-In Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
			(In thousands, except share amounts)			
Consolidated balance at December 31, 2020	39,603,771	$ 40	$ 1,279,824	$ 2,589	$ (1,073,096)	$ 209,357
Shares issued under stock option and employee stock purchase plans	10,867	—	74	—	—	74
Stock-based compensation	—	—	1,275	—	—	1,275
Unrealized loss on marketable securities	—	—	—	(2)	—	(2)
Net loss	—	—	—	—	(16,538)	(16,538)
Consolidated balance at March 31, 2021	39,614,638	$ 40	$ 1,281,173	$ 2,587	$ (1,089,634)	$ 194,166
Shares issued under stock option and employee stock purchase plans	2,058	—	(25)	—	—	(25)
Stock-based compensation	—	—	1,509	—	—	1,509
Unrealized gain on marketable securities	—	—	—	5	—	5
Net loss	—	—	—	—	(13,373)	(13,373)
Consolidated balance at June 30, 2021	39,616,696	$ 40	$ 1,282,657	$ 2,592	$ (1,103,007)	$ 182,282
Shares issued under stock option and employee stock purchase plans	201,406	—	2,004	—	—	2,004
Shares issued in underwritten offering, net	6,845,238	7	269,886	—	—	269,893
Stock-based compensation	—	—	3,029	—	—	3,029
Unrealized loss on marketable securities	—	—	—	(44)	—	(44)
Net loss	—	—	—	—	(20,452)	(20,452)
Consolidated balance at September 30, 2021	46,663,340	$ 47	$ 1,557,576	$ 2,548	$ (1,123,459)	$ 436,712

(8) Stock-Based Compensation

A summary of stock option activity for the nine months ended September 30, 2022 is as follows:

	Shares	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term (In Years)
Options outstanding at December 31, 2021	4,077,667	$ 30.02	8.0
Granted	1,584,900	$ 22.89	
Exercised	(353,622)	$ 6.71	
Canceled	(118,974)	$ 50.12	
Options outstanding at September 30, 2022	5,189,971	$ 28.97	8.07
Options vested and expected to vest at September 30, 2022	5,031,072	$ 29.21	8.05
Options exercisable at September 30, 2022	1,985,506	$ 41.56	6.74
Shares available for grant under the 2021 Plan	1,838,291		

The weighted average grant-date fair value of stock options granted during the three and nine months ended September 30, 2022 was $25.38 and $17.36, respectively.

The aggregate intrinsic value of stock options vested and expected to vest at September 30, 2022 was $45.6 million. The aggregate intrinsic value of stock options exercisable at September 30, 2022 was $23.6 million. As of September 30, 2022, total compensation cost related to non-vested employee, consultant and non-employee director stock options not yet recognized was approximately $46.7 million, net of estimated forfeitures, which is expected to be recognized as expense over a weighted average period of 2.8 years.

Stock-based compensation expense for the three and nine months ended September 30, 2022 and 2021 was recorded as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
	(In thousands)		(In thousands)	
Research and development	$ 2,342	$ 1,504	$ 5,754	$ 2,927
General and administrative	2,154	1,525	5,349	2,886
Total stock-based compensation expense	$ 4,496	$ 3,029	$ 11,103	$ 5,813

The fair values of employee, consultant and non-employee director stock options granted during the three and nine months ended September 30, 2022 and 2021 were valued using the Black-Scholes option pricing model with the following assumptions:

	Three months ended September 30,		Nine months ended September 30,	
	2022	2021	2022	2021
Expected stock price volatility	91%	98%	90 – 97%	97 – 98%
Expected option term	6.0 Years	6.0 Years	6.0 Years	6.0 Years
Risk-free interest rate	2.9 – 3.5%	1.1 – 1.2%	1.7 – 3.6%	0.8 – 1.3%
Expected dividend yield	None	None	None	None

(9) Accumulated Other Comprehensive Income

The changes in accumulated other comprehensive income, which is reported as a component of stockholders' equity, for the nine months ended September 30, 2022 are summarized below:

	Unrealized Loss on Marketable Securities	Foreign Currency Items	Total
		(In thousands)	
Balance at December 31, 2021	$ (702)	$ 2,596	$ 1,894
Other comprehensive loss	(2,006)	—	(2,006)
Balance at September 30, 2022	$ (2,708)	$ 2,596	$ (112)

No amounts were reclassified out of accumulated other comprehensive income during the nine months ended September 30, 2022.

(10) Revenue

Contract and Grants Revenue

The Company has entered into agreements with Rockefeller University and Gilead Sciences pursuant to which the Company performs manufacturing and research and development services on a time-and-materials basis or at a negotiated fixed-price. The Company recognized $0.0 million and $0.2 million in revenue under these agreements during the three and nine months ended September 30, 2022, respectively, and $0.1 million and $4.0 million during the three and nine months ended September 30, 2021, respectively.

Contract Assets and Liabilities

At September 30, 2022 and December 31, 2021, the Company's right to consideration under all contracts was considered unconditional, and as such, there were no recorded contract assets. At September 30, 2022, the Company had $0.2 million in contract liabilities recorded, which is expected to be recognized during the next 12 months as manufacturing and research and development services are performed. At December 31, 2021, the Company had $0.4 million in contract liabilities recorded. Revenue recognized from contract liabilities as of December 31, 2021 during the three and nine months ended September 30, 2022 was $0.2 million and $0.4 million, respectively.

(11) Income Taxes

The Company has evaluated the positive and negative evidence bearing upon the realizability of its net deferred tax assets and considered its history of losses, ultimately concluding that it is "more likely than not" that the Company will not recognize the benefits of federal, state and foreign deferred tax assets and, as such, has maintained a full valuation allowance on its deferred tax assets as of September 30, 2022 and December 31, 2021.

The net deferred tax liability of $1.6 million at September 30, 2022 and December 31, 2021 relates to the temporary differences associated with the IPR&D intangible assets acquired in previous business combinations and is not deductible for tax purposes.

Massachusetts, New Jersey, New York and Connecticut are the jurisdictions in which the Company primarily operates or has operated and has income tax nexus. The Company is not currently under examination by these or any other jurisdictions for any tax year.

(12) Net Loss Per Share

Basic net loss per common share is based upon the weighted-average number of common shares outstanding during the period, excluding restricted stock that has been issued but is not yet vested. Diluted net loss per common share is based upon the weighted-average number of common shares outstanding during the period plus additional weighted-average potentially dilutive common shares outstanding during the period when the effect is dilutive. In periods in which the Company reports a net loss, there is no difference between basic and diluted net loss per share because dilutive shares of common stock are not assumed to have been issued as their effect is anti-dilutive. The potentially dilutive common shares that have not been included in the net loss per common share calculations because the effect would have been anti-dilutive are as follows:

	Nine Months Ended September 30,	
	2022	2021
Stock Options	5,189,971	4,129,626
Restricted Stock	—	—
	5,189,971	4,129,626

(13) Kolltan Acquisition

On November 29, 2016, the Company acquired all of the share and debt interests of Kolltan, a clinical-stage biopharmaceutical company, in exchange for 1,217,200 shares of the Company's common stock plus contingent consideration in the form of development, regulatory approval and sales-based milestones ("Kolltan Milestones") of up to $172.5 million payable in cash, in shares of Celldex's common stock or a combination of both, in the sole discretion of Celldex and subject to provisions of the Agreement and Plan of Merger, dated November 1, 2016 (the "Merger Agreement").

In October 2019, the Company received a letter from SRS, the hired representative of the former stockholders of Kolltan, notifying the Company that it objected to the Company's characterization of the development, regulatory approval and sales-based Kolltan Milestones relating to CDX-0158 as having been abandoned and contending instead that the related milestone payments are due from Celldex to the Kolltan stockholder.

On August 18, 2020, Celldex filed a Verified Complaint in the Court of Chancery of the State of Delaware against SRS (acting in its capacity as the representative of the former stockholders of Kolltan pursuant to the Merger Agreement) seeking declaratory relief with respect to the rights and obligations of the parties relating to certain contingent milestone payments under the Merger Agreement relating to the discontinued CDX-0158 program (the "Litigation").

On June 20, 2022, the Company entered into a binding settlement term sheet (the "Term Sheet") with SRS, related to the Litigation, which, upon execution of a definitive settlement agreement and the payment of the Initial Payment (as defined below), would result in the joint dismissal, with prejudice, of all claims and counterclaims in the Litigation. The definitive settlement agreement between the Company and SRS was executed on July 15, 2022 (the "Settlement Agreement") and the Company and SRS jointly filed a Stipulation of Dismissal with prejudice relating to the Litigation on July 19, 2022.

Pursuant to the terms of the Term Sheet and the Settlement Agreement, all milestone payments provided for by the Merger Agreement are replaced in their entirety with the following payments, each of which is payable only once:

(i) The Company paid $15.0 million upon execution of the Settlement Agreement (the "Initial Payment").

(ii) The Company shall pay $15.0 million upon the Successful Completion (as defined in the Term Sheet) of a Phase 2 Clinical Trial (as defined in the Merger Agreement) of CDX-0159, subject to the $2.5 million contractual credit as set forth in the Merger Agreement.

(iii) The Company shall pay $52.5 million upon the first United States Food and Drug Administration or European Medicines Agency, or, in each case, any successor organization, regulatory approval of a Surviving Company Product (as defined the Term Sheet).

The above payment obligations replace, in their entirety, the contingent consideration in the form of development, regulatory approval and sales-based milestones of up to $172.5 million contained in the Merger Agreement.

Under the Settlement Agreement, each of the Company and SRS provided broad mutual releases of all claims relating to or arising out of the Merger Agreement, including without limitation, all claims brought in the Litigation or that could have been brought in the Litigation.

The Company paid the Initial Payment in cash during the three months ended September 30, 2022. Any future milestone payments related to the CDX-0159 program, which was subject to the Litigation, will be recorded when and if payment becomes probable and reasonably estimable in accordance with the loss contingency model under ASC 450. Milestones related to the remaining Surviving Company Products are measured at fair value (refer to Note 3). When and if any of the remaining payments described above become due, they shall be payable, at the Company’s sole election, in either cash or stock (as set forth in the Merger Agreement) or a combination thereof.

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

Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995: This report on Form 10-Q contains forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 under Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements include statements with respect to our beliefs, plans, objectives, goals, expectations, anticipations, assumptions, estimates, intentions and future performance, and involve known and unknown risks, uncertainties and other factors, which may be beyond our control, and which may cause our actual results, performance or achievements to be materially different from future results, performance or achievements expressed or implied by such forward-looking statements. All statements other than statements of historical fact are statements that could be forward-looking statements. You can identify these forward-looking statements through our use of words such as "may," "will," "can," "anticipate," "assume," "should," "indicate," "would," "believe," "contemplate," "expect," "seek," "estimate," "continue," "plan," "point to," "project," "predict," "could," "intend," "target," "potential" and other similar words and expressions of the future.

There are a number of important factors that could cause the actual results to differ materially from those expressed in any forward-looking statement made by us. These factors include, but are not limited to:

- our dependence on product candidates, which are still in an early development stage;
- our ability to successfully complete research and further development, including preclinical and clinical studies, and, if we obtain regulatory approval, commercialization of our drug candidates and the growth of the markets for those drug candidates;
- our anticipated timing for preclinical development, regulatory submissions, commencement and completion of clinical trials and product approvals;
- the impact of the COVID-19 pandemic on our business or on the economy generally;
- whether the COVID-19 pandemic will affect the timing of the completion of our planned and/or currently ongoing preclinical/clinical trials;
- our ability to negotiate strategic partnerships, where appropriate, for our drug candidates;
- our ability to manage multiple clinical trials for a variety of drug candidates at different stages of development;
- the cost, timing, scope and results of ongoing preclinical and clinical testing;
- our expectations of the attributes of our product and development candidates, including pharmaceutical properties, efficacy, safety and dosing regimens;
- the cost, timing and uncertainty of obtaining regulatory approvals for our drug candidates;
- the availability, cost, delivery and quality of clinical management services provided by our clinical research organization partners;
- the availability, cost, delivery and quality of clinical and commercial-grade materials produced by our own manufacturing facility or supplied by contract manufacturers, suppliers and partners;
- our ability to develop and commercialize products before competitors that are superior to the alternatives developed by such competitors;

- our ability to develop technological capabilities, including identification of novel and clinically important targets, exploiting our existing technology platforms to develop new drug candidates and expand our focus to broader markets for our existing targeted therapeutics;

- the cost of paying the future milestones, if any, under the Settlement Agreement with SRS;

- our ability to raise sufficient capital to fund our preclinical and clinical studies and to meet our long-term liquidity needs, on terms acceptable to us, or at all. If we are unable to raise the funds necessary to meet our long-term liquidity needs, we may have to delay or discontinue the development of one or more programs, discontinue or delay ongoing or anticipated clinical trials, license out programs earlier than expected, raise funds at significant discount or on other unfavorable terms, if at all, or sell all or part of our business;

- our ability to protect our intellectual property rights and our ability to avoid intellectual property litigation, which can be costly and divert management time and attention;

- our ability to develop and commercialize products without infringing the intellectual property rights of third parties; and

- the risk factors set forth elsewhere in this quarterly report on Form 10-Q and the factors listed under the headings "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our annual report on Form 10-K for the year ended December 31, 2021 and other reports that we file with the Securities and Exchange Commission.

All forward-looking statements are expressly qualified in their entirety by this cautionary notice. You are cautioned not to place undue reliance on any forward-looking statements, which speak only as of the date of this report or the date of the document incorporated by reference into this report. We have no obligation, and expressly disclaim any obligation, to update, revise or correct any of the forward-looking statements, whether as a result of new information, future events or otherwise. We have expressed our expectations, beliefs and projections in good faith, and we believe they have a reasonable basis. However, we cannot assure you that our expectations, beliefs or projections will result or be achieved or accomplished.

OVERVIEW

We are a biopharmaceutical company dedicated to developing therapeutic monoclonal and bispecific antibodies that address diseases for which available treatments are inadequate. Our drug candidates include antibody-based therapeutics which have the ability to engage the human immune system and/or directly affect critical pathways to improve the lives of patients with inflammatory diseases and many forms of cancer.

We are focusing our efforts and resources on the continued research and development of:

- Barzolvolimab (also referred to as CDX-0159), a monoclonal antibody that specifically binds the KIT receptor and potently inhibits its activity, is currently being studied across multiple mast cell driven diseases including:

    - Chronic Urticarias: In June and July 2022 respectively, we announced that enrollment had opened and the first patients had been dosed in Phase 2 studies in chronic spontaneous urticaria (CSU) and chronic inducible urticaria (CIndU). Positive interim data from the ongoing Phase 1b study in CSU were reported in July 2022. Positive interim data from the Phase 1b study in CIndU were reported in July and September 2021 in patients with cold urticaria and symptomatic dermographism;

    - Prurigo Nodularis (PN): In December 2021 we announced that the first patient had been dosed in a Phase 1b study in PN; and

    - Eosinophilic Esophagitis (EoE): We plan to initiate a Phase 2 study in EoE in the first half of 2023.

- Our next generation bispecific antibody platform to support pipeline expansion with additional candidates for inflammatory diseases and oncology. Targets are being selected based on new science as well as their compatibility to be used in bispecific antibody formats with Celldex's existing antibody programs. Development is focused on emerging, important pathways controlling inflammatory diseases or immunity to tumors.

We routinely work with external parties to collaboratively advance our drug candidates. In addition to Celldex-led studies, we also have an Investigator Initiated Research (IIR) program with multiple studies ongoing with our drug candidates.

Our goal is to build a fully integrated, commercial-stage biopharmaceutical company that develops important therapies for patients with unmet medical needs. We believe our program assets provide us with the strategic options to either retain full economic rights to our innovative therapies or seek favorable economic terms through advantageous commercial partnerships. This approach allows us to maximize the overall value of our technology and product portfolio while best ensuring the expeditious development of each individual product. Currently, all programs are fully owned by us.

The expenditures that will be necessary to execute our business plan are subject to numerous uncertainties. Completion of clinical trials may take several years or more, and the length of time generally varies substantially according to the type, complexity, novelty and intended use of a drug candidate. It is not unusual for the clinical development of these types of drug candidates to each take five years or more, and for total development costs to exceed $100 million for each drug candidate. We estimate that clinical trials of the type we generally conduct are typically completed over the following timelines:

Clinical Phase	Estimated Completion Period
Phase 1	1 - 2 Years
Phase 2	1 - 5 Years
Phase 3	1 - 5 Years

The duration and the cost of clinical trials may vary significantly over the life of a project as a result of differences arising during the clinical trial protocol, including, among others, the following:

- the number of patients that ultimately participate in the trial;
- the duration of patient follow-up that seems appropriate in view of results;
- the number of clinical sites included in the trials;
- the length of time required to enroll suitable patient subjects; and
- the efficacy and safety profile of the drug candidate.

We test potential drug candidates in numerous preclinical studies for safety, toxicology and immunogenicity. We may then conduct multiple clinical trials for each drug candidate. As we obtain results from trials, we may elect to discontinue or delay clinical trials for certain drug candidates in order to focus our resources on more promising drug candidates.

An element of our business strategy is to pursue the discovery, research and development of a broad portfolio of drug candidates. This is intended to allow us to diversify the risks associated with our research and development expenditures. To the extent we are unable to maintain a broad range of drug candidates, our dependence on the success of one or a few drug candidates increases.

Regulatory approval is required before we can market our drug candidates as therapeutic products. In order to proceed to subsequent clinical trial stages and to ultimately achieve regulatory approval, the regulatory agencies must conclude that our clinical data demonstrate that our product candidates are safe and effective. Historically, the results from preclinical testing and early clinical trials (through Phase 2) have often not been predictive of results obtained in later clinical trials. A number of new drugs and biologics have shown promising results in early clinical trials but subsequently failed to establish sufficient safety and efficacy data to obtain necessary regulatory approvals.

Furthermore, our business strategy includes the option of entering into collaborative arrangements with third parties to complete the development and commercialization of our drug candidates. In the event that third parties take over the clinical trial process for one of our drug candidates, the estimated completion date would largely be under control of that third party rather than us. We cannot forecast with any degree of certainty which proprietary products, if any, will be subject to future collaborative arrangements, in whole or in part, and how such arrangements would affect our development plan or capital requirements. Our programs may also benefit from subsidies, grants, contracts or government or agency-sponsored studies that could reduce our development costs.

As a result of the uncertainties discussed above, among others, it is difficult to accurately estimate the duration and completion costs of our research and development projects or when, if ever, and to what extent we will receive cash inflows from the commercialization and sale of a product. Our inability to complete our research and development projects in a timely manner or our failure to enter into collaborative agreements, when appropriate, could significantly increase our capital requirements and could adversely impact our liquidity. These uncertainties could force us to seek additional, external sources of financing from time to time in order to continue with our business strategy. Our inability to raise additional capital, or to do so on terms reasonably acceptable to us, would jeopardize the future success of our business.

During the past five years through December 31, 2021, we incurred an aggregate of $301.1 million in research and development expenses. The following table indicates the amount incurred for each of our significant research programs and for other identified research and development activities during the nine months ended September 30, 2022 and 2021. The amounts disclosed in the following table reflect direct research and development costs, license fees associated with the underlying technology and an allocation of indirect research and development costs to each program.

	Nine Months Ended September 30, 2022	Nine Months Ended September 30, 2021
	(In thousands)	
Barzolvolimab/Anti-KIT Program	$ 35,519	$ 18,264
CDX-585	8,638	3,233
CDX-527	1,659	3,008
CDX-1140 and CDX-301	3,333	4,097
Other Programs	10,210	10,031
Total R&D Expense	$ 59,359	$ 38,633

Clinical Development Programs

COVID-19 continues to have an impact in the US and around the world. To date, we have managed delays and disruptions without significant impact in planned and ongoing preclinical and clinical trials, manufacturing or shipping. Potential impacts to our business include delays in planned and ongoing preclinical and clinical trials including enrollment of patients, disruptions in time and resources provided by independent clinical investigators, contract research organizations, and other third-party service providers, temporary closures of our facilities, disruptions or restrictions on our employees' ability to travel, and delays in manufacturing and/or shipments to and from third-party suppliers and contract manufacturers for APIs and drug product.

Barzolvolimab (also referred to as CDX-0159)

Barzolvolimab is a humanized monoclonal antibody that specifically binds the receptor tyrosine kinase KIT and potently inhibits its activity. KIT is expressed in a variety of cells, including mast cells, and its activation by its ligand SCF regulates mast cell growth, differentiation, survival, chemotaxis and degranulation. Barzolvolimab is designed to block KIT activation by disrupting both SCF binding and KIT dimerization. We believe that by targeting KIT, barzolvolimab may be able to inhibit mast cell activity and decrease mast cell numbers to provide potential clinical benefit in mast cell related diseases.

In certain inflammatory diseases, such as chronic spontaneous urticaria (CSU), also known as chronic idiopathic urticaria (CIU), and chronic inducible urticaria (CIndU), mast cell degranulation plays a central role in the onset and progression of the disease. In June 2020, we completed a randomized, double-blind, placebo-controlled, single ascending dose escalation Phase 1a study of barzolvolimab in healthy subjects (n=32; 8 subjects per cohort, 6 barzolvolimab; 2 placebo). Subjects received a single intravenous infusion of barzolvolimab at 0.3, 1.0, 3.0, or 9.0 mg/kg or placebo. The objectives of the study included safety and tolerability, pharmacokinetics (PK) and pharmacodynamics (tryptase and stem cell factor) and immunogenicity. Tryptase is an enzyme synthesized and secreted almost exclusively by mast cells and decreases in plasma tryptase levels are believed to reflect a systemic reduction in mast cell burden in both healthy volunteers and in disease. Data from the study were featured in a late breaking presentation at the European Academy of Allergy and Clinical Immunology (EAACI) Annual Congress 2020 in June. Barzolvolimab demonstrated a favorable safety profile as well as profound and durable reductions of plasma tryptase, consistent with systemic mast cell suppression.

These data supported expansion of the barzolvolimab program into mast cell driven diseases, including initially in CSU and CIndU, diseases where mast cell degranulation plays a central role in the onset and progression of the disease. The prevalence of CSU and CIndU is approximately 0.5-1% of the total population or up to 1 to 3 million patients in the United States alone (Weller et al. 2010. Hautarzt. 61(8), Bartlett et al. 2018. DermNet. Org). CSU presents as itchy hives, angioedema or both for at least six weeks without a specific trigger; multiple episodes can play out over years or even decades. About 50% of patients with CSU achieve symptomatic control with antihistamines or leukotriene receptor antagonists. Omalizumab, an IgE inhibitor, provides relief for roughly half of the remaining antihistamine/leukotriene refractory patients. Consequently, there is a need for additional therapies. CIndUs are forms of urticaria that have an attributable cause or trigger associated with them, typically resulting in hives or wheals. We are exploring cold-induced, dermographism (scratch-induced) and cholinergic (exercise-induced) urticarias. In June and July 2022 respectively, we announced the initiation of Phase 2 studies in both CSU and CIndU.

In October 2020, we announced that enrollment had opened and the first patient had been dosed in a Phase 1b multi-center study of barzolvolimab in CSU. This study is a randomized, double-blind, placebo-controlled clinical trial designed to assess the safety of multiple ascending doses of barzolvolimab in up to 40 patients with CSU who remain symptomatic despite treatment with antihistamines. Secondary and exploratory objectives include pharmacokinetic and pharmacodynamic assessments, including measurement of tryptase and stem cell factor levels and clinical activity outcomes (impact on urticaria symptoms, disease control, clinical response) as well as quality of life assessments. Barzolvolimab is administered intravenously (0.5, 1.5, 3 and 4.5 mg/kg at varying dosing schedules) as add on treatment to H1-antihistamines, either alone or in combination with H2-antihistamines and/or leukotriene receptor agonists.

In June 2022, we reported positive interim data from the CSU study. As of the data cut-off on May 23, 2022, 34 patients with CSU were enrolled and treated [26 barzolvolimab (n=9 in 0.5 mg/kg; n=8 in 1.5 mg/kg; n=9 in 3.0 mg/kg) and 8 placebo]. The 0.5 mg/kg and 1.5 mg/kg cohorts had completed study participation through 24 weeks; 7 of 12 patients in the 3.0 mg/kg cohort had completed week 12; enrollment in the 4.5 mg/kg cohort was ongoing. Adverse events through data cutoff and hematology data through week 12 were included for all dose groups; clinical activity and tryptase data were included through week 12 for 0.5 mg/kg and 1.5 mg/kg, and through week 8 for 3 mg/kg (ongoing; reflecting the administration of only one dose). Data shows that barzolvolimab results in rapid, marked and durable responses in patients with moderate to severe CSU refractory to antihistamines, including patients with prior omalizumab treatment.

- Mean reduction from baseline in urticaria activity (Urticaria Activity Score over 7 days or UAS7) of 66.6% in all patients in the 1.5 mg/kg dose group (n=8) at week 12 and 75.1% in all patients in the 3.0 mg/kg dose group (n=9) at week 8 (reflects only one dose), demonstrating clinically meaningful symptom improvements for patients.

- Complete response (UAS7=0) of 57.1% in the 1.5 mg/kg dose group at week 12 and 44.4% at week 8 (reflects only one dose) in the 3 mg/kg dose group which is a key therapeutic goal.

- 75% well-controlled disease by Urticaria Control Test (UCT) in the 1.5 mg/kg dose group at week 12 and 83.3% in the 3 mg/kg dose group at week 8 (reflects only one dose).

- Patients with prior omalizumab therapy had similar symptom improvement as all patients.

- All three doses of barzolvolimab markedly improved urticaria symptoms and disease control, with rapid improvement in itch and hives. As predicted, the lowest dose of 0.5 mg/kg resulted in suboptimal clinical activity compared to the higher doses.

- Rapid onset of responses after initial dosing and sustained durability were observed; onset as early as 1 week after the first dose.

- Tryptase suppression, indicative of mast cell depletion, paralleled symptom improvement, demonstrating the impact of mast cell depletion on CSU disease activity.

- Barzolvolimab was well tolerated with a favorable safety profile; effects of multiple dose administration were consistent with observations in single dose studies. Most AEs were mild or moderate in severity and resolved while on study, with none leading to treatment discontinuation. The most common treatment emergent adverse events were urinary tract infections, headache, neutropenia and back pain. UTIs, headache and backpain were all reported as unrelated to treatment. Changes in hematologic parameters were consistent with observations in single dose studies, with no pattern of further decreases with multiple doses; hematologic values generally remained within the normal range.

In June 2022, we announced that the first patient has been dosed in a Phase 2 study in patients with CSU who remain symptomatic despite antihistamine therapy. The study will be conducted at more than 75 sites across 10 or more countries. The study is a randomized, double-blind, placebo-controlled, parallel group Phase 2 study evaluating the efficacy and safety profile of multiple dose regimens of barzolvolimab to determine the optimal dosing strategy. Approximately 168 patients will be randomly assigned on a 1:1:1:1 ratio to receive subcutaneous injections of barzolvolimab at 75 mg every 4 weeks, 150 mg every 4 weeks, 300 mg every 8 weeks or placebo during a 16-week placebo-controlled treatment phase. Patients will then enter a 36-week active treatment phase, in which patients not already randomized to barzolvolimab at 150 mg every 4 weeks or 300 mg every 8 weeks will be randomized 1:1 to receive one of these two dose regimens; patients already randomized to these treatment arms will remain on the same regimen as during the placebo-controlled treatment phase. Following the treatment period, patients will enter a 24-week follow up phase. The primary endpoint of the study is mean change in baseline to Week 12 in UAS7 (Urticaria Activity Score over 7 days). Secondary endpoints include safety and other assessments of clinical activity including ISS7 (Itch Severity Score over 7 days), HSS7 (Hive Severity Score over 7 days) and AAS7 (Angioedema Activity Score over 7 days).

In December 2020, we announced that enrollment had opened and the first patient had been dosed in a Phase 1b study in CIndU being conducted in Germany in patients who are refractory to antihistamines. This study is an open label clinical trial designed to evaluate the safety of a single dose (3 mg/kg) of barzolvolimab in patients with cold urticaria (n=10) or symptomatic dermographism (n=10). In March and June 2021, respectively, we added a third cohort (single dose, 3 mg/kg) in patients with cholinergic urticaria (n=10) and a fourth cohort at a lower dose (single dose, 1.5 mg/kg) in cold urticaria. Patient's symptoms are induced via provocation testing that resembles real life triggering situations. Secondary and exploratory objectives include pharmacokinetic and pharmacodynamic assessments, including changes from baseline provocation thresholds, measurement of tryptase and stem cell factor levels, clinical activity outcomes (impact on urticaria symptoms, disease control, clinical response), quality of life assessments and measurement of tissue mast cells through skin biopsies. Barzolvolimab is administered intravenously on Day 1 as add on treatment to H1-antihistamines.

In July 2021, we reported positive interim data from the cold urticaria and symptomatic dermographism cohorts. As of the data cut-off on June 11, 2021, 20 patients had received a single intravenous infusion of barzolvolimab at 3 mg/kg, including 11 patients with cold urticaria and 9 patients with symptomatic dermographism. Patients had high disease activity as assessed by provocation threshold testing. In patients with cold urticaria and symptomatic dermographism baseline critical temperature thresholds were 18.9°C/66°F (range: 5-27°C/41-80.6°F) and FricTest® thresholds were 3.8 (range: 3-4) of 4 pins. Safety results were reported for all 20 patients; activity results were reported for the 19 patients who received a full dose of barzolvolimab. 14 of 19 patients completed the 12-week study observation period and five were ongoing (range of 2-8 weeks) as of June 11, 2021.

- All 19/19 (100)% patients experienced a clinical response as assessed by provocation threshold testing; 18/19 (95)% experienced a complete response and 1/19 (5)% experienced a partial response.10/10 (100)% patients with cold urticaria experienced a complete response. 8/9 (89)% patients with symptomatic dermographism experienced a complete response and 1/9 (11)% experienced a partial response. Compete responses were observed in all 3 patients (1 cold urticaria; 2 symptomatic dermographism) with prior Xolair® (omalizumab) experience, including two who were Xolair refractory.

- Rapid onset of responses after dosing and sustained durability were observed. Most patients with cold urticaria and symptomatic dermographism experienced a complete response by week 1 and by week 4, respectively. The median duration of response for patients was 77+ days for cold urticaria and 57+ days for symptomatic dermographism.

- Improvements in disease activity as reported by physician's and patient's global assessment of disease severity were consistent with the complete responses as measured by provocation testing.

- A single 3 mg/kg dose of barzolvolimab resulted in rapid, marked and durable suppression of serum tryptase and depletion of skin mast cells (87% depletion) as measured through biopsy. The kinetics of serum tryptase and skin mast cell depletion mirrored clinical activity. This confirmed that serum tryptase level is a robust pharmacodynamic biomarker for assessing mast cell burden and clinical activity in inducible urticaria and potentially in other diseases with mast cell driven involvement.

- Barzolvolimab was generally well tolerated. The most common adverse events were hair color changes, mild infusion reactions, and transient changes in taste perception. Hair color changes (generally small areas of hair color lightening) and taste disorders (generally partial changes of ability to taste salt) are consistent with inhibiting KIT signaling in other cell types and are expected to be fully reversible. As previously reported in March 2021, a single severe infusion reaction of brief loss of consciousness was observed in a patient with a history of fainting. The patient rapidly recovered. Importantly, no evidence of mast cell activation as measured by serum tryptase monitoring was observed. There was no evidence of clinically significant decreases in hematology parameters—an important finding for a KIT inhibitor.

- One patient with symptomatic dermographism enrolled in the study also had a diagnosis of prurigo nodularis (PN). After a single dose of barzolvolimab, this patient experienced both a complete response of symptomatic dermographism and notable improvement of the PN.

In September 2021, we reported additional positive data from the study on measurements of symptom control and quality of life. A single dose of barzolvolimab (3 mg/kg) resulted in a rapid and sustained improvement in urticaria control and greatly reduced disease impact on quality of life, as measured by the Urticaria Control Test (UCT) and Dermatology Life Quality Index (DLQI).

In July 2022 we announced that the first patient has been dosed in a Phase 2 study in patients with CIndU who remain symptomatic despite antihistamine therapy. The study will be conducted at more than 75 sites across 10 or more countries. The randomized, double-blind, placebo-controlled, parallel group Phase 2 study is evaluating the efficacy and safety profile of multiple dose regimens of barzolvolimab in patients with CIndU to determine the optimal dosing strategy. Approximately 180 patients in 2 cohorts (differentiated by CIndU subtype) including 90 patients with cold urticaria and 90 patients with symptomatic dermographism will be randomly assigned on a 1:1:1 ratio to receive subcutaneous injections of barzolvolimab at 150 mg every 4 weeks, 300 mg every 8 weeks or placebo during a 20-week treatment phase. Patients will then enter a follow-up phase for an additional 24 weeks. The primary endpoint of the study is the percentage of patients with a negative provocation test at Week 12 (using TempTest(R) and FricTest(R)). Secondary endpoints include safety and other assessments of clinical activity including CTT (Critical Temperature Threshold), CFT (Critical Friction Threshold) and WI-NRS (Worst itch numeric rating scale).

We have expanded clinical development of barzolvolimab into prurigo nodularis (PN). PN is a chronic skin disease characterized by the development of hard, intensely itchy (pruritic) nodules on the skin. Mast cells through their interactions with sensory neurons and other immune cells are believed to play an important role in amplifying chronic itch and neuroinflammation, both of which are a hallmark of PN. There is currently only one FDA approved therapy for PN, representing an area of significant unmet need. Industry sources estimate there are approximately 154,000 patients in the United States with PN who have undergone treatment within the last 12 months and, of these, approximately 75,000 would be biologic-eligible. In December 2021, the first patient was dosed in a Phase 1b multi-center, randomized, double-blind, placebo-controlled study designed to assess the safety and treatment effects across multiple dosing cohorts of barzolvolimab in up to 30 patients with PN.

Manufacturing activities to support the introduction of the barzolvolimab subcutaneous formulation into the clinical program have been completed and, in September 2021, we initiated dosing in a randomized, double-blind, placebo-controlled, Phase 1 study designed to evaluate the safety of single ascending doses of the subcutaneous formulation of barzolvolimab in healthy volunteers. In February 2022, we reported that subcutaneous administration of barzolvolimab was well tolerated and that multiple dose levels have been identified that possess promising pharmacokinetic and pharmacodynamic properties. Importantly, subcutaneous delivery of barzolvolimab resulted in dose-dependent, rapid and sustained decreases in serum tryptase compared with placebo and achieved sufficient exposure to produce tryptase suppression levels comparable with the levels that generated impressive clinical activity observed in the Phase 1 CIndU intravenous study. The Phase 2 multi-dose studies in urticaria are designed to evaluate 75mg and 150mg administered every 4 weeks and 300mg administered every 8 weeks. These doses support a 0.5 to 2 ml injection volume, allowing for a single injection as barzolvolimab advances towards potential commercialization. In 2022, we initiated transfer of our current barzolvolimab manufacturing process to a contract manufacturing organization to support late-stage trials and to prepare for potential commercialization.

In February 2022, we also reported interim data after completing the in-life dosing portion of our nine-month chronic toxicology study in non-human primates; a subset of the animals will continue to be followed beyond clearance of the barzolvolimab antibody to study completion. As expected and consistent with other KIT-targeting agents, impact on spermatogenesis was observed which is anticipated to be fully reversible upon clearance of the antibody. There were no other clinically adverse findings reported in the study. We believe these data strongly support our Phase 2 studies in urticaria and in future indications.

In February 2022, we announced that we will be expanding clinical development of barzolvolimab into eosinophilic esophagitis (EoE), the most common type of eosinophilic gastrointestinal disease. EoE is a chronic inflammatory disease of the esophagus characterized by the infiltration of eosinophils. This chronic inflammation can result in trouble swallowing, chest pain, vomiting and impaction of food in the esophagus, a medical emergency. Several studies have suggested that mast cells may be an important driver in the disease, demonstrating that the number and activation state of mast cells are greatly increased in EoE biopsies and that mast cell signatures correlate with markers of inflammation, fibrosis, pain and disease severity. Currently, there is only one FDA approved therapy for EoE, representing an area of significant unmet need. Industry sources estimate there are approximately 160,000 patients in the United States with EoE who have undergone treatment within the last 12 months and, of these, approximately 48,000 would be biologic-eligible. Given the lack of effective therapies for EoE and barzolvolimab's potential as a mast cell depleting agent, we believe EoE is an important indication for future study.

We continue to assess potential opportunities for barzolvolimab in other diseases where mast cells play an important role, such as dermatologic, respiratory, allergic, gastrointestinal and ophthalmic conditions.

Bispecific Platform

Our next generation bispecific antibody platform is supporting the expansion of our pipeline with additional candidates for inflammatory diseases and oncology. Targets are being selected based on new science as well as their compatibility to be used in bispecific antibody formats with our existing antibody programs. Development is focused on emerging, important pathways controlling inflammatory diseases or immunity to tumors.

CDX-585

CDX-585 combines our proprietary highly active PD-1 blockade and anti-ILT4 blockade to block immunosuppressive signals in T cells and myeloid cells. ILT4 is emerging as an important immune checkpoint on myeloid cells. CDX-585 is currently completing CMC and IND-enabling activities and is expected to enter the clinic in 2023.

CDX-527

CDX-527 uses our proprietary highly active anti-PD-L1 and CD27 human antibodies to couple CD27 co-stimulation with blockade of the PD-L1/PD-1 pathway to help prime and activate anti-tumor T cell responses through CD27 costimulation, while preventing PD-1 inhibitory signals that subvert the immune response. Our prior clinical experience with combining CD27 activation and PD-1 blockade provide the rationale for linking these two pathways into one molecule and preclinical data demonstrated that CDX-527 is more potent at T cell activation and anti-tumor immunity than the combination of parental monoclonal antibodies.

In August 2020, we announced the initiation of a Phase 1 dose-escalation study. The study was designed to include up to 40 patients with advanced or metastatic solid tumors that had progressed during or after standard of care therapy to be followed by tumor-specific expansion cohorts. The study included a dose-escalation phase to determine a maximum tolerated dose, or MTD, and to recommend a dose level for further study in a subsequent expansion phase. The expansion was designed to further evaluate the tolerability, and biologic and anti-tumor effects of selected dose level(s) of CDX-527 in specific tumor types. Enrollment to the dose escalation portion (n=18) of the study was completed with no dose-limiting toxicities or treatment related serious adverse events observed and CDX-527 demonstrated promising pharmacodynamic and pharmacokinetic activity, which are important key hurdles for the development of bispecific antibodies. An expansion cohort in ovarian cancer was initiated.

In November 2022, we provided an update on the study. The standard of care in ovarian cancer continues to evolve, making drug development in this indication more challenging. With multiple clinical trials actively recruiting in ovarian cancer, enrollment to the expansion cohort in patients with checkpoint naïve ovarian cancer (n=8) did not meet our internal timelines and a review of the results to date also did not meet internal hurdles for proceeding. Given the evolving environment and our pipeline and resource priorities, we have decided that the study will be closed and the program discontinued.

Other programs:

CDX-1140

CDX-1140 is a fully human agonist monoclonal antibody targeted to CD40, a key activator of immune response, which is found on dendritic cells, macrophages and B cells and is also expressed on many cancer cells. CDX-1140 has unique properties relative to other CD40 agonist antibodies: potent agonist activity is independent of Fc receptor interaction, contributing to more consistent, controlled immune activation; CD40L binding is not blocked, leading to potential synergistic effects of agonist activity near activated T cells in lymph nodes and tumors; and the antibody does not promote cytokine production in whole blood assays.

A Phase 1 study was conducted in patients with recurrent, locally advanced or metastatic solid tumors and B cell lymphomas. An MTD, of 1.5 mg/kg was established and clinical activity was observed both as a monotherapy and in combination with pembrolizumab. Despite evidence of clinical benefit, questions remain to be answered about CDX-1140, and the broader CD40 agonist class, regarding the best clinical settings, regimens, and possible combinations before advancing into additional Celldex-sponsored studies. Given our pipeline priorities and resource requirements, we are not progressing further Company-sponsored studies at this time and are exploring these questions in third-party sponsored studies.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

See Note 2 to the unaudited condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for information regarding newly adopted and recent accounting pronouncements. See also Note 2 to our financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2021 for a discussion of our critical accounting policies and estimates. There have been no material changes to such critical accounting policies or estimates. We believe our most critical accounting policies include accounting for contingent consideration, revenue recognition, intangible and long-lived assets, research and development expenses and stock-based compensation expense.

RESULTS OF OPERATIONS

Three Months Ended September 30, 2022 Compared with Three Months Ended September 30, 2021

	Three Months Ended September 30,		Increase/ (Decrease)	Increase/ (Decrease)
	2022	2021	$	%
	(In thousands)			
Revenues:				
Product development and licensing agreements	$ —	$ —	$ —	n/a
Contracts and grants	407	153	254	166 %
Total revenues	$ 407	$ 153	$ 254	166 %
Operating expenses:				
Research and development	21,572	13,557	8,015	59 %
General and administrative	6,531	5,821	710	12 %
Intangible asset impairment	—	3,500	(3,500)	(100)%
Gain on fair value remeasurement of contingent consideration	—	(1,901)	(1,901)	(100)%
Total operating expenses	28,103	20,977	7,126	34 %
Operating loss	(27,696)	(20,824)	6,872	33 %
Investment and other income, net	912	145	767	529 %
Net loss before income tax benefit	(26,784)	(20,679)	6,105	30 %
Income tax benefit	—	227	(227)	(100)%
Net loss	$ (26,784)	$ (20,452)	$ 6,332	31 %

Net Loss

The $6.3 million increase in net loss for the three months ended September 30, 2022, as compared to the three months ended September 30, 2021, was primarily due to an increase in research and development expense, partially offset by a decrease in non-cash intangible asset impairment expense.

Revenue

Revenue from product development and licensing agreements for the three months ended September 30, 2022 was consistent with the three months ended September 30, 2021. The $0.3 million increase in contracts and grants revenue for the three months ended September 30, 2022, as compared to the three months ended September 30, 2021, was primarily due to an increase in revenue from the Company's SBIR grant. We expect revenue to increase over the next twelve months as a result of an increase in services expected to be performed under our contract manufacturing and research and development agreement with Rockefeller University.

Research and Development Expense

Research and development expenses consist primarily of (i) personnel expenses, (ii) laboratory supply expenses relating to the development of our technology, (iii) facility expenses and (iv) product development expenses associated with our drug candidates as follows:

	Three Months Ended September 30,		Increase/ (Decrease)	
	2022	2021	$	%
	(In thousands)			
Personnel	$ 8,610	$ 7,155	$ 1,455	20 %
Laboratory supplies	1,075	1,255	(180)	(14)%
Facility	1,088	1,148	(60)	(5)%
Product development	9,271	3,101	6,170	199 %

Personnel expenses primarily include salary, benefits, stock-based compensation and payroll taxes. The $1.5 million increase in personnel expenses for the three months ended September 30, 2022, as compared to the three months ended September 30, 2021, was primarily due to higher stock-based compensation expense and an increase in employee headcount. We expect personnel expenses to increase over the next twelve months as a result of additional headcount to support the expanded development of barzolvolimab.

Laboratory supplies expenses include laboratory materials and supplies, services, and other related expenses incurred in the development of our technology. The $0.2 million decrease in laboratory supply expenses for the three months ended September 30, 2022, as compared to the three months ended September 30, 2021, was primarily due to lower laboratory materials and supplies purchases. We expect laboratory supplies expenses to remain relatively consistent over the next twelve months, although there may be fluctuations on a quarterly basis.

Facility expenses include depreciation, amortization, utilities, rent, maintenance and other related expenses incurred at our facilities. Facility expenses for the three months ended September 30, 2022 was relatively consistent with the three months ended September 30, 2021. We expect facility expenses to remain relatively consistent over the next twelve months, although there may be fluctuations on a quarterly basis.

Product development expenses include clinical investigator site fees, external trial monitoring costs, data accumulation costs, contracted research and outside clinical drug product manufacturing. The $6.2 million increase in product development expenses for the three months ended September 30, 2022, as compared to the three months ended September 30, 2021, was primarily due to an increase in barzolvolimab clinical trial and contract manufacturing expenses. We expect product development expenses to increase over the next twelve months as a result of further increases in barzolvolimab clinical trial, contract manufacturing and contract research expenses.

General and Administrative Expense

The $0.7 million increase in general and administrative expenses for the three months ended September 30, 2022, as compared to the three months ended September 30, 2021, was primarily due to higher stock-based compensation and barzolvolimab commercial planning expenses, partially offset by a decrease in legal expenses. We expect general and administrative expenses to remain relatively consistent over the next twelve months, although there may be fluctuations on a quarterly basis.

Intangible Asset Impairment

During the third quarter of 2021, we evaluated the TAM program IPR&D asset for potential impairment as a result of a lack of interest in the program from third parties. We concluded that the TAM program IPR&D asset was fully impaired, and a non-cash impairment charge of $3.5 million was recorded in the third quarter of 2021.

(Gain) Loss on Fair Value Remeasurement of Contingent Consideration

The $1.9 million gain on fair value remeasurement of contingent consideration for the three months ended September 30, 2021 was primarily due to updated assumptions for the TAM program.

Investment and Other Income, Net

The $0.8 million increase in investment and other income, net for the three months ended September 30, 2022, as compared to the three months ended September 30, 2021, was primarily due to higher interest rates on fixed income investments. We expect investment and other income to increase over the next twelve months primarily due to higher interest rates and higher other income related to our sale of New Jersey tax benefits.

Income Tax Benefit

A $0.2 million non-cash income tax benefit was recorded related to the impairment of the TAM program IPR&D asset in the third quarter of 2021.

Nine Months Ended September 30, 2022 Compared with Nine Months Ended September 30, 2021

	Nine Months Ended September 30,		Increase/ (Decrease)	Increase/ (Decrease)
	2022	2021	$	%
	(In thousands)			
Revenues:				
Product development and licensing agreements	$ 30	$ 29	$ 1	3 %
Contracts and grants	714	4,288	(3,574)	(83)%
Total revenues	$ 744	$ 4,317	$ (3,573)	(83)%
Operating expenses:				
Research and development	59,359	38,633	20,726	54 %
General and administrative	20,596	14,247	6,349	45 %
Intangible asset impairment	—	3,500	(3,500)	(100)%
Gain on fair value remeasurement of contingent consideration	(6,862)	(1,160)	5,702	492 %
Litigation settlement related loss	15,000	—	15,000	n/a
Total operating expenses	88,093	55,220	32,873	60 %
Operating loss	(87,349)	(50,903)	36,446	72 %
Investment and other income, net	1,511	313	1,198	383 %
Net loss before income tax benefit	(85,838)	(50,590)	35,248	70 %
Income tax benefit	—	227	(227)	(100)%
Net loss	$ (85,838)	$ (50,363)	$ 35,475	70 %

Net Loss

The $35.5 million increase in net loss for the nine months ended September 30, 2022, as compared to the nine months ended September 30, 2021, was primarily due to the $15.0 million litigation settlement related loss recorded in the second quarter of 2022 and increases in research and development and general and administrative expenses, partially offset by an increase in the gain on fair value remeasurement of contingent consideration.

Revenue

Revenue from product development and licensing agreements for the nine months ended September 30, 2022, was relatively consistent with the nine months ended September 30, 2021. The $3.6 million decrease in contracts and grants revenue for the nine months ended September 30, 2022, as compared to the nine months ended September 30, 2021, was primarily related to a decrease in services performed under our manufacturing and research and development agreements with Rockefeller University and Gilead Sciences.

Research and Development Expense

Research and development expenses consist primarily of (i) personnel expenses, (ii) laboratory supply expenses relating to the development of our technology, (iii) facility expenses and (iv) product development expenses associated with our drug candidates as follows:

	Nine Months Ended September 30,		Increase/ (Decrease)	
	2022	2021	$	%
	(In thousands)			
Personnel	$ 24,116	$ 19,037	$ 5,079	27 %
Laboratory supplies	4,821	4,370	451	10 %
Facility	3,566	3,601	(35)	(1)%
Product development	22,374	8,835	13,539	153 %

Personnel expenses primarily include salary, benefits, stock-based compensation and payroll taxes. The $5.1 million increase in personnel expenses for the nine months ended September 30, 2022, as compared to the nine months ended September 30, 2021, was primarily due to higher stock-based compensation expense and an increase in employee headcount.

Laboratory supplies expenses include laboratory materials and supplies, services, and other related expenses incurred in the development of our technology. The $0.5 million increase in laboratory supply expenses for the nine months ended September 30, 2022, as compared to the nine months ended September 30, 2021, was primarily due to higher laboratory materials and supplies purchases.

Facility expenses include depreciation, amortization, utilities, rent, maintenance and other related expenses incurred at our facilities. Facility expenses for the nine months ended September 30, 2022 was relatively consistent with the nine months ended September 30, 2021.

Product development expenses include clinical investigator site fees, external trial monitoring costs, data accumulation costs, contracted research and outside clinical drug product manufacturing. The $13.5 million increase in product development expenses for the nine months ended September 30, 2022, as compared to the nine months ended September 30, 2021, was primarily due to an increase in barzolvolimab clinical trial and contract manufacturing expenses.

General and Administrative Expense

The $6.3 million increase in general and administrative expenses for the nine months ended September 30, 2022, as compared to the nine months ended September 30, 2021, was primarily due to higher stock-based compensation, legal and barzolvolimab commercial planning expenses.

Intangible Asset Impairment

During the third quarter of 2021, we evaluated the TAM program IPR&D asset for potential impairment as a result of a lack of interest in the program from third parties. We concluded that the TAM program IPR&D asset was fully impaired, and a non-cash impairment charge of $3.5 million was recorded in the third quarter of 2021.

(Gain) Loss on Fair Value Remeasurement of Contingent Consideration

The $6.9 million gain on fair value remeasurement of contingent consideration for the nine months ended September 30, 2022 was primarily due to our decision to deprioritize the CDX-1140 program. The $1.2 million gain on fair value remeasurement of contingent consideration for the nine months ended September 30, 2021 was primarily due to updated assumptions for the TAM program, changes in discount rates and the passage of time.

Litigation Settlement Related Loss

We recorded a loss of $15.0 million in the second quarter of 2022 related to the Initial Payment due under the binding settlement term sheet (the “Term Sheet”) entered with SRS.

Investment and Other Income, Net

The $1.2 million increase in investment and other income, net for the nine months ended September 30, 2022, as compared to the nine months ended September 30, 2021, was primarily due to higher interest rates on fixed income investments.

Income Tax Benefit

A $0.2 million non-cash income tax benefit was recorded related to the impairment of the TAM program IPR&D asset in the third quarter of 2021.

LIQUIDITY AND CAPITAL RESOURCES

Our cash equivalents are highly liquid investments with a maturity of three months or less at the date of purchase and consist primarily of investments in money market mutual funds with commercial banks and financial institutions. We maintain cash balances with financial institutions in excess of insured limits. We do not anticipate any losses with respect to such cash balances. We invest our excess cash balances in marketable securities, including municipal bond securities, U.S. government agency securities and high-grade corporate bonds that meet high credit quality standards, as specified in our investment policy. Our investment policy seeks to manage these assets to achieve our goals of preserving principal and maintaining adequate liquidity.

The use of our cash flows for operations has primarily consisted of salaries and wages for our employees; facility and facility-related costs for our offices, laboratories and manufacturing facility; fees paid in connection with preclinical studies, clinical studies, contract manufacturing, laboratory supplies and services; and consulting, legal and other professional fees. We anticipate that our cash flows from operations will continue to be focused in these areas as we progress our current drug candidates through the clinical trial process and develop additional drug candidates. To date, the primary sources of cash flows from operations have been payments received from our collaborative partners and from government entities and payments received for contract manufacturing and research and development services provided by us. The timing of any new contract manufacturing and research and development agreements, collaboration agreements, government contracts or grants and any payments under these agreements, contracts or grants cannot be easily predicted and may vary significantly from quarter to quarter.

At September 30, 2022, our principal sources of liquidity consisted of cash, cash equivalents and marketable securities of $323.5 million. We have had recurring losses and incurred a loss of $85.8 million for the nine months ended September 30, 2022. Net cash used in operations for the nine months ended September 30, 2022 was $82.0 million. We believe that the cash, cash equivalents and marketable securities at September 30, 2022 are sufficient to meet estimated working capital requirements and fund planned operations through 2025. This could be impacted if we elect to pay the future milestones under the Settlement Agreement with SRS, if any, in cash.

During the next twelve months, we may take further steps to raise additional capital to meet our long-term liquidity needs including, but not limited to, one or more of the following: the licensing of drug candidates with existing or new collaborative partners, possible business combinations, issuance of debt, or the issuance of common stock or other securities via private placements or public offerings. Although we have been successful in raising capital in the past, there can be no assurance that additional financing will be available on acceptable terms, if at all, and our negotiating position in capital raising efforts may worsen as existing resources are used. There is also no assurance that we will be able to enter into further collaborative relationships. Additional equity financings may be dilutive to our stockholders; debt financing, if available, may involve significant cash payment obligations and covenants that restrict our ability to operate as a business; and licensing or strategic collaborations may result in royalties or other terms which reduce our economic potential from products under development. Our ability to continue funding our planned operations into and beyond twelve months from the issuance date is also dependent on the timing and manner of payment of the future milestones under the Settlement Agreement with SRS, in the event that we achieve the milestones related to those payments. We may decide to pay those milestone payments in cash, shares of our common stock or a combination thereof. If we are unable to raise the funds necessary to meet our long-term liquidity needs, we may have to delay or discontinue the development of one or more programs, discontinue or delay ongoing or anticipated clinical trials, license out programs earlier than expected, raise funds at a significant discount or on other unfavorable terms, if at all, or sell all or a part of our business.

Operating Activities

Net cash used in operating activities was $82.0 million for the nine months ended September 30, 2022 as compared to $46.4 million for the nine months ended September 30, 2021. The increase in net cash used in operating activities was primarily due to an increase in research and development and general and administrative expenses and the $15.0 million Initial Payment made to SRS under the Settlement Agreement. We expect that cash used in operating activities (not including the $15.0 million Initial Payment made to SRS) will increase over the next twelve months as a result of the expanded development of barzolvolimab.

We have incurred and will continue to incur significant costs in the area of research and development, including preclinical and clinical trials and clinical drug product manufacturing as our drug candidates are developed. We plan to spend significant amounts to progress our current drug candidates through the clinical trial process as well as to develop additional drug candidates. As our drug candidates progress through the clinical trial process, we may be obligated to make significant milestone payments, pursuant to our existing arrangements and arrangements we may enter in the future.

Investing Activities

Net cash provided by investing activities was $58.7 million for the nine months ended September 30, 2022 as compared to net cash used in investing activities of $197.2 million for the nine months ended September 30, 2021. The increase in net cash provided by investing activities was primarily due to net sales and maturities of marketable securities of $60.3 million for the nine months ended September 30, 2022 as compared to net purchases of $196.3 million for the nine months ended September 30, 2021.

Financing Activities

Net cash provided by financing activities was $2.7 million for the nine months ended September 30, 2022 as compared to $271.9 million for the nine months ended September 30, 2021. The decrease in net cash provided by financing activities was primarily due to a decrease in net proceeds from stock issuances. During the third quarter of 2021, we issued 6,845,238 shares of common stock in an underwritten public offering resulting in net proceeds of $269.9 million, after deducting underwriting fees and offering expenses.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

We own financial instruments that are sensitive to market risk as part of our investment portfolio. Our investment portfolio is used to preserve our capital until it is used to fund operations, including our research and development activities. None of these market-risk sensitive instruments are held for trading purposes. We invest our cash primarily in money market mutual funds. These investments are evaluated quarterly to determine the fair value of the portfolio. From time to time, we invest our excess cash balances in marketable securities including municipal bond securities, U.S. government agency securities and high-grade corporate bonds that meet high credit quality standards, as specified in our investment policy. Our investment policy seeks to manage these assets to achieve our goals of preserving principal and maintaining adequate liquidity. Because of the short-term nature of these investments, we do not believe we have material exposure due to market risk. The impact to our financial position and results of operations from likely changes in interest rates is not material.

We do not utilize derivative financial instruments. The carrying amounts reflected in the consolidated balance sheet of cash and cash equivalents, accounts receivables and accounts payable approximate fair value at September 30, 2022 due to the short-term maturities of these instruments.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures.

As of September 30, 2022, we evaluated, with the participation of our Chief Executive Officer and Chief Financial Officer, the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”)). Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of September 30, 2022. Our disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within time periods specified by the SEC’s rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting.

There were no changes in our internal control over financial reporting during the quarter ended September 30, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1A. Risk Factors

In addition to the other information set forth in this report, you should carefully consider the factors discussed in Part I, "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2021, which could materially affect our business, financial condition or future results. The risks described in our Annual Report on Form 10-K may not be the only risks facing us. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition and/or operating results.

There were no material changes to the risk factors previously disclosed in our Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 28, 2022.

Item 5. Other Information

On November 3, 2022, our Board of Directors, upon the recommendation of the Board's Nominating and Corporate Governance Committee, voted to amend and restate our Amended and Restated By-Laws, as amended (the "Old Bylaws") and approve the Second Amended and Restated By-Laws of Celldex Therapeutics, Inc. (the "New Bylaws), effective immediately. The New Bylaws include the following amendments:

- Generally provide that for all matters (other than the election of directors, which is governed by a standard contained in a separate section of the New Bylaws and is unchanged from the standard in the Old Bylaws, and those where a different vote is required by applicable law, the Company's Certificate of Incorporation, the New Bylaws or the rules of any stock exchange upon which the Company's securities are listed) shall be determined by a majority of the votes cast on such matter. Prior to effectiveness of the New Bylaws, all matters other than the election of directors, and except as otherwise required by law, were authorized by the affirmative vote of the majority of the voting power of the shares present at the meeting and entitled to vote on the subject matter;

- Amend the existing advance notice bylaw provisions by adopting certain technical and administrative clarifications and by supplementing additional stockholder proponent requirements, which, among other changes, now require: (i) disclosure of derivative ownership by the stockholder and the underlying beneficial owners, (ii) stockholders (including, if the stockholder is an entity, the control persons of that entity) to include a representation as to whether the stockholder intends to solicit proxies from other stockholders, (iii) disclosure of any significant equity interest held by the stockholder in any principal competitor of the Company, (iv) attendance by either the stockholder or a qualified representative to appear at the meeting, and (v) when a stockholder has submitted a nominee to stand for election to the Board of Directors, (a) a representation that the director nominee currently intends to serve for a full term if elected, (b) submission of a completed questionnaire by the director nominee (which form shall be provided by the Company), (c) a representation from the director nominee that they are not and will not become a party to any agreement, arrangement or understanding as to how he or she will vote if elected or relating to compensation for service as a director or nominee (in each case, that has not been disclosed to the Company) or that would limit or interfere with such person's ability to comply with his or her fiduciary duties and (d) a representation from the director nominee that he or she agrees to comply with all of the Company's policies and guidelines applicable to directors of the Company;

- In cases where the "universal proxy" rules apply, the New Bylaws include a provision that disqualifies a director nominee if the stockholder proponent fails to comply with such rules;

- For stockholder proposals submitted in compliance with Rule 14a-8 of the Exchange Act of 1934, as amended, the New Bylaws require attendance at the meeting by either the stockholder proponent or a qualified representative;

- Provide that the Board of Directors, the President, the Chair of the Board or the chair of the meeting may adjourn any meeting of stockholders for any reason, whether or not a quorum is present;

- Empowers the chair of the meeting to set the rules of procedure for the meeting and make administrative decisions thereat, including, among others, requirements related to attendance and procedures related to questions and answers at the meeting;

- Designates, unless otherwise selected or consented to by the Company, the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have, or declines to accept, jurisdiction, another state court or a federal court located within the State of Delaware) as the sole and exclusive forum for any complaint asserting any internal corporate claims. Such claims include claims in the right of the Company that are based upon a violation of a duty by a current or former director, officer, employee or stockholder in such capacity, or as to which the Delaware General Corporation Law (the "DGCL") confers jurisdiction upon the Court of Chancery;

- Designates, unless otherwise selected or consented to by the Company, the federal district courts of the United States of America as the sole and exclusive forum for any complaint asserting a cause of action arising under the Securities Act of 1933, as amended;

- Amend the Company's indemnification bylaw to clarify that (i) indemnification will not be provided to employees and agents of the Company, other than directors and officers as described in the New By-Laws and (ii) the Company will not be required to provide indemnification for any individual in connection with any action initiated by such individual unless such initiation was approved by the Board of Directors or the initiation was in connection with successfully establishing the individual's right to indemnification or advancement of expenses;

- Add provisions that, for the duration of an emergency as contemplated by Section 110 of the DGCL, grant flexibility for the Company and the Board of Directors to act during times where normal Board procedures would be impractical, as expressly authorized by the DGCL;

- Adds a bylaw specifying that, unless otherwise directed by the Board of Directors, the President or any officer of the Company authorized by the President, has the power to vote and act on behalf of the Company with respect to any other entity in which the Company may hold securities;

- Includes a provision which provides, among other things, greater flexibility with respect to the authority of committees of the Board in accordance with the DGCL; and

- Make certain administrative, modernizing, clarifying and confirming changes.

The foregoing summary does not purport to be complete and is qualified in its entirety by reference to the Second Amended and Restated By-Laws of Celldex Therapeutics, Inc., filed as Exhibit 3.1 to this Quarterly Report on Form 10-Q and incorporated by reference herein.

Item 6. Exhibits

The exhibits filed as part of this quarterly report on Form 10-Q are listed in the exhibit index included herewith and are incorporated by reference herein.

EXHIBIT INDEX

Exhibit No.	Description
**3.1	Second Amended and Restated By-Laws of Celldex Therapeutics, Inc., dated November 3, 2022
**10.1	Amended and Restated License Agreement by and between the Company and Yale University dated as of July 26, 2022*
**10.2	Tenth Amendment to Lease by and between the Company and University of Massachusetts Dartmouth dated as of August 1, 2022
**31.1	Certification of President and Chief Executive Officer
**31.2	Certification of Senior Vice President and Chief Financial Officer
***32.1	Section 1350 Certifications
**101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
**101.SCH	Inline XBRL Taxonomy Extension Schema Document.
**101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
**101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.
**101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.
**101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibits 101).

* Certain confidential portions of this exhibit were redacted. Celldex Therapeutics, Inc. agrees to furnish supplementally to the U.S. Securities and Exchange Commission a copy of any omitted schedule and/or exhibit upon request. The confidential portions of this exhibit were omitted by means of marking such portions with asterisks because the identified confidential portions (i) are not material, (ii) would be competitively harmful if publicly disclosed and (iii) contain information that Celldex Therapeutics, Inc, customarily and actually treats as private or confidential.

** Filed herewith.

*** Furnished herewith.

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.

CELLDEX THERAPEUTICS, INC.

BY:

/s/ ANTHONY S. MARUCCI

Dated: November 9, 2022

Anthony S. Marucci
President and Chief Executive Officer
(Principal Executive Officer)

/s/ SAM MARTIN

Dated: November 9, 2022

Sam Martin
Senior Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 3.1

SECOND AMENDED AND RESTATED
BY-LAWS
OF
CELLDEX THERAPEUTICS, INC.

as of November 3, 2022

ARTICLE I
OFFICES

SECTION 1. REGISTERED OFFICE. The registered office of the Corporation shall be fixed in the Third Restated Certificate of Incorporation of the Corporation (as amended and/or restated from time to time, the "Certificate of Incorporation").

SECTION 2. OTHER OFFICES. The Corporation may have other offices, either within or without the State of Delaware, at such place or places as the Corporation may from time to time determine or the business of the Corporation may require.

ARTICLE II
MEETINGS OF STOCKHOLDERS

SECTION 1. ANNUAL MEETINGS. Annual meetings of stockholders, for the election of directors to succeed those whose terms expire and for such other business as may be stated in the notice of the meeting, shall be held at such place either within or without the State of Delaware (if any), and at such time and date as the Board of Directors (or its designee) shall determine and set forth in the notice of meeting. At each annual meeting, the stockholders entitled to vote shall elect a Board of Directors and they may transact such other corporate business as shall be stated in the notice of the meeting.

SECTION 2. NOTICE OF STOCKHOLDER BUSINESS AND NOMINATIONS.

(A) Annual Meetings of Stockholders.

(1) Nominations of persons for election to the Board of Directors and the proposal of other business to be considered by the stockholders may be made at an annual meeting of stockholders only (a) pursuant to the Corporation's notice of meeting (or any amendment or supplement thereto) delivered pursuant to Section 7 of Article II, (b) by or at the direction of the Board of Directors or any authorized committee thereof, (c) by any stockholder of the Corporation who is entitled to vote at the meeting, who complied with all of the notice procedures set forth in this Section 2 of Article II and who was a stockholder of record at the time such notice is delivered to the Secretary of the Corporation (the "Secretary"), or (d) by an Eligible Stockholder (as defined in Section 2 of Article III) that complies with the requirements of Section 2 of Article III. For the avoidance of doubt, the foregoing clauses (c) and (d) shall be the exclusive means for a stockholder to bring nominations or business (other than business included in the Corporation's proxy materials pursuant to Rule 14a-8 promulgated under the Exchange Act) at an annual meeting of stockholders.

(2) For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (c) of paragraph (A)(1) of this Section 2 of Article II, the stockholder must have given timely notice thereof in proper written form to the Secretary at the principal executive offices of the Corporation and provided any updates to such notice and additional information at the time and in the form required by Section 2(A)(8) or by Section 2(A)(9) of Article II, and, in the case of business other than nominations of persons for election to the Board of Directors, such other business must constitute a proper matter for stockholder action under Delaware law. To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the Corporation not less than seventy five (75) days nor more than one hundred and twenty (120) days prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is advanced by more than thirty (30) days, or delayed by more than sixty (60) days, from the anniversary date of the previous year's meeting, or if no annual meeting was held in the preceding year, notice by the stockholder to be timely must be so delivered not later than the later of the seventy-fifth (75th) day prior to

such annual meeting or the fifteenth (15th) day following the day on which public announcement of the date of such meeting is first made by the Corporation. Neither the adjournment of an annual meeting, nor the postponement or rescheduling of an annual meeting for which notice of the meeting has already been given to stockholders or a public announcement of the meeting date has already been made, shall commence a new time period (or extend any time period) for the giving of a stockholder's notice. Notwithstanding anything in this Section 2(A)(2) of this Article II to the contrary, if the number of directors to be elected to the Board of Directors at an annual meeting is increased and there is no public announcement by the Corporation naming all of the nominees for director or specifying the size of the increased Board of Directors at least ten (10) days prior to the last day a stockholder may deliver a notice in accordance with the preceding provisions of this paragraph, then a stockholder's notice required by this Section 2(A)(2) of this Article II shall be considered timely, but only with respect to nominees for any new positions created by such increase, if it is received by the Secretary not later than the tenth (10th) calendar day following the day on which such public announcement is first made by the Corporation. To be considered timely, any stockholder notices or other information required to be delivered or submitted pursuant to this Section 2 of Article II must be received by the Corporation before the close of business of the designated day at the principal executive offices of the Corporation by delivery to its principal executive offices.

(3) If the stockholder proposes to nominate one or more persons for election or re-election as directors, the stockholder's notice shall set forth the names of such stockholder's nominees. The number of nominees a stockholder may set forth in such notice for nomination for election or re-election at an annual meeting (or in the case of a stockholder giving notice on behalf of a beneficial owner, the number of nominees a stockholder may nominate for election at the annual meeting on behalf of the beneficial owner) shall not exceed the number of directors to be elected at such annual meeting. If the stockholder proposes to bring other business before an annual meeting, the stockholder's notice shall include (a) a brief description of the business desired to be brought before the meeting; (b) the text of the proposal or business (including the text of any resolutions proposed for consideration and, in the event that such business includes a proposal to amend these Bylaws, the language of the proposed amendment); (c) the reasons for conducting such business at the meeting; and (d) any material interest (including a substantial interest, within the meaning of Item 5 of Schedule 14A under the Exchange Act) in such business of such stockholder and the beneficial owner, if any, on whose behalf the business or proposal is made.

(4) The stockholder's notice required by this Section 2 of Article II shall include the following information about the stockholder giving the notice and each beneficial owner, if any, on whose behalf the stockholder is making the nomination(s) or business or proposal(s), and any affiliate who controls either of the foregoing directly or indirectly (a "control person"): (a) each such person's name and address (including, in the case of the stockholder, the name and address that appears on the Corporation's books and records); (b) the class or series and number of shares of capital stock of the Corporation that are respectively owned, (directly or indirectly, beneficially or of record) by each such person (including any class or series of shares of the Corporation to which such person has a right to acquire beneficial ownership at any time in the future); and (c) any other information relating to each such person required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or for the election of directors in an election contest pursuant to and in accordance with Section 14(a) of the Exchange Act.

(5) The stockholder's notice required by this Section 2 of Article II shall include as to each person whom the stockholder proposes to nominate for election or re-election as a director: (a) all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest (even if an election contest is not involved), or is otherwise required, in each case pursuant to Section 14(a) of the Exchange Act; (b) a written representation and agreement, which shall be signed by such person and pursuant to which such person shall represent and agree that such person: (A) consents to serving as a director if elected and to being named in the Corporation's proxy materials and form of proxy as a nominee (with the Corporation determining in its discretion whether to include such nominee in its proxy materials), and currently intends to serve as a director for the full term for which such person is standing for election; (B) is not and will not become a party to any agreement, arrangement or understanding with, and has not given any commitment or assurance to, any person or entity: (1) as to how the person, if elected as a director, will act or vote on any issue or question that has not been disclosed to the Corporation; or (2) that could limit or interfere with the person's ability to comply, if elected, with such person's fiduciary duties under applicable law; (C) is not and will not become a party to any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director or

nominee that has not been disclosed to the Corporation; and (D) if elected as a director, will comply with all of the Corporation's corporate governance, conflict of interest, confidentiality and stock ownership and trading policies and guidelines, and any other Corporation policies and guidelines applicable to directors (which will be promptly provided following a request therefor); and (c) all completed and signed questionnaires provided by the Corporation (the "Questionnaires"). The Questionnaires will be provided by the Corporation within ten (10) days following a request therefor by a stockholder seeking to nominate nominees.

(6) The stockholder's notice required by this Section 2 of Article II shall include: (a) a description of any agreement, arrangement, understanding or relationship (including the identity of all the parties thereto) with respect to the nomination or proposal and/or the voting of shares of any class or series of stock of the Corporation to which any of the following is a party, or pursuant to which any of the following has a right to vote any shares of any class or series of stock of the Corporation: (i) the stockholder giving the notice; (ii) the beneficial owner, if any, on whose behalf the nomination or proposal is made, (iii) any of the stockholder's nominees for director; (v) the respective affiliates or associates of any of the foregoing; and (vi) any persons acting in concert with any of the foregoing (each person contemplated by the foregoing clauses (i)-(vi) collectively, "proponent persons"); and (b) a description of any agreement, arrangement or understanding (including, regardless of the form of settlement, any derivative, long or short positions, profit interests, any contract to purchase or sell, the acquisition or grant of any option, right or warrant to purchase or sell or any swap or other instrument) to which any proponent person is a party, the intent or effect of which may be (i) to transfer to or from any proponent person, in whole or in part, any of the economic consequences of ownership of any security of the Corporation, (ii) to increase or decrease the voting power of any proponent person with respect to shares of any class or series of stock of the Corporation and/or (iii) to provide any proponent person, directly or indirectly, with the opportunity to hedge, profit or share in any profit derived from, or to otherwise benefit economically from, any increase or decrease in the value of any security of the Corporation; and (c) any significant equity interest held by the proponent persons in any principal competitors of the Corporation, a list of which will be provided by the Corporation within ten (10) days following a request therefor by a stockholder.

(7) The stockholder's notice required by this Section 2 of Article II shall include the following representations, certifications and agreements from each of the stockholder giving the notice, each beneficial owner (if any) on whose behalf the stockholder's nomination or proposal is being made each control person (if any): (a) a representation that the stockholder giving the notice is a holder of record of stock of the Corporation at the timing the notice required by Section 2 of Article II is given; and will be a stockholder of record as of the date of the annual meeting; (b) a representation whether or not a stockholder, beneficial owner or control person(s), if any, will, or will be part of a group that will, (i) deliver a proxy statement and/or form of proxy to holders of at least the percentage of the voting power of the Corporation's outstanding capital stock required to approve or adopt the proposal or, in the case of a nominee, at least 50% of the voting power of the Corporation's outstanding capital stock; (ii) solicit proxies or votes from stockholders pursuant to Rule 14a-19 under the Exchange Act; and/or (iii) otherwise solicit proxies with respect to one or more nominees or business proposals (in each case, specifically identifying each participant in the solicitation as defined under Item 4 of Schedule 14A and the means by which the participants intend to solicit proxies or votes); and (c) a certification regarding whether such stockholder, and beneficial owner and control person, if any, have complied with all applicable federal, state and other legal requirements in connection with the stockholder's, beneficial owner's and/or control person's acquisition of shares of capital stock or other securities of the Corporation and/or the stockholder's, beneficial owner's and/or control person's acts or omissions as a stockholder of the Corporation.

(8) A stockholder providing notice of a proposed nomination or other business proposed to be brought before a meeting (whether given pursuant to this Section 2(A) or Section 2(B) of Article II) shall update and supplement such notice from time to time to the extent necessary so that the information provided or required to be provided in such notice shall be true and correct (x) as of the record date for determining the stockholders entitled to notice of the meeting and (y) as of the date that is fifteen (15) days prior to the meeting or any adjournment or postponement thereof, provided that if the record date for determining the stockholders entitled to vote at the meeting is less than fifteen (15) days prior to the meeting or any adjournment or postponement thereof, the information shall be supplemented and updated as of such later date. Any such update and supplement shall be delivered in proper written form to the Secretary at the principal executive offices of the Corporation not later than five (5) days after the record date for determining the stockholders entitled to notice of the meeting (in the case of any update and supplement required to be made as of the record date for determining the stockholders entitled to notice of the meeting), not later than ten (10) days prior to the date for the meeting or any adjournment or

postponement thereof (in the case of any update or supplement required to be made as of fifteen (15) days prior to the meeting or adjournment or postponement thereof) and not later than five (5) days after the record date for determining the stockholders entitled to vote at the meeting, but no later than the date prior to the meeting or any adjournment or postponement thereof (in the case of any update and supplement required to be made as of a date less than fifteen (15) days prior the date of the meeting or any adjournment or postponement thereof).

(9) At any time before the applicable meeting of stockholders, the Corporation may require (a) any proposed nominee to furnish such other information as it may require to determine the eligibility of such proposed nominee to serve as a director of the Corporation, to assess the background of such nominee and to determine the independence of such nominee under the Exchange Act and rules and regulations thereunder and applicable stock exchange rules and (b) any proposed nominee and any stockholder who has provided a notice of nomination or other business (and any beneficial owner on whose behalf such stockholder is acting and any control person) to provide any information that the Corporation determines is required to determine whether any person has complied with this Section 2 of Article II. Any such information required to be provided pursuant to this paragraph must be provided to the Corporation within five (5) business days of the Corporation's request therefor.

(B) Special Meetings of Stockholders.

Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of meeting (1) by or at the direction of the Board of Directors or any committee thereof or (2) provided that the Board of Directors has determined that directors shall be elected at such meeting, by any stockholder of the Corporation who is entitled to vote at the meeting, who complies with the notice procedures set forth in this Section 2 of Article II and who is a stockholder of record at the time such notice is delivered in proper written form to the Secretary at the principal executive offices of the Corporation. In the event the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder entitled to vote in such election of directors may nominate a person or persons (as the case may be) for election to such position(s) as specified in the Corporation's notice of meeting if the stockholder's notice shall be delivered to the Secretary at the principal executive offices of the Corporation not earlier than the close of business on the 120th day prior to such special meeting and not later than the close of business on the later of the 75th day prior to such special meeting and the 10th day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. The number of nominees a stockholder may nominate for election at the special meeting (or in the case of a stockholder giving the notice on behalf of a beneficial owner, the number of nominees a stockholder may nominate for election at the annual meeting on behalf of such beneficial owner) shall not exceed the number of directors to be elected at such special meeting. In no event shall an adjournment or postponement of a special meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above. Such notice of a stockholder shall include the same information, representations, certifications and agreements that would be required if the stockholder were to make a nomination in connection with an annual meeting of stockholders pursuant to Sections 2(A)(4)-(7) of Article II and such stockholder shall be obligated to provide the same supplemental or additional information in connection with a special meeting of stockholders as required pursuant to Section 2(A)(8)-(9) of Article II in connection with an annual meeting of stockholders.

(C) General.

(1) Subject to Section 2 of Article III, only such persons who are nominated in accordance with the procedures set forth in this Section 2 of Article II shall be eligible to serve as directors and only such business shall be conducted at an annual or special meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section. Without limiting any remedy available to the Corporation, a stockholder may not present nominations for director or business at a meeting of stockholders (and any such nominee shall be disqualified from standing for election or re-election), notwithstanding that proxies in respect of such vote may have been received by the Corporation, if such stockholder, any beneficial owner (as applicable) or any nominee for director (as applicable) acted contrary to any representation, certification or agreement required by this Section 2 of Article II, otherwise failed to comply with this Section (or with any law, rule or regulation identified in this Section 2 of Article II) or provided false or misleading information to the Corporation.

(2) Unless otherwise required by law or as otherwise determined by the chair of the meeting, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual or special meeting of stockholders of the Corporation to present a nomination or business, such nomination shall be disregarded and such proposed business (whether pursuant to the requirements of these By-Laws or in accordance with Rule 14a-8 under the Exchange Act) shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of these By-Laws, to be considered a "qualified representative" of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or must be authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, to the Secretary at the principal executive offices of the Corporation at least five (5) days in advance of the meeting of stockholders.

(3) Except as otherwise provided by law, the Amended and Restated Certificate of Incorporation or these By-Laws, the chair of the meeting shall, in addition to making any other determination that may be appropriate for the conduct of the meeting, have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the procedures set forth in these By-Laws and, if any proposed nomination or business is not in compliance with these By-Laws, to declare that such defective proposal or nomination shall be disregarded, notwithstanding that proxies in respect of such vote may have been received by the Corporation.

(4) Whenever used in these By-Laws, (i) "public announcement" shall mean disclosure (a) in a press release released by the Corporation, provided that such press release is released by the Corporation following its customary procedures, is reported by the Dow Jones News Service, Associated Press or comparable national news service or is generally available on internet news sites or (b) in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act and the rules and regulations promulgated thereunder, and (ii) the "Exchange Act" shall mean the Securities Exchange Act of 1934, as amended and the rules and regulations promulgated thereunder. For purposes of this Section 2 of Article II and Section 2 of Article III, "close of business" shall mean 5:00 p.m. local time in the principal executive offices of the Corporation on any calendar day, whether or not the day is a business day.

(5) Nothing in this Section 2 of Article II shall be deemed to affect any rights (a) of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to applicable rules and regulations promulgated under the Exchange Act (including, without limitation, Rule 14a-8 of the Exchange Act) or (b) of the holders of any series of preferred stock to elect directors pursuant to any applicable provisions of the Certificate of Incorporation.

(6) A stockholder (and beneficial owner and control person, as applicable) shall also comply with all applicable requirements of the Exchange Act (including Rule 14a-19, if applicable) with respect to the matters set forth in this Section 2 of Article II.

SECTION 3. DELIVERY TO THE CORPORATION. Whenever this Article II (or Section 2 of Article III of these By-Laws) requires one or more persons (including a record or beneficial owner of stock) to deliver a document or information to the Corporation or any officer, employee or agent thereof (including any notice, request, questionnaire, revocation, representation or other document or agreement), the Corporation shall not be required to accept delivery of such document or information unless the document or information is in writing exclusively (and not in an electronic transmission) and delivered exclusively by hand (including, without limitation, overnight courier service) or by certified or registered mail, return receipt requested.

SECTION 4. VOTING AND PROXIES. Stockholders shall have one vote for each share of stock entitled to vote owned by them of record according to the stock transfer books of the Corporation, unless otherwise provided by law or by the Certificate of Incorporation (including any certificate of designations relating to any series of Preferred Stock (each hereinafter referred to as a "Preferred Stock Designation")). Every stockholder entitled to vote for directors, or on any other matter, shall have the right to do so either in person or by one or more persons authorized to act for such stockholder by proxy. No proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. Any copy, facsimile telecommunication or other reliable reproduction of document (including any electronic transmission) created pursuant to §212(c) of the Delaware General Corporation

Law (as amended from time to time, the "DGCL") may be substituted for or used in lieu of the original document for any and all purposes for which the original document could be used, provided that such copy, facsimile telecommunication or other reproduction shall be a complete reproduction of the entire document.

At any meeting of stockholders for the election of one or more directors at which a quorum is present, each director shall be elected by the vote of a majority of the votes cast with respect to the director, provided that if, as of a date that is ten (10) days in advance of the date on which the Corporation files its definitive proxy statement with the Securities and Exchange Commission (regardless of whether thereafter revised or supplemented), the number of nominees for director exceeds the number of directors to be elected, the directors shall be elected by the vote of a plurality of the votes cast by the stockholders entitled to vote at the election. For purposes of this Section 4, a majority of the votes cast means that the number of shares voted "for" a director exceeds the number of votes cast "against" that director. The following shall not be votes cast: (a) a share otherwise present at the meeting but for which there is an abstention; and (b) a share otherwise present at the meeting as to which a shareholder gives no authority or direction. If an incumbent director then serving on the Board of Directors does not receive the required majority, the director shall promptly tender such person's resignation to the Board of Directors. Within ninety (90) days after the date of the certification of the election results, the Nominating and Corporate Governance Committee of the Board of Directors (or other committee that may be designated by the Board of Directors) will make a recommendation to the Board of Directors as to whether to accept or reject the resignation, or whether other action should be taken. The Board of Directors will act on the tendered resignation, taking into account the Nominating and Corporate Governance Committee's recommendation, and publicly disclose its decision regarding the tendered resignation and the rationale behind the decision. The Nominating and Corporate Governance Committee in making its recommendation, and the Board of Directors in making its decision, may each consider any factors or other information that they consider appropriate and relevant. The director who tenders such person's resignation will not participate in the recommendation of the Nominating and Corporate Governance Committee or the decision of the Board of Directors with respect to such person's resignation. If such incumbent director's resignation is not accepted by the Board of Directors, such director shall continue to serve until the next annual meeting and until such person's successor is duly elected, or such person's earlier resignation or removal. If a director's resignation is accepted by the Board of Directors pursuant to this Section 4, or if a nominee for director is not elected and the nominee is not an incumbent director, then the Board of Directors may fill the resulting vacancy pursuant to the provisions of these By-Laws or may decrease the size of the Board of Directors pursuant to these By-Laws.

Except as otherwise required by law, Certificate of Incorporation, these By-Laws, or the rules of any stock exchange upon which the Corporation's securities are listed, all matters other than the election of directors (which shall be governed by the immediately preceding paragraph) shall be determined by a majority of the votes cast affirmatively or negatively.

SECTION 5. QUORUM, ADJOURNMENT AND CONDUCT OF MEETING. Except as otherwise required by law, by the Certificate of Incorporation or by these By-Laws, the presence, in person or by proxy, of stockholders holding a majority of the voting power of the outstanding capital stock of the Corporation entitled to vote at the meeting shall constitute a quorum at all meetings of the stockholders; provided, however, that where a separate vote by a class or series or classes or series of stock is required, the presence in person or by proxy of stockholders holding a majority of the voting power of the stock of such class or series or classes or series outstanding and entitled to vote thereon shall constitute a quorum entitled to take action with respect to such matter.

In case a quorum shall not be present at any meeting, the meeting may be adjourned from time to time by the stockholders, by the affirmative vote of a majority of the votes cast affirmatively or negatively, until the requisite amount of stock entitled to vote shall be present. At any such adjourned meeting at which the requisite amount of stock entitled to vote shall be represented, any business may be transacted which might have been transacted at the meeting as originally called. In addition, any meeting of stockholders, whether or not a quorum is present, may be adjourned or recessed for any reason from time to time by the Board of Directors, the President, the Chair of the Board or the chair of the meeting.

Unless otherwise determined by the Board of Directors, all meetings of stockholders shall be presided over by the Chair of the Board or the President, or if such persons are absent, by another officer designated by the Board of Directors. All meetings of stockholders shall be conducted in accordance with such rules and procedures as the Board of Directors may determine subject to the requirements of applicable law and, as to matters not governed by

such rules and procedures, as the chair of such meeting shall determine. Such rules or procedures, whether adopted by the Board of Directors or prescribed by the chair of such meeting, may include without limitation the following: (a) the establishment of an agenda or order of business for the meeting, (b) rules and procedures for maintaining order at the meeting and the safety of those present, (c) limitations on attendance at or participation in the meeting to stockholders of record of the Corporation, their duly authorized and constituted proxies or such other persons as the chair of the meeting shall determine, (d) restrictions on entry to the meeting after the time fixed for commencement thereof, and (e) limitations on the time, if any, allotted to questions or comments by participants. Unless and to the extent determined by the Board of Directors or the chair of the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

SECTION 6. SPECIAL MEETINGS. Subject to the rights of the holders of any outstanding series of Preferred Stock, special meetings of the stockholders for any purpose or purposes may be called only by the Chair of the Board, President, or Secretary, or by resolution of the directors.

SECTION 7. NOTICE OF MEETINGS. Whenever stockholders are required or permitted to take any action at a meeting, a timely notice in writing or by electronic transmission, in the manner provided in §232 of the DGCL, of the meeting, which shall state the place, if any, date and time of the meeting, the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting, the record date for determining the stockholders entitled to vote at the meeting, if such date is different from the record date for determining stockholders entitled to notice of the meeting, and, in the case of a special meeting, the purposes for which the meeting is called, shall be given by the Secretary to each stockholder of record entitled to vote thereat as of the record date for determining the stockholders entitled to notice of the meeting. Unless otherwise required by law, the Certificate of Incorporation or these By-Laws, the notice of any meeting shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting as of the record date for determining the stockholders entitled to notice of the meeting.

ARTICLE III
DIRECTORS

SECTION 1. NUMBER AND TERM. Except as otherwise provided or fixed pursuant to the Certificate of Incorporation (including any Preferred Stock Designation), the number of directors shall be no less than three but no more than nine, the exact number to be determined from time to time by the Board of Directors pursuant to a resolution adopted by the affirmative vote of a majority of the total number of directors then authorized. The directors shall be elected at the annual meeting of the stockholders and each director shall be elected to serve until such person’s successor shall be elected and shall qualify. Directors need not be stockholders.

SECTION 2. PROXY ACCESS.

(a) **Inclusion of Stockholder Nominee in Proxy Statement.** Subject to the provisions of this Section 2, the Corporation shall include in its proxy statement (including its form of proxy and ballot) for an annual meeting of stockholders the name of any stockholder nominee for election to the Board of Directors submitted pursuant to this Section 2 (each a “Stockholder Nominee”) provided:

(i) timely written notice of such Stockholder Nominee satisfying this Section 2 (“Notice of Proxy Access Nomination”) is delivered to the Corporation by or on behalf of a stockholder or stockholders that, at the time the Notice of Proxy Access Nomination is delivered, satisfy the ownership and other requirements of this Section 2 (such stockholder or stockholders, and any person on whose behalf they are acting, the “Eligible Stockholder”);

(ii) the Eligible Stockholder expressly elects in writing at the time of providing the Notice of Proxy Access Nomination to have its Stockholder Nominee included in the Corporation's proxy statement pursuant to this Section 2; and

(iii) the Eligible Stockholder and the Stockholder Nominee otherwise satisfy the requirements of this Section 2.

(b) **Timely Notice.** To be timely, the Notice of Proxy Access Nomination must be delivered to the Secretary of the Corporation at the principal executive offices of the Corporation, not later than 120 days nor more than 150 days prior to the first anniversary of the date (as stated in the Corporation's proxy materials) that the Corporation's definitive proxy statement was first sent to stockholders in connection with the preceding year's annual meeting of stockholders; *provided, however*, that in the event that the date of the annual meeting is advanced by more than 30 days or delayed by more than 60 days from the anniversary of the preceding year's annual meeting, or if no annual meeting was held in the preceding year, the Notice of Proxy Access Nomination must be so delivered not earlier than the close of business on the 150th day prior to such annual meeting and not later than the close of business on the later of: (i) the 120th day prior to such annual meeting; or (ii) the 10th day following the day on which public announcement of the date of such annual meeting is first made by the Corporation. In no event shall the public announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period) for the giving of the Notice of Proxy Access Nomination.

(c) **Information to be Included in Proxy Statement.** In addition to including the name of the Stockholder Nominee in the Corporation's proxy statement for the annual meeting, the Corporation shall also include (collectively, the "Required Information"):

(i) the information concerning the Stockholder Nominee and the Eligible Stockholder that is required to be disclosed in the Corporation's proxy statement pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act") and the rules and regulations promulgated thereunder; and

(ii) if the Eligible Stockholder so elects, a written statement of the Eligible Stockholder (or in the case of a group, a written statement of the group), not to exceed 500 words, in support of its Stockholder Nominee, which must be provided at the same time as the Notice of Proxy Access Nomination for inclusion in the Corporation's proxy statement for the annual meeting (a "Supporting Statement").

Notwithstanding anything to the contrary contained in this Section 2, the Corporation may omit from its proxy materials any information or Supporting Statement that it, in good faith, believes is untrue in any material respect (or omits a material fact necessary in order to make the statements made, in light of the circumstances under which they are made, not misleading) or would violate any applicable law, rule, regulation, or listing standard. Additionally, nothing in this Section 2 shall limit the Corporation's ability to solicit against and include in its proxy statement its own statements relating to any Stockholder Nominee.

(d) **Stockholder Nominee Limits.** The number of Stockholder Nominees (including Stockholder Nominees that were submitted by an Eligible Stockholder for inclusion in the Corporation's proxy statement pursuant to this Section 2 but either are subsequently withdrawn or that the Board of Directors decides to nominate (a "Board Nominee")) appearing in the Corporation's proxy statement with respect to a meeting of stockholders shall not exceed the greater of: (x) two; or (y) 20% of the number of directors in office as of the last day on which notice of a nomination may be delivered pursuant to this Section 2 (the "Final Proxy Access Nomination Date") or, if such amount is not a whole number, the closest whole number below 20% (the "Permitted Number"); *provided, however*, that:

(i) in the event that one or more vacancies for any reason occurs on the Board of Directors at any time after the Final Proxy Access Nomination Date and before the date of the applicable annual meeting of stockholders and the Board of Directors resolves to reduce the size of the Board of Directors in connection therewith, the Permitted Number shall be calculated based on the number of directors in office as so reduced;

(ii) any Stockholder Nominee who is included in the Corporation's proxy statement for a particular meeting of stockholders but either: (A) withdraws from or becomes ineligible or unavailable for election at the meeting, or (B) does not receive at least 25% of the votes cast in favor of such Stockholder Nominee's election, shall be ineligible to be included in the Corporation's proxy statement as a Stockholder Nominee pursuant to this Section 2 for the next two (2) annual meetings of stockholders following the meeting for which the Stockholder Nominee has been nominated for election; and

(iii) any director in office as of the nomination deadline who was included in the Corporation's proxy statement as a Stockholder Nominee for any of the two (2) preceding annual meetings and whom the Board of Directors decides to nominate for election to the Board of Directors also will be counted against the Permitted Number.

In the event that the number of Stockholder Nominees submitted by Eligible Stockholders pursuant to this Section 2 exceeds the Permitted Number, each Eligible Stockholder shall select one Stockholder Nominee for inclusion in the Corporation's proxy statement until the Permitted Number is reached, going in order of the amount (from greatest to least) of voting power of the Corporation's capital stock entitled to vote on the election of directors as disclosed in the Notice of Proxy Access Nomination. If the Permitted Number is not reached after each Eligible Stockholder has selected one Stockholder Nominee, this selection process shall continue as many times as necessary, following the same order each time, until the Permitted Number is reached.

(e) **Eligibility of Nominating Stockholder; Stockholder Groups.** An Eligible Stockholder must have owned (as defined below) continuously for at least three years a number of shares that represents 3% or more of the outstanding shares of the Corporation entitled to vote in the election of directors (the "Required Shares") as of both the date the Notice of Proxy Access Nomination is delivered to or received by the Corporation in accordance with this Section 2 and the record date for determining stockholders entitled to vote at the meeting and must continue to own the Required Shares for at least one (1) year following the date of the annual meeting and deliver a statement regarding the Eligible Stockholder's intent with respect to continued ownership of the Required Shares for at least one (1) year following the annual meeting. For purposes of satisfying the ownership requirement under this Section 2, the voting power represented by the shares of the Corporation's capital stock owned by one or more stockholders, or by the person or persons who own shares of the Corporation's capital stock and on whose behalf any stockholder is acting, may be aggregated, provided that each stockholder or other person whose shares are aggregated shall have held such shares continuously for at least three years. Whenever an Eligible Stockholder consists of a group of stockholders and/or other persons, any and all requirements and obligations for an Eligible Stockholder set forth in this Section 2 must be satisfied by and as to each such stockholder or other person, except that shares may be aggregated to meet the Required Shares as provided in this Section 2(e). With respect to any one particular annual meeting, no stockholder or other person may be a member of more than one group of persons constituting an Eligible Stockholder under this Section 2.

(f) **Funds.** A group of two or more funds shall be treated as one stockholder or person for this Section 2 provided that the other terms and conditions in this Section 2 are met (including Section 2(h)(v)(A)) and the funds are:

(i) under common management and investment control;

(ii) under common management and funded primarily by the same employer (or by a group of related employers that are under common control); or

(iii) a "group of investment companies," as such term is defined in Section 12(d)(1)(G)(ii) of the Investment Company Act of 1940, as amended.

(g) **Ownership.** For purposes of this Section 2, an Eligible Stockholder shall be deemed to "own" only those outstanding shares of the Corporation's capital stock as to which the person possesses both:

(i) the full voting and investment rights pertaining to the shares; and

(ii) the full economic interest in (including the opportunity for profit and risk of loss on) such shares; provided that the number of shares calculated in accordance with clauses (i) and (ii) shall not include any shares:

(A) sold by such person or any of its affiliates in any transaction that has not been settled or closed,

(B) borrowed by such person or any of its affiliates for any purposes or purchased by such person or any of its affiliates pursuant to an agreement to resell, or

(C) subject to any option, warrant, forward contract, swap, contract of sale, other derivative, or similar agreement entered into by such person or any of its affiliates, whether any such instrument or agreement is to be settled with shares or with cash based on the notional amount or value of outstanding shares of the Corporation's capital stock, in any such case which instrument or agreement has, or is intended to have, the purpose or effect of: (1) reducing in any manner, to any extent or at any time in the future, such person's or affiliates' full right to vote or direct the voting of any such shares; and/or (2) hedging, offsetting, or altering to any degree gain or loss arising from the full economic ownership of such shares by such person or affiliate.

An Eligible Stockholder "owns" shares held in the name of a nominee or other intermediary so long as the Eligible Stockholder retains the right to instruct how the shares are voted with respect to the election of directors and possesses the full economic interest in the shares. An Eligible Stockholder's ownership of shares shall be deemed to continue during any period in which the Eligible Stockholder has delegated any voting power by means of a proxy, power of attorney, or other instrument or arrangement that is revocable at any time by the person. An Eligible Stockholder's ownership of shares shall be deemed to continue during any period in which the Eligible Stockholder has loaned such shares, provided that the Eligible Stockholder has the power to recall such loaned shares on three (3) business days' notice and recalls such loaned shares not more than three (3) business days after being notified that any of its Stockholder Nominees will be included in the Corporation's proxy statement. The terms "owned," "owning," and other variations of the word "own" shall have correlative meanings. For purposes of this Section 2, the term "affiliate" shall have the meaning ascribed thereto in the regulations promulgated under the Exchange Act.

(h) **Nomination Notice and Other Eligible Stockholder Deliverables.** An Eligible Stockholder must provide with its Notice of Proxy Access Nomination the following information in writing to the Secretary of the Corporation:

(i) one or more written statements from the record holder of the shares (and from each intermediary through which the shares are or have been held during the requisite three-year holding period) verifying that, as of a date within seven (7) calendar days prior to the date the Notice of Proxy Access Nomination is delivered to or received by the Corporation, the Eligible Stockholder owns, and has owned continuously for the preceding three years, the Required Shares, and the Eligible Stockholder's agreement to provide:

(A) within five (5) business days after the record date for the meeting, written statements from the record holder and intermediaries verifying the Eligible Stockholder's continuous ownership of the Required Shares through the record date, and

(B) immediate notice if the Eligible Stockholder ceases to own any of the Required Shares prior to the date of the applicable annual meeting of stockholders;

(ii) the Eligible Stockholder's representation and agreement that the Eligible Stockholder (including each member of any group of stockholders that together is an Eligible Stockholder under this Section 2):

(A) intends to continue to satisfy the eligibility requirements described in this Section 2 through the date of the annual meeting, including a statement that the Eligible Stockholder intends to continue to own the Required Shares for at least one (1) year following the date of the annual meeting,

(B) acquired the Required Shares in the ordinary course of business and not with the intent to change or influence control of the Corporation, and does not presently have such intent,

(C) has not nominated and will not nominate for election to the Board of Directors at the meeting any person other than the Stockholder Nominee(s) being nominated pursuant to this Section 2,

(D) has not engaged and will not engage in, and has not and will not be, a "participant" in another person's "solicitation" within the meaning of Rule 14a-1(l) under the Exchange Act in support of the election of any individual as a director at the meeting other than its Stockholder Nominee(s) or a Board Nominee,

(E) will not distribute to any stockholder any form of proxy for the meeting other than the form distributed by the Corporation,

(F) has provided and will provide facts, statements, and other information in all communications with the Corporation and its stockholders that are or will be true and correct in all material respects and do not and will not omit to state a material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading,

(G) agrees to assume all liability stemming from any legal or regulatory violation arising out of the Eligible Stockholder's communications with the Corporation's stockholders or out of the information that the Eligible Stockholder provides to the Corporation,

(H) agrees to indemnify and hold harmless the Corporation and each of its directors, officers, and employees individually against any liability, loss, or damages in connection with any threatened or pending action, suit, or proceeding, whether legal, administrative, or investigative, against the Corporation or any of its directors, officers, or employees arising out of any nomination submitted by the Eligible Stockholder pursuant to this Section 2,

(I) will file with the Securities and Exchange Commission any solicitation or other communication with the Corporation's stockholders relating to the meeting at which the Stockholder Nominee will be nominated, regardless of whether any such filing is required under Section 14 of the Exchange Act and the rules and regulations promulgated thereunder or whether any exemption from filing is available for such solicitation or other communication under Section 14 of the Exchange Act and the rules and regulations promulgated thereunder, and

(J) will comply with all other applicable laws, rules, regulations, and listing standards with respect to any solicitation in connection with the meeting;

(iii) the written consent of each Stockholder Nominee to be named in the Corporation's proxy statement, and form of proxy and ballot and, as a nominee and, if elected, to serve as a director;

(iv) a copy of the Schedule 14N (or any successor form) that has been filed with the Securities and Exchange Commission as required by Rule 14a-18 under the Exchange Act;

(v) in the case of a nomination by a group of stockholders that together is an Eligible Stockholder:

(A) documentation satisfactory to the Corporation demonstrating that a group of funds qualifies pursuant to the criteria set forth in Section 13(f) to be treated as one stockholder or person for purposes of this Section 2, and

(B) the designation by all group members of one group member that is authorized to act on behalf of all members of the nominating stockholder group with respect to the nomination and matters related thereto, including withdrawal of the nomination; and

(vi) if desired, a Supporting Statement.

(i) **Stockholder Nominee Agreement.** Each Stockholder Nominee must:

(i) complete, sign, and submit all Questionnaires within five (5) business days of receipt of each such Questionnaire from the Corporation; and

(ii) provide within five (5) business days of the Corporation's request such additional information as the Corporation determines may be necessary to permit the Board of Directors to determine whether such Stockholder Nominee meets the requirements of this Section 2 or the Corporation's requirements with regard to director qualifications and policies and guidelines applicable to directors, including whether:

(A) such Stockholder Nominee is independent under the independence requirements, including the committee independence requirements, set forth in the listing standards of the stock exchange on which shares of the Corporation's capital stock are listed, any applicable rules of the SEC, and any publicly disclosed standards used by the Board of Directors in determining and disclosing the independence of the directors (the “Independence Standards”),

(B) such Stockholder Nominee has any direct or indirect relationship with the Corporation that has not been deemed categorically immaterial pursuant to the Corporation’s Corporate Governance Guidelines, and

(C) such Stockholder Nominee is not and has not been subject to: (1) any event specified in Item 401(f) of Regulation S-K under the Securities Act of 1933, as amended (the “Securities Act”), or (2) any order of the type specified in Rule 506(d) of Regulation D under the Securities Act.

(j) **Eligible Stockholder/Stockholder Nominee Undertaking.** In the event that any information or communications provided by the Eligible Stockholder or Stockholder Nominee to the Corporation or its stockholders ceases to be true and correct in any respect or omits a fact necessary to make the statements made, in light of the circumstances under which they were made, not misleading, each Eligible Stockholder or Stockholder Nominee, as the case may be, shall promptly notify the Secretary of the Corporation of any such inaccuracy or omission in such previously provided information and of the information that is required to make such information or communication true and correct. Notwithstanding the foregoing, the provision of any such notification pursuant to the preceding sentence shall not be deemed to cure any defect or limit the Corporation's right to omit a Stockholder Nominee from its proxy materials as provided in this Section 2.

(k) **Exceptions Permitting Exclusion of Stockholder Nominee.** The Corporation shall not be required to include pursuant to this Section 2 a Stockholder Nominee in its proxy statement (or, if the proxy statement has already been filed, to allow the nomination of a Stockholder Nominee, notwithstanding that proxies in respect of such vote may have been received by the Corporation):

(i) if the Eligible Stockholder who has nominated such Stockholder Nominee has nominated for election to the Board of Directors at the meeting any person other than pursuant to this Section 2, or has or is engaged in, or has been or is a “participant” in another person's, “solicitation” within the meaning of Rule 14a-1(l) under the Exchange Act in support of the election of any individual as a director at the meeting other than its Stockholder Nominee(s) or a Board Nominee;

(ii) if the Corporation has received a notice (whether or not subsequently withdrawn) that a stockholder intends to nominate any candidate for election to the Board of Directors pursuant to the advance notice requirements for stockholder nominees for directors in Section 2 of this Article III;

(iii) who is not independent under the Independence Standards;

(iv) whose election as a member of the Board of Directors would violate or cause the Corporation to be in violation of these By-Laws, the Corporation’s Certificate of Incorporation, Corporate Governance Guidelines, Code of Business Conduct and Ethics, or other document setting forth qualifications for directors, the listing standards of the stock exchange on which shares of the Corporation's capital stock is listed, or any applicable state or federal law, rule, or regulation;

(v) if the Stockholder Nominee is or becomes a party to (1) any agreement, arrangement, or understanding with, and has not given any commitment or assurance to, any person or entity as to how such person, if elected as a director of the Corporation, will act or vote on any issue or question (a "Voting Commitment") that has not been disclosed to the Corporation; or (2) any Voting Commitment that could limit or interfere with such person's ability to comply, if elected as a director of the Corporation, with such person's fiduciary duties under applicable law;

(vi) if the Stockholder Nominee is or becomes a party to any agreement, arrangement, or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement, or indemnification in connection with such person's nomination for director or service as a director that has not been disclosed to the Corporation;

(vii) who is or has been, within the past three years, an officer or director of a competitor, as defined in Section 8 of the Clayton Antitrust Act of 1914;

(viii) who is a named subject of a pending criminal proceeding (excluding traffic violations and other minor offenses) or has been convicted in such a criminal proceeding within the past ten years;

(ix) who is subject to any order of the type specified in Rule 506(d) of Regulation D under the Securities Act; or

(x) if such Stockholder Nominee or the applicable Eligible Stockholder shall have provided information to the Corporation in respect of such nomination that was untrue in any material respect or omitted to state a material fact necessary in order to make the statement made, in light of the circumstances under which they were made, not misleading or shall have breached its or their agreements, representations, undertakings, or obligations pursuant to this Section 2.

(l) **Invalidity.** Notwithstanding anything to the contrary set forth herein, the Board of Directors or the person presiding at the meeting shall be entitled to declare a nomination by an Eligible Stockholder to be invalid, and such nomination shall be disregarded notwithstanding that proxies in respect of such vote may have been received by the Corporation; and the Corporation shall not be required to include in its proxy statement any successor or replacement nominee proposed by the applicable Eligible Stockholder or any other Eligible Stockholder if:

(i) the Stockholder Nominee and/or the applicable Eligible Stockholder shall have breached its or their agreements, representations, undertakings, or obligations pursuant to this Section 13, as determined by the Board of Directors or the person presiding at the meeting; or

(ii) the Eligible Stockholder (or a qualified representative thereof, as defined in Section 2(c)(2) of Article II) does not appear at the meeting to present any nomination pursuant to this Section 2.

SECTION 3. RESIGNATIONS. Any director, member of a committee or officer may resign at any time. Such resignation shall be made in writing, and shall take effect at the time specified therein, and if no time be specified, at the time of its receipt by the Chairman of the Board, the President or the Secretary. The acceptance of a resignation shall not be necessary to make it effective.

SECTION 4. VACANCIES. Subject to the rights of the holders of any outstanding series of Preferred Stock, if the office of any director becomes vacant for any reason, the remaining directors in office, though less than a quorum, or the sole remaining director shall have the exclusive right to fill such vacancy, and a director so chosen shall hold such office for a term expiring at the next annual meeting of stockholders; provided, however, that notwithstanding the foregoing, any vacancy resulting from the removal of a director may also be filled by the holders of a majority of the voting power of the outstanding capital stock of the Corporation entitled to vote thereon, and a director so chosen shall hold office for a term expiring at the next annual meeting of stockholders.

SECTION 5. REMOVAL. Except as hereinafter provided, any director or directors may be removed either for or without cause at any time by the affirmative vote of the holders of a majority of all the shares of stock outstanding

and entitled to vote at an election of directors; provided, however, that whenever the holders of any class or series of stock are entitled to elect one or more directors by the Certificate of Incorporation (including any Preferred Stock Designation), with respect to the removal without cause of a director or directors selected, the vote of the holders of the outstanding shares of that class or series and not the vote of the outstanding shares as a whole shall apply.

SECTION 6. INCREASE OF NUMBER. Subject to the rights of the holders of any outstanding series of Preferred Stock, newly created directorships resulting from an increase in the authorized number of directors may be filled by (i) the affirmative vote of a majority of the directors then in office, even if less than a quorum, or by the sole director in officer, or (ii) the affirmative vote of the holders of a majority of the voting power of the outstanding capital stock of the Corporation entitled to vote thereon, and any director so chosen shall serve for a term expiring at the next annual meeting of stockholders.

SECTION 7. POWERS. The Board of Directors shall exercise all of the powers of the Corporation except such as are by law, by the Certificate of Incorporation of the Corporation or by these By-Laws conferred or reserved to the stockholders.

SECTION 8. COMMITTEES. The Board of Directors may designate one or more committees, each such committee to consist of one or more of the directors of the Corporation. The Board of Directors may designate one or more directors as alternate members of any committee to replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members present at any meeting and not disqualified from voting, whether or not he, she or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

Any such committee, to the extent permitted by law and provided in the resolution of the Board of Directors establishing such committee, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to the following matters: (a) approving or adopting, or recommending to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval; or (b) adopting, amending or repealing any bylaw of the Corporation. All committees of the Board of Directors shall keep minutes of their meetings and shall report their proceedings to the Board of Directors when requested or required by the Board of Directors.

SECTION 9. MEETINGS. The newly elected directors may hold their first meeting for the purpose of organization and the transaction of business, if a quorum be present, immediately after the annual meeting of the stockholders; or the time and place of such meeting may be fixed by consent in writing of all the directors.

Regular meetings of the directors may be held without notice at such places, if any, and times as shall be determined from time to time by resolution of the directors.

Special meetings may be held at any time upon call of the Chair of the Board, the President or any two directors. The person or persons authorized to call special meetings of the Board of Directors may fix the place, if any, within or without the State of Delaware, date and time of such meetings. Notice of each such meeting shall be given to each director, if by mail, addressed to such director at such person’s residence or usual place of business, at least five days before the day on which such meeting is to be held, or shall be sent to such director by electronic transmission, or be delivered personally or by telephone, in each case at least 24 hours prior to the time set for such meeting. A notice of special meeting need not state the purpose of such meeting, and, unless indicated in the notice thereof, any and all business may be transacted at a special meeting.

The directors shall elect a Chair of the Board of Directors, who shall preside at all meetings of the Board of Directors and who shall have and perform such other duties as from time to time may be assigned to the Chair of the Board of Directors by the Board of Directors.

Unless otherwise restricted by the Certificate of Incorporation or these By-Laws, members of the Board of Directors or of any committee designated by the Board of Directors may participate in a meeting of the Board of Directors or such committee, as the case may be, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

SECTION 10. QUORUM. A majority of the directors then in office shall constitute a quorum for the transaction of business; provided that in no case shall less than one third of the total number of directors then authorized constitute a quorum. If at any meeting of the Board there shall be less than a quorum present, a majority of those present may adjourn the meeting from time to time until a quorum is obtained, and no further notice need be given other than by announcement at the meeting which shall be so adjourned.

SECTION 11. COMPENSATION. Directors, and members of any committee of the Board of Directors, shall be entitled to such reasonable compensation for serving as directors and as members of any committee as shall be fixed from time to time by resolution of the Board of Directors, and shall also be entitled to reimbursement for any reasonable expenses incurred in attending those meetings. The compensation of directors may be on any basis as determined in the resolution of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the Corporation in another capacity as an officer, agent or otherwise, and receiving compensation therefor.

SECTION 12. ACTION WITHOUT MEETING. Any action required or permitted to be taken at any meeting of the Board of Directors, or of any committee thereof, may be taken without a meeting if prior to such action all members of the Board or such committee, as the case may be, consent thereto in writing or by electronic transmission. After an action is taken, the writing or writings or electronic transmission or transmissions shall be filed with the minutes of proceedings of the Board or committee, respectively. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

SECTION 13. EMERGENCY BYLAWS. This Section 13 of Article III shall be operative during any emergency condition as contemplated by §110 of the DGCL (an “Emergency”), notwithstanding any different or conflicting provision in these By-Laws, the Certificate of Incorporation or the DGCL. In the event of any Emergency, or other similar emergency condition, the director or directors in attendance at a meeting of the Board of Directors or a standing committee thereof shall constitute a quorum. Such director or directors in attendance may further take action to appoint one or more of themselves or other directors to membership on any standing or temporary committee of the Board of Directors as they shall deem necessary or appropriate. Except as the Board of Directors may otherwise determine, during any Emergency, the Corporation and its directors and officers may exercise any authority and take any action or measure contemplated by §110 of the DGCL.

ARTICLE IV
OFFICERS

SECTION 1. OFFICERS. The officers of the Corporation shall be a President, a Chief Financial Officer and a Secretary, all of whom shall be elected by the Board of Directors and each of whom shall hold office until their successors are elected and qualified. In addition, the Board of Directors may elect one or more Vice Presidents, a Treasurer and such Assistant Secretaries and Assistant Treasurers as they may deem proper. None of the officers of the Corporation need be directors. More than two offices may be held by the same person.

SECTION 2. OTHER OFFICERS AND AGENTS. The Board of Directors may appoint such other officers and agents as it may deem advisable, who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board of Directors.

SECTION 3. PRESIDENT. The President shall be the chief executive officer of the Corporation. Subject to the provisions of these By-Laws and to the direction of the Board of Directors, the President shall have the responsibility for the general management and control of the business and affairs of the Corporation and shall perform all duties and have all powers which are commonly incident to the office of chief executive or which are delegated to the President by the Board of Directors. The President shall have the power to sign all contracts and

other instruments of the Corporation which are authorized and shall have general supervision and direction of all of the other officers, employees and agents of the Corporation.

SECTION 4. VICE PRESIDENT. Each Vice President, if any, shall have such powers as shall be assigned by the Board of Directors and shall perform such duties as shall be assigned by the President or the Board of Directors.

SECTION 5. CHIEF FINANCIAL OFFICER. The Chief Financial Officer shall have the custody of the corporate funds and securities and shall keep full and accurate account of receipts and disbursements in books belonging to the Corporation. The Chief Financial Officer shall deposit all moneys and other valuables in the name and to the credit of the Corporation in such depositaries as may be designated by the Board of Directors.

The Chief Financial Officer shall disburse the funds of the Corporation as may be ordered by the Board of Directors or the President, taking proper vouchers for such disbursements. The Chief Financial Officer shall render to the President and the Board of Directors at the regular meetings of the Board of Directors, or whenever they may request it, an account of all such officer's transactions as Chief Financial Officer and of the financial condition of the Corporation. If required by the Board of Directors, the Chief Financial Officer shall give the Corporation a bond for the faithful discharge of such officer's duties, in such amount and with such surety as the Board of Directors shall prescribe.

SECTION 6. SECRETARY. The Secretary shall give, or cause to be given, notice of all meetings of stockholders and directors, and all other notices required by law or by these By-Laws, and in case of such person's absence or refusal or neglect so to do, any such notice may be given by any person thereunto directed by the President, or by the Board of Directors. The Secretary shall record all the proceedings of the meetings of the Corporation and of the directors, in a book to be kept for that purpose, and shall perform such other duties as may be assigned to Secretary by the Board of Directors or by the President. The Secretary shall have the custody of the seal of the Corporation and shall affix the same to all instruments requiring it, when authorized by the directors or the President, and attest the same.

SECTION 7. TREASURER. The Treasurer, if any, shall have the powers as shall be assigned to the Treasurer by the Board of Directors and shall perform such duties as shall be assigned by the President or the Board of Directors.

SECTION 8. ASSISTANT TREASURERS AND ASSISTANT SECRETARIES. Assistant Treasurers and Assistant Secretaries, if any, shall have such powers as shall be assigned to them, respectively, by the Board of Directors and shall perform such duties as shall be assigned by the President or the Board of Directors.

SECTION 9. DELEGATION OF AUTHORITY. The Board of Directors may from time-to-time delegate the powers or duties of any officer to any other officers or agents, notwithstanding any provision hereof.

SECTION 10. REMOVAL. Any officer of the Corporation may be removed at any time, with or without cause, by the Board of Directors.

SECTION 11. ACTION WITH RESPECT TO SECURITIES OF OTHER CORPORATIONS. Unless otherwise directed by the Board of Directors, the President or any officer of the Corporation authorized by the President, shall have power to vote and otherwise act on behalf of the Corporation, in person or by proxy, at any meeting of stockholders of or with respect to any action of security holders of any other entity in which this Corporation may hold securities and otherwise to exercise any and all rights and powers which this Corporation may possess by reason of its ownership of securities in such other entity.

ARTICLE V
STOCK CERTIFICATES AND THEIR TRANSFER

SECTION 1. CERTIFICATE OF STOCK. The shares of the Corporation shall be represented by certificates; provided, however, that the Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by

a certificate until such certificate is surrendered to the Corporation. Every holder of stock represented by certificates shall be entitled to have a certificate signed by or in the name of the Corporation by any two authorized officers of the Corporation, including, without limitation, the President, the Chief Financial Officer, the Treasurer, the Secretary, or an Assistant Treasurer or Assistant Secretary certifying the number of shares owned by such holder in the Corporation. Any or all such signatures may be facsimiles. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if such person were such officer, transfer agent or registrar at the date of issue.

SECTION 2. LOST CERTIFICATES. The Corporation may issue a new share certificate or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate or the owner's legal representative to give the Corporation a bond (or other adequate security) sufficient to indemnify it against any claim that may be made against it (including any expense or liability) on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares. The Board of Directors may adopt such other provisions and restrictions with reference to lost certificates, not inconsistent with applicable law, as it shall in its discretion deem appropriate.

SECTION 3. TRANSFER OF SHARES. The shares of stock of the Corporation shall be transferable only upon its books upon authorization by the holders thereof or by their duly authorized attorneys or legal representatives, and if such shares are certificated shares, upon surrender of the certificate or certificates for such shares properly endorsed or accompanied by a duly executed stock transfer power and the payment of any taxes thereon; provided, however, that the Corporation shall be entitled to recognize and enforce any lawful restriction on transfer.

SECTION 4. STOCKHOLDERS RECORD DATE. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date pursuant to §213 of the DGCL.

ARTICLE VI
INDEMNIFICATION OF DIRECTORS AND OFFICERS

SECTION 1. GENERAL. The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation) by reason of the fact that such person is or was a director or officer of the Corporation, or, while a director or officer, is or was serving at the request of the Corporation, as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and accounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person (a) acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Corporation and (b) with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person (x) did not act in good faith and in a manner which such person reasonably believed to be in or not opposed to the best interests of the Corporation and (y) with respect to any criminal action or proceeding, did not have reasonable cause to believe that such person's conduct was unlawful.

SECTION 2. DERIVATIVE ACTIONS. The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that such person is or was a director or officer of the Corporation, or, while a director or officer, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense

or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Corporation, provided, however, that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Corporation unless and only to the extent that the Court of Chancery of the State of Delaware or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

SECTION 3. INDEMNIFICATION IN CERTAIN CASES.

(a) Notwithstanding anything to the contrary in this Article VI, the Corporation shall not be required to indemnify any person pursuant to this Article VI in connection with an action, suit or proceeding (or part thereof) initiated by that person unless (1) the initiation thereof was approved by the Board of Directors or (2) the initiation thereof was in connection with successfully establishing that person's right to indemnification or advancement of expenses under this Article VI.

(b) To the extent that a current or former director or officer of the Corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in Sections 1 and 2 of this Article VI, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.

SECTION 4. PROCEDURE. Any indemnification under Sections 1 and 2 of this Article VI (unless ordered by a court) shall be made by the Corporation only as authorized in the specific case upon a determination that indemnification of the director or officer is proper in the circumstances because such person has met the applicable standard of conduct set forth in such Sections 1 and 2. Such determination shall be made with respect to a person who is a current director or officer of the Corporation at the time of such determination (a) by a majority vote of the directors who are not parties to such action, suit or proceeding, even though less than a quorum; (b) by a committee of such directors designated by a majority vote of such directors, even though less than a quorum; (c) if there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion; or (d) by the stockholders.

SECTION 5. ADVANCES FOR EXPENSES. Expenses (including attorneys' fees) reasonably incurred by a current or former officer or director in defending a civil, criminal, administrative or investigative action, suit or proceeding shall be paid by the Corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such person to repay such amount unless it shall be ultimately determined that such person is entitled to be indemnified by the Corporation as authorized in this Article VI. Such expenses (including attorneys' fees) incurred by other employees and agents of the Corporation may be so paid upon such terms and conditions, if any, as the Board of Directors deems appropriate.

SECTION 6. RIGHTS NON-EXCLUSIVE. The indemnification and advancement of expenses provided by or granted pursuant to this Article VI shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under law, by-law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office.

SECTION 7. INSURANCE. The Corporation shall have power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the Corporation would have the power to indemnify such person against such liability under the provisions of this Article VI.

SECTION 8. DEFINITION OF CORPORATION. For the purposes of this Article VI, reference to the "Corporation" shall include any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to

indemnify its directors, officers and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise shall stand in the same position under this Article VI with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued.

SECTION 9. OTHER DEFINITIONS. For purposes of this Article VI, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to any employee benefit plan; and references to "serving at the request of the Corporation" shall include any service as a director, officer, employee or agent of the Corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the Corporation" as referred to in this Article VI.

SECTION 10. NATURE OF RIGHTS. The rights conferred in this Article VIII shall be contract rights and such rights shall continue as to an any person who has ceased to be a director or officer and shall inure to the benefit of such person's heirs, executors and administrators. Any amendment, alteration or repeal of this Article VI that adversely affects any right of an indemnitee or its successors shall be prospective only and shall not limit, eliminate, or impair any such right with respect to any proceeding involving any occurrence or alleged occurrence of any action or omission to act that took place prior to such amendment or repeal.

ARTICLE VII
GENERAL PROVISIONS

SECTION 1. DIVIDENDS. Subject to the provisions of the Certificate of Incorporation, the Board of Directors may, out of funds legally available therefor at any regular or special meeting, declare dividends upon the capital stock of the Corporation as and when they deem expedient. Before declaring any dividend there may be set apart out of any funds of the Corporation available for dividends, such sum or sums as the directors from time to time in their discretion deem proper for working capital or as a reserve fund to meet contingencies or for equalizing dividends or for such other purposes as the directors shall deem conducive to the interests of the Corporation.

SECTION 2. SEAL. The Board of Directors may provide a suitable seal, containing the name of the Corporation, which seal shall be in the charge of the Secretary of the Corporation. If and when so directed by the Board of Directors or a committee thereof, duplicates of the seal may be kept and used by the Treasurer or by an Assistant Secretary or Assistant Treasurer.

SECTION 3. FISCAL YEAR. The fiscal year of the Corporation shall be determined by resolution of the Board of Directors.

SECTION 4. CHECKS. All checks, drafts or other orders for the payment of money, notes or other evidences of indebtedness issued in the name of the Corporation shall be signed by such officer or officers, agent or agents of the Corporation, and in such manner an shall be determined from time to time by resolution of the Board of Directors.

SECTION 5. WAIVER OF NOTICE. Whenever notice is required to be given under any provision of the DGCL or the Certificate of Incorporation or these By-Laws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders, the Board of Directors or a committee of the Board of Directors need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the Certificate of Incorporation or these By-Laws.

ARTICLE VIII
AMENDMENTS

These By-Laws may be altered or repealed and By-Laws may be made (a) by the affirmative vote of the holders of a majority of voting power of the stock issued and outstanding and entitled to vote thereon, or (b) by the Board of Directors.

ARTICLE IX
EXCLUSIVE FORUM

SECTION 1. FORUM. Unless the Corporation, in writing, selects or consents to the selection of an alternative forum: (a) the sole and exclusive forum for any complaint asserting any internal corporate claims (as defined below), to the fullest extent permitted by law, and subject to applicable jurisdictional requirements, shall be the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have, or declines to accept, jurisdiction, another state court or a federal court located within the State of Delaware); and (b) the sole and exclusive forum for any complaint asserting a cause of action arising under the Securities Act of 1933, to the fullest extent permitted by law, shall be the federal district courts of the United States of America. For purposes of this Article IX, internal corporate claims means claims, including claims in the right of the Corporation that are based upon a violation of a duty by a current or former director, officer, employee or stockholder in such capacity, or as to which the DGCL confers jurisdiction upon the Court of Chancery. Any person or entity purchasing or otherwise acquiring or holding any interest in shares of stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Article IX.

SECTION 2. ENFORCEABILITY. If any provision of this Article IX shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provision in any other circumstance and of the remaining provisions of this Article IX (including, without limitation, each portion of any sentence of this Article IX containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities or circumstances shall not in any way be affected or impaired thereby.

Exhibit 10.1

[*] Certain information in this document has been omitted from this exhibit because it is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

EXECUTION VERSION

FOURTH AMENDED AND RESTATED LICENSE AGREEMENT

THIS FOURTH AMENDED AND RESTATED LICENSE AGREEMENT (this "AGREEMENT"), dated as of June 29, 2022 (the "FOURTH AMENDMENT EFFECTIVE DATE"), by and between YALE UNIVERSITY, a corporation organized and existing under and by virtue of a charter granted by the general assembly of the Colony and State of Connecticut and located in New Haven, Connecticut ("YALE"), and CELLDEX THERAPEUTICS, INC., a corporation organized and existing under the laws of the State of Delaware as successor to KOLLTAN PHARMACEUTICALS, INC ("KOLLTAN") with principal offices located at 53 Frontage Road, Suite 220 Hampton NJ 08827 ("LICENSEE") is effective as of the FOURTH AMENDMENT EFFECTIVE DATE.

RECITALS

WHEREAS, in the course of research conducted under YALE auspices, Dr. Joseph Schlessinger, an employee of YALE ("SCHLESSINGER"), and the other inventors performing research under SCHLESSINGER's immediate supervision (together with any and all people from time to time performing research under SCHLESSINGER's immediate supervision at YALE, the "SCHLESSINGER LAB") and Dr. Irit Lax, an employee of YALE ("LAX"), and the other inventors performing research under LAX's immediate supervision, in the course of studying RTK biology, have produced and may continue to produce compositions of matter, know-how, methods, data and intellectual property that have and may continue to lead to the discovery and development of active substances that may induce, prevent, modify or otherwise modulate the activation of an RTK for the purpose of diagnosing, preventing or treating a disease or condition (the "INVENTIONS");

WHEREAS, as of the FOURTH AMENDMENT EFFECTIVE DATE, SCHLESSINGER does not serve on the LICENSEE Board of Directors but serves on LICENSEE'S Scientific Advisory Board;

WHEREAS, YALE permits its faculty such as SCHLESSINGER to engage in consulting consistent with YALE policies such as the Yale University Patent Policy, and LICENSEE acknowledges that SCHLESSINGER's involvement with LICENSEE is subject to the Yale University Patent Policy;

WHEREAS, YALE wishes to have the INVENTIONS and any resulting patents commercialized to benefit the public good;

WHEREAS, YALE is willing to grant a license to LICENSEE, subject to the terms and conditions of this AGREEMENT;

WHEREAS, YALE and KOLLTAN have previously entered into an Exclusive License Agreement (the "ORIGINAL LICENSE AGREEMENT"), dated May 30, 2008 (the "ORIGINAL LICENSE AGREEMENT EFFECTIVE DATE");

WHEREAS, YALE and KOLLTAN have previously entered into an Amended and Restated Exclusive License Agreement (the "AMENDED AND RESTATED LICENSE AGREEMENT"), dated November 23, 2010;

WHEREAS, YALE and KOLLTAN have previously entered into a Second Amended and Restated Exclusive License Agreement (the "SECOND AMENDED AND RESTATED LICENSE AGREEMENT"), dated December 23, 2011 (the "SECOND AMENDMENT EFFECTIVE DATE");

WHEREAS, YALE and KOLLTAN have previously entered into a Third Amended and Restated Exclusive License Agreement (the "THIRD AMENDED AND RESTATED LICENSE AGREEMENT"), dated March 14, 2013 (the "THIRD AMENDMENT EFFECTIVE DATE") which THIRD AMENDED AND RESTATED LICENSE AGREEMENT was amended by AMENDMENT No.1 dated March 21, 2014 and by AMENDMENT No. 2 dated December 1, 2014;

WHEREAS CELLDEX acquired KOLLTAN on November 1, 2016 (the "KOLLTAN ACQUISITION") and succeeded to the rights and obligations of KOLLTAN under the THIRD AMENDED AND RESTATED LICENSE AGREEMENT;

WHEREAS, since the ORIGINAL LICENSE AGREEMENT EFFECTIVE DATE, certain INVENTIONS related to the KLOTHO TECHNOLOGY have been added as LICENSED PATENTS under the THIRD AMENDED AND RESTATED LICENSE AGREEMENT;

WHEREAS, certain disputes have arisen under the THIRD AMENDED AND RESTATED LICENSE AGREEMENT between YALE and CELLDEX related to certain milestone payments under Section 5.4 and Section 5.5;

WHEREAS, CELLDEX and YALE now wish to amend and restate the THIRD AMENDED AND RESTATED LICENSE AGREEMENT in its entirety and resolve any disputes thereunder; and

WHEREAS, since SCHLESSINGER is no longer MEANINGFULLY INVOLVED AT LICENSEE, in order to minimize potential disagreements between the parties as to the genesis of unpatented know-how, materials and methods incorporated by LICENSEE into its RTK PRODUCTS, the parties have agreed that only the INCLUDED PRODUCT CANDIDATES shall be deemed PRODUCTS IN CLASS under this AGREEMENT and that no other RTK PRODUCTS developed or acquired by LICENSEE before or after the FOURTH AMENDMENT EFFECTIVE DATE shall be PRODUCTS IN CLASS under this AGREEMENT;

WHEREAS, the parties have further agreed as of the FOURTH AMENDMENT EFFECTIVE DATE, that no YALE US or foreign patent applications that claim RTK TECHNOLOGY developed in the SCHLESSINGER LAB or by LAX shall be considered

LICENSED PATENTS unless such patent applications relate to or cover the INCLUDED PRODUCT CANDIDATES; and

WHEREAS simultaneously with the execution of this AGREEMENT, the Parties are entering into the KLOTHO RETURNED TECHNOLOGY AGREEMENT (annexed hereto as APPENDIX H) (the "KLOTHO RETURNED TECHNOLOGY AGREEMENT") pursuant to which the Parties have agreed to terminate the license granted hereunder to the KLOTHO PATENTS and KLOTHO TECHNOLOGY.

NOW THEREFORE, in consideration of these statements and mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which the parties hereby acknowledge, YALE and LICENSEE agree to the terms of this AGREEMENT.

ARTICLE 1. REPRESENTATIONS AND WARRANTIES

1.1 LICENSEE represents and warrants to YALE as follows:

(a) LICENSEE is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware; has all corporate power to carry on its business as presently conducted and to own and operate its properties and assets;

(b) The execution, delivery and performance by LICENSEE of this AGREEMENT have been duly authorized by all necessary corporate action by LICENSEE;

(c) There is no pending or, to LICENSEE's knowledge, threatened litigation involving LICENSEE which would have any material adverse effect on this AGREEMENT or on LICENSEE's ability to perform its obligations hereunder; and

(d) There is no indenture, contract or other agreement to which LICENSEE is a party or by which LICENSEE is bound which prohibits or would prohibit the execution and delivery by LICENSEE of this AGREEMENT or the performance or observance by LICENSEE of any material term of provision of this AGREEMENT.

(e) The patents and patent applications listed on Appendix F is, to LICENSEE's actual knowledge, a complete and accurate list of LICENSEE PATENTS (as defined in Section 2.27) which are active as of the FOURTH AMENDMENT EFFECTIVE DATE. For avoidance of doubt LICENSEE shall not be obliged to maintain these patents or continue to prosecute pending applications and all such actions shall be entirely at its sole discretion. LICENSEE is free to abandon any of the LICENSEE PATENTS at its sole discretion.

1.2 YALE represents and warrants to LICENSEE as follows:

(a) The execution, delivery and performance by YALE of this AGREEMENT have been duly authorized by all necessary requisite action on the part of YALE and YALE has all right, power and authority necessary to grant the LICENSE and to perform its obligations hereunder;

(b) There is no pending or, to YALE's knowledge, threatened patent or contract litigation involving YALE which would have any material adverse effect on this AGREEMENT or on YALE's ability to perform its obligations hereunder;

(c) There is no indenture, contract or other agreement to which YALE is a party or by which YALE is bound which prohibits or would prohibit the execution and delivery by YALE of this AGREEMENT or the performance or observance by YALE of any material term or provision of this AGREEMENT;

(d)

(i) YALE holds all right, title and interest in and to the LICENSED PATENTS existing as of the EFFECTIVE DATE and is the sole and exclusive owner thereof, subject only to the rights, if any, of the United States government and its agencies, as specified in Section 3.5; and

(ii) Except as set forth on Appendix D, YALE has adequate right, title and interest in and to the LICENSED KNOW-HOW, LICENSED MATERIALS and LICENSED METHODS existing as of the EFFECTIVE DATE sufficient to grant the LICENSE thereof to LICENSEE under this AGREEMENT and LICENSEE does not have and will not have any present or future obligations to any third party arising out of such grant; and

(iii) Except as set forth on Appendix D, as of the EFFECTIVE DATE, neither YALE's Office of Cooperative Research, SCHLESSINGER nor LAX has received written notice of, and has no reasonable knowledge of any basis for, any claim that the use by LICENSEE of TECHNOLOGY, if and to the extent such use is known to YALE's Office of Cooperative Research, SCHLESSINGER or LAX, infringes on any patent or misappropriates any other intellectual property or ownership right of any third party; and

(e)

(i) The LICENSED PATENTS listed on Appendix A is, to YALE's actual knowledge, a complete and accurate list of all patents and patent applications to which YALE has rights and which claim, describe or otherwise relate to an RTK TECHNOLOGY as of the FOURTH AMENDMENT EFFECTIVE DATE.

(ii) Except to the extent such LICENSED PATENTS have been invented or co-invented by an individual who is not SCHLESSINGER, LAX, or an employee in the SCHLESSINGER LAB or the LAX LAB, YALE will hold all right, title and interest in and to the LICENSED PATENTS that arise after the EFFECTIVE DATE and YALE will be the sole and exclusive owner thereof, subject only to the rights, if any, of the United States government and its agencies, as specified in Section 3.5; and

(iii) YALE will have adequate right, title and interest in and to the LICENSED PATENTS (to the extent such LICENSED PATENTS have been invented or co invented by an individual who is not SCHLESSINGER, LAX, or an employee in the SCHLESSINGER LAB or the LAX LAB) and LICENSED MATERIALS that arise after the EFFECTIVE DATE, in each case sufficient to grant the LICENSE thereof to LICENSEE under

this AGREEMENT and, except as YALE may inform LICENSEE in writing upon the provision of any such LICENSED MATERIALS to LICENSEE, LICENSEE will not have any present or future obligations to any third party arising out of such grant with respect to such LICENSED PATENTS or LICENSED MATERIALS; and

(f) YALE will promptly notify LICENSEE in writing if, after the EFFECTIVE DATE, YALE's Office of Cooperative Research, SCHLESSINGER or LAX receives written notice of, or has reasonable knowledge of any basis for, any claim that the use by LICENSEE of TECHNOLOGY, if and to the extent such use is known to YALE's Office of Cooperative Research, SCHLESSINGER or LAX, infringes on any patent or misappropriates any other intellectual property or ownership right of any third party relating to RTK TECHNOLOGY; and

(g) So as to minimize the chances of any future disputes, YALE will use good faith reasonable efforts to segregate any work SCHLESSINGER or LAX may undertake with respect to [*]-FUNDED PATENTS, and intellectual property related thereto, from any other work SCHLESSINGER and LAX may undertake with respect to RTK TECHNOLOGY and RTK PRODUCTS;

(h) Each YALE employee who is an inventor of potentially patentable intellectual property licensed pursuant to this AGREEMENT has agreed to assign to YALE (and, in the case of such potentially patentable intellectual property existing as of the EFFECTIVE DATE, has assigned to YALE), by written instrument sufficient in form, scope and substance for such purpose, all of such inventor's right, title and interest in and to such potentially patentable intellectual property and any resulting patents; and

ARTICLE 2. DEFINITIONS

The following terms used in this AGREEMENT shall be defined as set forth below:

2.1 "AFFILIATE" shall mean any entity or person that directly or indirectly controls, is controlled by or is under common control with LICENSEE. For purposes of this definition, "control" means possession of the power to direct the management of such entity or person, whether through ownership of more than fifty percent (50%) of voting securities, by contract or otherwise.

2.2 "APPROVED PRODUCT" shall mean a PRODUCT, the sale, marketing, and use of which in humans (or other animals) has been approved by the FDA, or, as to a PRODUCT sold, marketed, or used in a country other than the United States, that has been approved to the extent necessary by the comparable required government authority in such country.

2.3 "c-MET" shall have the meaning set forth on APPENDIX I.

2.4 "CDX-3379" shall have the meaning set forth on APPENDIX I.

2.5 "CDX-0159" shall have the meaning set forth on APPENDIX I.

2.6 “CHANGE OF CONTROL” shall mean:

(a) any consolidation, merger, combination, reorganization or other business combination transaction to which LICENSEE is a party and in which LICENSEE is not the surviving entity; or

(b) (i) all of the outstanding shares of voting stock of LICENSEE are exchanged for or changed into other stock or securities, cash, financial vehicle and/or any other property and (ii) persons who were stockholders of LICENSEE immediately prior to such exchange or change do not hold securities entitled to at least 50% of the voting power of the entity surviving such exchange or change or the entity into whose securities for or into which the voting stock of LICENSEE is exchanged or changed; or

(c) a sale or other disposition (other than by license and/or sublicense) of all or substantially all of the assets of LICENSEE for cash, securities or other property.

and in any such case in the preceding clause (a), (b) or (c) the surviving entity in such transaction (if LICENSEE is not the surviving entity) or LICENSEE and the entity of which LICENSEE shall have become an AFFILIATE in such transaction or the person who shall have purchased or otherwise acquired all or substantially all of LICENSEE’s assets, as the case may be, shall meet all of the following:

1. immediately after such transaction, shall have cash and cash equivalent assets at least equal to $200 million, determined on a pro forma consolidated basis; and

2. during the two fiscal years immediately preceding such transaction, shall have had positive cash flow, determined on a pro forma consolidated basis; and

3. immediately after such transaction, the amount of its cash and cash equivalent assets shall equal at least twice its cash requirements for the 12 consecutive full calendar months immediately following such transaction, determined on a pro forma consolidated basis.

For the avoidance of doubt, the Parties acknowledge and agree that the KOLLTAN ACQUISITION did not constitute a CHANGE OF CONTROL.

2.7 “CLAIMS” is defined in Section 14.1.

2.8 “CONFIDENTIAL INFORMATION” shall mean all information disclosed by one party to the other during the negotiation of or under this AGREEMENT, the THIRD AMENDED AND RESTATED LICENSE AGREEMENT, the SECOND AMENDED AND RESTATED LICENSE AGREEMENT, the AMENDED AND RESTATED LICENSE AGREEMENT or the ORIGINAL LICENSE AGREEMENT in any manner, whether in writing or orally, visually or in tangible form, that relates to the TECHNOLOGY or this AGREEMENT or the THIRD AMENDED AND RESTATED LICENSE AGREEMENT, SECOND AMENDED AND RESTATED LICENSE AGREEMENT or the AMENDED AND RESTATED LICENSE AGREEMENT or the ORIGINAL LICENSE AGREEMENT, unless such information is subject to an exception described in Section 8.2 and shall include the terms of any sublicense or proposed sublicense and any information or reports of or about any SUBLICENSEE that LICENSEE may

from time to time provide to YALE pursuant to this AGREEMENT; provided, however, that CONFIDENTIAL INFORMATION that is disclosed in tangible form shall be marked "Confidential" at the time of disclosure and CONFIDENTIAL INFORMATION that is disclosed orally or visually shall be identified as confidential within thirty (30) days after the time of disclosure and subsequently reduced to writing, marked confidential and delivered to the other party within thirty (30) days of such disclosure. CONFIDENTIAL INFORMATION shall include, without limitation, materials, know-how and data, technical or non-technical, inventions, methods and processes, whether or not patentable and all information provided by LICENSEE to YALE pursuant to Section 7.3. Notwithstanding anything in this Section, CONFIDENTIAL INFORMATION shall be deemed to include any scientific data, information or know-how that a reasonable scientist would believe is confidential, whether in written, oral, visual or tangible form, disclosed by LICENSEE to SCHLESSINGER or LAX, unless such information is subject to an exception described in Section 8.2.

2.9 INTENTIONALLY OMITTED.

2.10 "EARNED ROYALTY" is defined in Section 6.1.

2.11 "EFFECTIVE DATE" shall mean the FOURTH AMENDMENT EFFECTIVE DATE.

2.12 "EQUITY CONSIDERATION" shall mean with respect to grant of any sublicense (or similar transaction) as at the date of the closing of the sublicense or upon achievement of any milestones, the receipt by LICENSEE or any AFFILIATES of any EQUITY INTERESTS.

2.13 "EQUITY INTERESTS" means with respect to any sublicensee (or counterparty), (i) any shares of capital stock of(or other ownership or profits interests) in such sublicensee (or counterparty) or any affiliates of such sublicensee, or (ii) any warrants, options or other rights for the purchase or acquisition of capital stock (or other ownership or profits interests) in such sublicensee (or counterparty) or any affiliates of such sublicensee, or (iii) any securities convertible into or exchangeable for shares of capital stock (or other ownership of profits interests) in such sublicensee (or counterparty) or any affiliates of such sublicensee or (iv) any warrants rights or options for the purchase or acquisition from such sublicensee (or counterparty) (including partnership, member or trust interests therein), whether voting or non-voting and whether or not such shares, warrants, options, rights or other interest are outstanding on any date of determination. For the purpose of this Section 2.13 the term "affiliate" shall mean any entity or person that directly or indirectly controls, is controlled by or is under common control with such sublicensee. For purposes of this definition, "control" means possession of the power to direct the management of such entity or person, whether through ownership of more than fifty percent (50%) of voting securities, by contract or otherwise.

2.14 "FDA" shall mean the United States Food and Drug Administration or any comparable governmental agency in any territory with regulatory authority in or for a country or group of countries other than the United States.

2.15 "FEDERAL PATENT POLICY" is defined in Section 3.5.

2.16 “FIRST SALE” shall mean the first sale to a third party of any PRODUCT IN CLASS in any country in which such product is an APPROVED PRODUCT, or the first sale to a third party of a service using a LICENSED METHOD. For the avoidance of doubt, if LICENSEE is providing services to a third party in the context of a sublicense of the TECHNOLOGY or a drug development collaboration with such third party, the provision of such services shall not qualify as a FIRST SALE.

2.17 “GAAP” is defined in Section 9.3.

2.18 “[*]-FUNDED PATENTS” shall mean any United States or foreign patent application(s) and patents(s) filed by or on behalf of YALE during the TERM that claim RTK TECHNOLOGY, where such RTK TECHNOLOGY is made, created, developed, discovered, conceived or first reduced to practice by or on behalf of SCHLESSINGER, LAX, the SCHLESSINGER LAB or the LAX LAB and such activities (i.e., the making, creation, development, discovery, conception or first reduction to practice of such RTK TECHNOLOGY) are funded in whole or in part by [*]. (“[*]”) pursuant to an agreement between [*] and YALE in effect as of or following the SECOND AMENDMENT EFFECTIVE DATE. To the extent that YALE has the right with respect to such patent applications or patents to grant rights to parties other than [*], such rights held by YALE shall not be deemed to be [*]-FUNDED PATENTS and shall thus be included in the definition of LICENSED PATENTS (to the extent such rights would otherwise fall within the definition of LICENSED PATENTS). In order to establish clarity, when any patent application that is a [*]-FUNDED PATENT publishes, YALE shall notify LICENSEE within thirty (30) days of the date of such publication.

2.19 “INCLUDED PRODUCT CANDIDATES” shall mean only the following product candidates of LICENSEE (as may be renamed by LICENSEE after FOURTH AMENDMENT EFFECTIVE DATE): (i) CDX-3379 (ii) CDX-0159 (iii) TAM PRODUCTS and (iv) c-MET (each of the foregoing as defined on APPENDIX I). A full definition of the INCLUDED PRODUCT CANDIDATES is set forth on APPENDIX I.

2.20 “IND” shall mean an Investigational New Drug and/or Diagnostic application filed with the FDA prior to beginning clinical trials in humans (or other animals) in the United States or in or for any country or group of countries outside the United States.

2.21 “IND APPROVAL” shall mean approval of an IND filed with the FDA.

2.22 “INDEMNIFIED PERSONS” is defined in Section 14.1.

2.23 “INVENTIONS” is defined in the recitals to this AGREEMENT.

2.24 “INSOLVENT” shall mean that that LICENSEE (i) has admitted in writing its inability to pay its debts generally when due or (ii) has commenced bankruptcy, reorganization, receivership or insolvency proceedings, or any other proceeding under any Federal, state or other law for the relief of debtors.

2.25 “KLOTHO PATENTS” has the meaning assigned to that term in the KLOTHO

RETURNED TECHNOLOGY AGREEMENT.

2.26 “KLOTHO TECHNOLOGY” has the meaning assigned to that term in the KLOTHO RETURNED TECHNOLOGY AGREEMENT.

2.27 “LICENSEE PATENTS” shall mean:

(a) the United States or foreign patent application(s) and patents(s) listed in Appendix F;

(b) any United States or foreign patent application(s) and patents(s) filed by or on behalf of LICENSEE after the SECOND AMENDMENT EFFECTIVE DATE that claim RTK TECHNOLOGY, but only to the extent both (i) the RTK TECHNOLOGY claimed in such patent application(s) or patents(s) is made, created, developed, discovered, conceived or first reduced to practice by a LICENSEE employee while SCHLESSINGER is or was MEANINGFULLY INVOLVED AT YALE and MEANINGFULLY INVOLVED AT LICENSEE and (ii) such patent application(s) or patent(s) covers a composition of matter, method of use or method of manufacture for an INCLUDED PRODUCT CANDIDATE;

(c) any continuations, divisionals, and continuations-in-part, and continued prosecution application(s), to the extent the claims of any such patent or patent application are directed to subject matter specifically described in the patent applications described in clause (a) or (b);

(d) any reissues, re-examinations, renewals, or extensions of patent applications or patents described in clause (a), (b) or (c), or substitutes therefor; and

(e) the relevant international equivalents of any of the patents or patent applications described in clause (a), (b), (c) or (d).

All LICENSEE PATENTS existing as of the FOURTH AMENDMENT EFFECTIVE DATE are listed on Appendix F which is incorporated into this AGREEMENT. For avoidance of doubt no rights or licenses to any LICENSEE PATENTS or any other intellectual property or proprietary rights owned or controlled by LICENSEE are implied or granted to YALE under this Agreement.

2.28 “LAX” is defined in the recitals to this AGREEMENT.

2.29 “LAX LAB” shall mean LAX, and any other individuals performing research from time to time under LAX’s immediate supervision at YALE, for so long as LICENSEE provides the RESEARCH SUPPORT described in Section 3.4(b).

2.30 “LICENSE” is defined in Section 3.4.

2.31 “LICENSED KNOW-HOW” shall mean (i) except as set forth on Appendix D, any inventions (other than LICENSED PATENTS) and any information, know-how, technical and non-technical data, processes and any drawings, plans, diagrams, specifications, and/or other documents or data forms containing such information (collectively, the “KNOW-HOW”), discovered, developed or acquired by or on behalf of SCHLESSINGER, LAX, the

SCHLESSINGER LAB or the LAX LAB (including, for the avoidance of doubt, under the RESEARCH AGREEMENT), in each case prior to or after the ORIGINAL LICENSE AGREEMENT EFFECTIVE DATE, that may be used for the discovery, development, selection, improvement of, or use as, an RTK PRODUCT that is an INCLUDED PRODUCT CANDIDATE or LICENSED METHOD; and (ii) the VISITING SCIENTIST IP, that: (x) in the case of both (i) and (ii), is not claimed in a LICENSED PATENT and (y) in the case of (i) only, is disclosed to LICENSEE by SCHLESSINGER, LAX, the SCHLESSINGER LAB or the LAX LAB and that, with respect to such KNOW-HOW that is discovered, developed or acquired after the SECOND AMENDMENT EFFECTIVE DATE.

2.32 "LICENSED MATERIALS" shall mean, except as set forth on Appendix D, tangible materials (including, but not limited to, pharmaceutical, chemical and biochemical products) (collectively, the "MATERIALS") discovered, developed or acquired by or on behalf of SCHLESSINGER, LAX, the SCHLESSINGER LAB or the LAX LAB (including, for the avoidance of doubt, under the RESEARCH AGREEMENT) prior to or after the ORIGINAL LICENSE AGREEMENT EFFECTIVE DATE that may be used for the discovery, development, selection, improvement of or use as an RTK PRODUCT that is an INCLUDED PRODUCT CANDIDATE or LICENSED METHOD that is provided to LICENSEE by SCHLESSINGER, LAX, the SCHLESSINGER LAB or the LAX LAB and that, with respect to such materials that are discovered, developed or acquired after the SECOND AMENDMENT EFFECTIVE DATE. To the extent that any materials provided by SCHLESSINGER, LAX, the SCHLESSINGER LAB or the LAX LAB to LICENSEE after the SECOND AMENDMENT EFFECTIVE DATE are not owned 100% by YALE, YALE shall, at the time such materials are provided to LICENSEE, notify LICENSEE of such fact in writing (with such notice identifying the source of such materials and which other party(ies) might have an ownership interest in such materials) and this definition shall only apply to the extent of YALE's ownership interest in such materials.

2.33 "LICENSED METHODS" shall mean any method, procedure, service or process (collectively, the "METHODS"), discovered, developed or acquired by or on behalf of SCHLESSINGER, LAX, the SCHLESSINGER LAB or the LAX LAB, whether existing on or after the ORIGINAL LICENSE AGREEMENT EFFECTIVE DATE, the practice of which, in the absence of a license from YALE, would infringe a VALID CLAIM of a LICENSED PATENT that covers any composition of matter, method of use or method of manufacture for any INCLUDED PRODUCT CANDIDATE, in each case that is disclosed to LICENSEE by SCHLESSINGER, LAX, the SCHLESSINGER LAB or the LAX LAB and, that, with respect to such methods that are discovered, developed or acquired after the SECOND AMENDMENT EFFECTIVE DATE. To the extent that any METHODS provided by SCHLESSINGER, LAX, the SCHLESSINGER LAB or the LAX LAB to LICENSEE after the SECOND AMENDMENT EFFECTIVE DATE are not owned 100% by YALE, YALE shall, at the time such METHODS are provided to LICENSEE, notify LICENSEE of such fact in writing (with such notice identifying the source of such METHODS and which other party(ies) might have an ownership interest in such METHODS) and this definition shall only apply to the extent of YALE's ownership interest in such METHODS.

2.34 "LICENSED PATENTS" shall mean:

(a) the United States or foreign patent application(s) and patents(s) listed in

Appendix A and owned by YALE during the TERM;

(b) Intentionally Omitted;

(c) to the full extent owned or controlled (with the ability to grant licenses or sublicenses) by YALE, any United States or foreign patent application(s) and patents(s) filed by or on behalf of YALE after the SECOND AMENDMENT EFFECTIVE DATE that claim RTK TECHNOLOGY, but only to the extent both (i) the RTK TECHNOLOGY claimed in such patent application(s) or patents(s) is made, created, developed, discovered, conceived or first reduced to practice by or on behalf of SCHLESSINGER, LAX, the SCHLESSINGER LAB or the LAX LAB (including, for the avoidance of doubt, under the RESEARCH AGREEMENT) and (ii) such patent application(s) or patent(s) covers a composition of matter, method of use or method of manufacture for an INCLUDED PRODUCT CANDIDATE, but in all cases excluding the [*]-FUNDED PATENTS;

(d) any continuations, divisionals, and continuations-in-part, and continued prosecution application(s), to the extent the claims of any such patent or patent application are directed to subject matter specifically described in the patent applications described in clause (a) or (b);

(e) any reissues, re-examinations, renewals, or extensions of patent applications or patents described in clause (a), (b) or (c), or substitutes therefor; and

(f) the relevant international equivalents of any of the patents or patent applications described in clause (a), (b), (c) or (d).

All LICENSED PATENTS existing as of the FOURTH AMENDMENT EFFECTIVE DATE are listed on Appendix A which is incorporated into this AGREEMENT.

2.35 “LICENSED TERRITORY” shall mean Worldwide.

2.36 “LMR” is defined in Section 5.2.

2.37 “MEANINGFULLY INVOLVED AT LICENSEE” shall mean a situation whereby SCHLESSINGER has an active consulting agreement with LICENSEE, or is a member of the Scientific Advisory Board of LICENSEE, or has a similar arrangement whereby SCHLESSINGER provides advice on a regular basis to LICENSEE; provided, however, that notwithstanding the foregoing, the parties agree that SCHLESSINGER, effective as of the EFFECTIVE DATE, is no longer MEANINGFULLY INVOLVED AT LICENSEE and shall not at any time thereafter be MEANINGFULLY INVOLVED AT LICENSEE, regardless of whether or not SCHLESSINGER has an active consulting agreement with LICENSEE, or is a member of the Scientific Advisory Board of LICENSEE, or has a similar arrangement whereby SCHLESSINGER provides advice on a regular basis to LICENSEE.

2.38 “MEANINGFULLY INVOLVED AT YALE” shall mean a situation whereby SCHLESSINGER is serving as an employee or faculty member (including an emeritus faculty member) at YALE.

2.39 “MINIMUM DIRECT COSTS” is defined in Section 7.5.

2.40 **“**MRP**”** is defined in Section 6.3.

2.41 “NDA” shall mean (i) a New Drug Application or Biologic License Application filed with the FDA to obtain marketing approval for a PRODUCT IN CLASS in the United States; or (ii) a foreign equivalent of (i).

2.42 “NET SALES” shall mean:

(a) gross invoice price from the sale, lease or other transfer or disposition, other than by sublicense, of a PRODUCT IN CLASS or LICENSED METHOD, or from services performed using a PRODUCT IN CLASS or LICENSED METHOD, by LICENSEE or any SUBLICENSEE or AFFILIATE to third parties, except as set forth in Section 2.42(b), in each case from and after the FIRST SALE of such PRODUCT IN CLASS or LICENSED METHOD, less the following deductions, provided they actually pertain to the disposition of the PRODUCTS IN CLASS or LICENSED METHODS and, in the case of the items specified in the immediately succeeding clauses (i) and (ii), are separately stated on the applicable invoice:

(i) all discounts, credits and allowances on account of returns;

(ii) transportation and insurance; and

(iii) duties, taxes and other governmental charges levied on the sale, transportation or delivery of PRODUCTS IN CLASS or practice of the LICENSED METHODS, but not including income taxes.

No deductions shall be made for any other costs or expenses, including, but not limited to, commissions to independent sales agents or those on LICENSEE’s or a SUBLICENSEE’s or AFFILIATE’s payroll or for the cost of collection.

(b) “NET SALES” shall not include the gross invoice price for PRODUCTS IN CLASS or LICENSED METHODS sold to, or services performed using PRODUCTS IN CLASS or LICENSED METHODS for, any AFFILIATE unless such AFFILIATE is an end-user of any PRODUCT IN CLASS or LICENSED METHOD, in which case such consideration shall be included in NET SALES at the average selling price charged to a third party during the same quarter.

2.43 “ORIGINAL LICENSE AGREEMENT” is defined m the recitals to this AGREEMENT.

2.44 “ORIGINAL LICENSE AGREEMENT EFFECTIVE DATE” is defined in the recitals to this AGREEMENT.

2.45 “PHASE 1 STUDY” shall mean a human clinical trial in any country that is intended to initially evaluate the safety of an investigational PRODUCT IN CLASS in volunteer subjects or patients that would satisfy the requirements of 21 CFR 312.21 (a), or other comparable regulation imposed by the FDA or its foreign counterpart.

2.46 “PHASE 2 STUDY” shall mean a human clinical trial in any country that is conducted to evaluate the effectiveness of the PRODUCT IN CLASS for a particular indication or indications in patients with the disease or condition under study and to determine the common short-term side effects and risks associated with the drug that would satisfy the requirements of 21 CFR 312.21(b), or other comparable regulation imposed by the FDA or its foreign counterpart.

2.47 “PHASE 3 STUDY” shall mean a pivotal human clinical trial in any country the results of which could be used to establish safety and efficacy of a PRODUCT IN CLASS as a basis for a marketing application that would satisfy the requirements of 21 CFR 312.21(c) or other comparable regulation imposed by the FDA or its foreign counterpart.

2.48 “PIVOTAL TRIAL” shall mean a controlled clinical trial to evaluate the safety and/or efficacy of a given PRODUCT IN CLASS and/or a given LICENSED METHOD in humans. Each such clinical trial should show safety and efficacy to a statistical significance and suffice as demonstration of such PRODUCT IN CLASS’s or such LICENSED METHOD’s safety and efficacy such that the results of said trial are the basis for the filing of an NDA for such a PRODUCT IN CLASS and/or such a LICENSED METHOD.

2.49 “PLAN” is defined in Section 7.1.

2.50 “PRODUCT” shall mean any form of product, including but not limited to, a service, a method, a diagnostic (or the like), a drug and other type of therapeutic for human (or other) disease or condition, including, without limitation, gene therapy constructs, small molecules, proteins, peptides, peptidomimetics, antisense constructs, antibody-drug conjugates or any other natural or synthetic molecule, and assays run in reference labs for fee-for-service diagnostic tests.

2.51 “PRODUCT IN CLASS” shall mean only an RTK PRODUCT that is an INCLUDED PRODUCT CANDIDATE.

2.52 “REASONABLE COMMERCIAL EFFORTS” shall mean documented efforts:

(a) that are consistent with those utilized by companies of similar size and type and at a similar stage of corporate development to LICENSEE, which companies have successfully developed therapeutic or prophylactic products similar to the proposed PRODUCTS IN CLASS described in the PLAN and/or services of a type similar to LICENSED METHODS described in the PLAN; and

(b) that are consistent with the interests of LICENSEE’s stockholders and the development of a PRODUCT IN CLASS and/or commercial application of LICENSED METHODS and that constitute a prudent and commercially reasonable use of LICENSEE’s capital resources; and

(c) that are evidenced by a record of incurring MINIMUM DIRECT COSTS, which shall include the RESEARCH SUPPORT, and additional documented expenditures appropriate to the stage of development of one or more PRODUCTS IN CLASS and/or commercial application of LICENSED METHODS.

2.53 “REDUCED EARNED ROYALTY” is defined in Section 6.1.

2.54 “RESEARCH AGREEMENT” shall mean (i) the Amended and Restated Research Agreement, dated as of the SECOND AMENDMENT EFFECTIVE DATE, by and between YALE and LICENSEE, as the same may be amended, extended, renewed or replaced from time to time and (ii) the Research Agreement between YALE and LICENSEE dated as of June 4, 2008.

2.55 “RESEARCH PROGRAM” shall mean the research program that has been and will continue to be conducted under the RESEARCH AGREEMENT.

2.56 “RESEARCH SUPPORT” shall mean amounts payable by LICENSEE to YALE under the RESEARCH AGREEMENT.

2.57 “RTK” shall mean a tyrosine kinase receptor.

2.58 “RTK PRODUCT” shall mean any PRODUCT that may induce, prevent, modify or otherwise modulate the activation of one or more RTKs for the purpose of diagnosing, preventing or treating a disease or condition in humans or non-human animals.

2.59 “RTK TECHNOLOGY” shall mean all inventions and any information, know how, technical and non-technical data, methods and processes and any drawings, plans, diagrams, specifications, and/or other documents or data form containing such information that directly relates to (i) one or more RTKs and the activity, modification and/or modulation thereof or (ii) RTK PRODUCTS (including, but not limited to, the composition, method of use or method of manufacture of RTK PRODUCTS).

2.60 “SCHLESSINGER” is defined in the recitals to this AGREEMENT.

2.61 “SCHLESSINGER LAB” is defined in the recitals to this AGREEMENT.

2.62 “SUBLICENSEE” shall mean any third party sublicensed by LICENSEE to make, have made, use, sell, offer for sale, have sold, import or export any PRODUCT IN CLASS or to practice any LICENSED METHOD.

2.63 “SUBLICENSE INCOME” shall mean consideration in any form actually received by LICENSEE or an AFFILIATE in connection with a grant to any third party or parties of a sublicense or other right, license, privilege or immunity to make, have made, use, sell, have sold, distribute, import or export PRODUCTS IN CLASS or to practice the TECHNOLOGY, but excluding consideration that may be received by LICENSEE or an AFFILIATE as a royalty (or similar consideration) on sales of such PRODUCTS IN CLASS. SUBLICENSE INCOME shall include, without limitation, but subject to the following sentence, any license signing fee, license maintenance fee, milestone payments, unearned portion of any minimum royalty payment received by LICENSEE, EQUITY CONSIDERATION, and any distribution or joint marketing fee. SUBLICENSE INCOME shall not include:

(a) any payments or reimbursements for past, present or future research, development, manufacturing or commercial launch activity, including, without limitation, laboratory research, clinical research and development, process development, regulatory

approvals or certifications, reimbursement for payments due to YALE pursuant to Section 5.5 or Section 5.8, and commercial launch expenses, except where, and to the extent that, such payments or reimbursements are in excess of LICENSEE's external costs and reasonably attributable internal costs incurred in undertaking such activities;

(b) any consideration received for an equity interest in, extension of credit to, or other investment in, LICENSEE or an AFFILIATE;

(c) any reimbursement for patent expenses or other costs or expenses of LICENSEE or an AFFILIATE associated with creating or maintaining intellectual property protection; or

In case an extension of credit to LICENSEE by a SUBLICENSEE, as described in clause (b) above, is forgiven in whole or in part by the SUBLICENSEE, within thirty (30) days thereafter LICENSEE shall by notice to YALE provide information in reasonable detail showing the categories and uses of such funds for purposes of determining the amount thereof, if any, that constitutes SUBLICENSE INCOME. YALE may request in writing and LICENSEE shall not unreasonably refuse to provide in writing additional information about the categories and uses of such forgiven extension of credit.

2.64 "TAM PRODUCT" shall have the meaning set forth on APPENDIX I.

2.65 "TECHNOLOGY" shall mean LICENSED KNOW-HOW, LICENSED MATERIALS, LICENSED METHODS, and/or LICENSED PATENTS. For clarity, as set forth in the KLOTHO RETURNED TECHNOLOGY AGREEMENT, the LICENSED KNOW-HOW, LICENSED MATERIALS, LICENSED METHODS, LICENSED PATENTS and TECHNOLOGY are deemed not to include any of the KLOTHO PATENTS or KLOTHO TECHNOLOGY.

2.66 "TERM" is defined in Section 3.7.

2.67 "TERMINATION EVENT" shall mean:

(a) LICENSEE, fails to make any payment whatsoever due and payable pursuant to this AGREEMENT and LICENSEE shall fail to make all such payments (and to pay all interest due on such payments under Section 6.4) for thirty (30) days after receipt of written notice of such failure from YALE; or

(b) LICENSEE commits a material breach of any provision of this AGREEMENT (other than as provided in the immediately preceding clause (a)) which breach (1) if capable of being cured, shall continue uncured for sixty (60) days after LICENSEE receives written notice thereof from YALE, which notice shall identify such breach in reasonable detail, or (2) is not capable of being cured; or

(c) LICENSEE fails to obtain or maintain insurance as described in Article 14; or

(d) LICENSEE gives notice to YALE pursuant to Section 7.4(a) or (b); or

(e) the occurrence of any of the events set forth in Section 7.4(a) or (b).

2.68 "TERMINATION EVENT INFORMATION NOTICE" is defined in Section 13.4(a).

2.69 "TERMINATION EVENT NOTICE" is defined in Section 13.4(b).

2.70 "VALID CLAIM" shall mean, as the context requires, (i) an issued and unexpired claim of a LICENSED PATENT so long as such claim shall not have been irrevocably abandoned or declared to be invalid in a non-appealable decision of a court or other authority of competent jurisdiction through no fault or cause of LICENSEE or (ii) an issued and unexpired claim of a LICENSEE PATENT so long as such claim shall not have been irrevocably abandoned or declared to be invalid in a non-appealable decision of a court or other authority of competent jurisdiction.

2.71 "VISITING SCIENTIST IP'' shall mean any intellectual property resulting from work done by LICENSEE employees in laboratory space in the Department of Pharmacology at the Yale School of Medicine during the period from November 17, 2008 through June 22, 2009 where such intellectual property was created by such LICENSEE employees. Such VISITING SCIENTIST IP may include inventions, discoveries, developments, technical information, trade secrets, know-how, methods, techniques, formulae, data, information, processes, intellectual property and other proprietary ideas, whether patentable or patented or not patentable or not yet patented. Some VISITING SCIENTIST IP is described in more detail in Appendix C, which is hereby incorporated into this AGREEMENT. YALE and LICENSEE have previously entered into (1) a Visiting Scientist Agreement, effective November 14, 2008, as amended by Amendment One to Visiting Scientist Agreement, effective January 5, 2009 and (2) a separate Visiting Scientist Agreement, effective January 5, 2009 (collectively, the "Two Visiting Scientist Agreements"). It is understood and agreed that any VISITING SCIENTIST IP shall be governed by the terms of this AGREEMENT, in addition to the Two Visiting Scientist Agreements, however, in the case of any inconsistencies between this AGREEMENT and one or both of the Two Visiting Scientist Agreements, the provisions of this AGREEMENT shall prevail. LICENSEE hereby acknowledges that, during the term of each of the Two Visiting Scientist Agreements, LICENSED KNOW-HOW was provided to LICENSEE pursuant to the terms of the ORIGINAL LICENSE AGREEMENT, and LICENSEE hereby acknowledges having received and made use of such LICENSED KNOW-HOW from YALE.

ARTICLE 3. LICENSE GRANT AND TERM

3.1 Subject to all the terms and conditions of this AGREEMENT, YALE hereby grants to LICENSEE an exclusive license under all of YALE's interest in the LICENSED PATENTS, LICENSED MATERIALS and LICENSED METHODS to make, have made, use, sell, offer for sale, have sold, import or export therapeutic and prophylactic PRODUCTS IN CLASS in the LICENSED TERRITORY, with the right to sublicense as provided in this AGREEMENT.

3.2 Subject to all the terms and conditions of this AGREEMENT, YALE hereby grants to LICENSEE a non-exclusive license under all of YALE's interest in the LICENSED PATENTS and LICENSED METHODS and LICENSED MATERIALS to make, have made, use, sell, offer for sale, have sold, import or export diagnostic PRODUCTS IN CLASS within the LICENSED

TERRITORY, with the right to sublicense as provided in this AGREEMENT.

3.3 Subject to all the terms and conditions of this AGREEMENT, YALE hereby grants to LICENSEE a non-exclusive license under all of YALE's interest in the LICENSED KNOW-HOW to make, have made, use, sell, offer for sale, have sold, import or export any PRODUCTS IN CLASS, method, procedure, service or process in the LICENSED TERRITORY, with the right to sublicense as provided in this AGREEMENT.

3.4 (a) Collectively, the rights granted to LICENSEE under Section 3.1, Section 3.2 and Section 3.3 shall be the "LICENSE". The LICENSE is further subject to all the terms and conditions of this AGREEMENT, including, without limitation, YALE's right to terminate the LICENSE if a TERMINATION EVENT has occurred and is continuing by reason of, among other things, LICENSEE's failure to pay all amounts due to YALE pursuant to Articles 5, 6, and 10 and LICENSEE's failure to comply with Section 7.5.

(b) Part of the consideration received by YALE for the grant of the LICENSE is LICENSEE's obligation under the RESEARCH AGREEMENT to provide RESEARCH SUPPORT in the aggregate amount of Nine Million Dollars ($9,000,000), consisting of One Million Five Hundred Thousand Dollars per year over the six-year period provided in the RESEARCH AGREEMENT, with all such consideration having been paid prior to the EFFECTIVE DATE. As of the EFFECTIVE DATE, the RESEARCH AGREEMENT has expired and is of no further force or effect.

3.5 To the extent that any invention included within the LICENSED PATENTS has been funded in whole or in part by the United States government, the United States government retains certain rights in such invention as set forth in 35 U.S.C. §200-212 and all regulations promulgated thereunder, as amended, and any successor statutes and regulations (the "FEDERAL PATENT POLICY"). As a condition of the grant of the LICENSE, LICENSEE acknowledges and shall comply with all aspects of the FEDERAL PATENT POLICY applicable to the LICENSED PATENTS, including the obligation that PRODUCTS IN CLASS used or sold in the United States be manufactured substantially in the United States. Nothing contained in this AGREEMENT obligates or shall obligate YALE to take any action that would conflict in any respect with its past, current or future obligations to the United States Government under the FEDERAL PATENT POLICY with respect to the LICENSED PATENTS.

3.6 The LICENSE is expressly made subject to YALE's reservation of the right, on behalf of itself and all other non-profit academic research institutions, to make, use and practice the TECHNOLOGY for academic research, clinical, teaching or other non-commercial purposes, and not for purposes of commercial development, use, manufacture, sale or distribution. Nothing in this AGREEMENT shall be construed to grant by implication, estoppel or otherwise any licenses under patents of YALE other than the LICENSED KNOW-HOW, LICENSED MATERIALS, LICENSED METHODS, and LICENSED PATENTS.

3.7 The term of the LICENSE (the "TERM") shall commence on the ORIGINAL LICENSE AGREEMENT EFFECTIVE DATE and, unless terminated earlier as provided in Article 13, shall automatically expire, on a country-by-country basis, on the date that is the latest of whichever of the following is applicable:

(a) the date on which the last of the VALID CLAIMS of the patents included in the LICENSED PATENTS in such country expires, lapses or is declared to be invalid by a final decision of a court or other authority of competent jurisdiction, not subject to further appeal, through no fault or cause of LICENSEE; and

(b) the date that is fifteen (15) years after the last LICENSED KNOW-HOW, LICENSED MATERIALS, or LICENSED METHODS have been provided to LICENSEE by YALE under this AGREEMENT; and

(c) the date that is fifteen (15) years from the date of FIRST SALE of a PRODUCT IN CLASS;

but in no event shall the TERM end later than the date that is thirty (30) years after the ORIGINAL LICENSE AGREEMENT EFFECTIVE DATE.

3.8 YALE hereby agrees that, after the EFFECTIVE DATE except for [*]-FUNDED PATENTS, YALE will not grant any third party (including [*]) any rights, for any therapeutic or prophylactic uses, in any LICENSED PATENTS.

3.9 In the event that YALE materially breaches a representation or warranty contained in Section 1.2 with respect to the TECHNOLOGY (a "Section 1.2 Breach"), which in turn creates potential liability for LICENSEE (including, potentially, for its AFFILIATES or SUBLICENSEES) to YALE or a third party ("Section 1.2 Liability"), YALE hereby agrees it will never institute any action or suit at law or in equity against LICENSEE or its AFFILIATES or its SUBLICENSEES alleging Section 1.2 Liability with respect to the use by LICENSEE or its AFFILIATES or SUBLICENSEES of the component(s) of the TECHNOLOGY that was(were) the subject of the Section 1.2 Breach, nor institute, prosecute or in any way aid in the institution or prosecution of any claim, demand, suit, action, or cause of action for damages, costs, other compensation or injunctive relief for or on account of any Section 1.2 Liability, whether developed or undeveloped, resulting or to result, known or unknown, past, present or future, arising out of the use by LICENSEE or its AFFILIATES or its SUBLICENSEES of the component(s) of the TECHNOLOGY that was(were) the subject of the Section 1.2 Breach. For the avoidance of doubt, the preceding sentence shall in no way limit LICENSEE's ability to seek other remedies with respect to YALE, nor shall it in any way limit LICENSEE's obligations to comply in good faith with all provisions of this AGREEMENT with which it is able to comply notwithstanding the Section 1.2 Breach.

3.10 INTENTIONALLY OMITTED.

3.11 INTENTIONALLY OMITTED.

ARTICLE 4. SUBLICENSES

4.1 Any sublicense by LICENSEE of the rights granted to it under this AGREEMENT shall comply with the provisions of Sections 4.2, 4.3 and 4.4.

4.2 Subject to Section 4.5, any sublicense granted by LICENSEE shall include terms under which the SUBLICENSEE agrees with the LICENSEE, and shall include provisions in favor

of LICENSEE, as sublicensor thereunder, substantially the same as are provided in Section 7.1, Section 7.2, Section 7.3, Section 7.4, Article 8, Section 9.1, Section 9.2, Section 10.6, Article 12 and Article 14 of this AGREEMENT with respect to the subject matter of such sublicense and the related definitions in this AGREEMENT. LICENSEE will provide YALE with a copy of each sublicense agreement (and all amendments thereof) within thirty (30) days of execution of such agreement or amendment. LICENSEE shall not be responsible for the performance of any SUBLICENSEE under any such sublicense and shall be obligated to pay royalties and other amounts that arise from such sublicense and are due to YALE only as and to the extent such SUBLICENSEE pays the same to LICENSEE.

4.3 LICENSEE shall pay royalties to YALE on NET SALES of PRODUCTS IN CLASS by SUBLICENSEES based on the same royalty rate as apply to NET SALES by LICENSEE and its AFFILIATES under Article 6, regardless of the royalty rates payable by SUBLICENSEES to LICENSEE under a sublicense agreement. In addition, LICENSEE shall pay to YALE the percentage of any SUBLICENSE INCOME with respect to PRODUCTS IN CLASS as set forth below (based on the stage of development that the INCLUDED PRODUCT CANDIDATE that is the subject of such sublicense has reached as of the effective date of the applicable sublicense agreement):

STAGE OF DEVELOPMENT	**% OF SUBLICENSE INCOME**
PRECLINICAL	[*]%
AFTER INITIATING PHASE 1 STUDY	[*]%
AFTER INITIATING PHASE 2 STUDY	[*]%
AFTER INITIATING PHASE 3 STUDY	[*]%

For clarity, the SUBLICENSE INCOME tiers set forth in the above table are not cumulative, and any payment made with respect to SUBLICENSE INCOME shall be made only with respect to the latest stage of developed reached by the applicable product candidate or product as of the effective date of the applicable sublicense agreement. By way of example, if LICENSEE sublicenses rights to a product candidate after INITIATING a Phase 2 Study, but before INITIATING a Phase 3 Study, LICENSEE will only be required to pay under this Section 4.3 [*] ([*]%) SUBLICENSE INCOME from such sublicense (i.e., no additional payments for any earlier tiers will be due). For purposes of this Section 4.3, INITIATING shall mean the dosing of the first subject in the applicable PHASE 1 STUDY, PHASE 2 STUDY or PHASE 3 STUDY. For clarity, LICENSEE'S obligation to pay a percentage of SUBLICENSE INCOME shall not apply to (i) any amounts received by LICENSEE from YALE under the KLOTHO RETURNED TECHNOLOGY AGREEMENT or (ii) any amounts that are not related to any of the INCLUDED PRODUCT CANDIDATES.

4.4 LICENSEE agrees that it shall:

(a) within thirty (30) days of execution by the parties, provide YALE with a copy of any amendments to sublicenses granted by LICENSEE under this AGREEMENT, and within thirty (30) days after termination of any sublicense, notify YALE of such termination; and

(b) within thirty (30) days of receipt, provide complete copies of all reports provided to LICENSEE by SUBLICENSEES pursuant to any sublicense; *provided*, *however*, that LICENSEE may omit or redact from the copies so provided to YALE any portion of the reports of a SUBLICENSEE which portion contains information that LICENSEE would not have otherwise been required to report to YALE under Section 7.3 if such report were provided by LICENSEE directly; and

(c) use commercially reasonable efforts to seek compliance in all material respects by each SUBLICENSEE with the terms of the sublicense to which such SUBLICENSEE is a party.

(d) Pay to YALE any SUBLICENSE INCOME due hereunder within ninety (90) days after LICENSEE receives such SUBLICENSE INCOME. Notwithstanding the foregoing, if LICENSEE receives any SUBLICENSE INCOME that consists of EQUITY CONSIDERATION (or other non-cash consideration), LICENSEE shall at LICENSEE's election, either promptly transfer YALE's share of such EQUITY CONSIDERATION (or other non-cash consideration) to YALE, or sell YALE's share of such EQUITY CONSIDERATION (or other non-cash consideration) for cash as soon as practicable in an arm's length transaction at fair market value in accordance with applicable securities laws and regulations. Following such sale, LICENSEE shall then pay to YALE the cash actually received by LICENSEE in exchange for the EQUITY CONSIDERATION (or other non-cash consideration) within ninety (90) days of the date that LICENSEEreceived the proceeds from the sale of the EQUITY CONSIDERATION (or other non-cash consideration).

4.5 If LICENSEE proposes to enter into a sublicense that does not include terms that require SUBLICENSEE thereunder to agree substantially as provided in Sections 7.1 and 7.2 of this AGREEMENT (and the related definitions) with respect to the subject matter of such sublicense, then LICENSEE shall submit the proposed form of such sublicense to YALE for review and approval prior to entering into such sublicense. YALE's review and approval of any such sublicense shall be limited to the terms of the due diligence obligations of SUBLICENSEE thereunder, provided that such sublicense otherwise complies with the requirements of Sections 4.2 and 4.3 of this AGREEMENT. YALE shall notify LICENSEE of any objections it may have to the due diligence terms of a proposed sublicense within fifteen (15) days after LICENSEE submits such sublicense to YALE for its review and approval, and LICENSEE shall notify YALE of LICENSEE's response to said objections within fifteen (15) days after receipt of YALE's objections. YALE shall not unreasonably withhold its consent to any such sublicense provided that LICENSEE substantively responds to YALE's objections.

4.6 Notwithstanding anything contained herein to the contrary and for the avoidance of doubt, LICENSEE shall not owe any royalties or other payments to YALE in respect of any amounts received by LICENSEE pursuant to the KLOTHO RETURNED TECHNOLOGY AGREEMENT.

ARTICLE 5. LICENSE ISSUE ROYALTY; LICENSE MAINTENANCE ROYALTY; MILESTONE ROYALTIES

5.1 The parties acknowledge that LICENSEE paid to YALE, within ninety (90) days after the ORIGINAL LICENSE AGREEMENT EFFECTIVE DATE, a non-refundable license

issue royalty of Fifty Thousand Dollars ($50,000.00).

5.2 During the TERM, LICENSEE agrees to pay to YALE an annual license maintenance royalty ("LMR") commencing with the first anniversary of the ORIGINAL LICENSE AGREEMENT EFFECTIVE DATE according to the following schedule:

Anniversary of the ORIGINAL LICENSE AGREEMENT EFFECTIVE DATE	**LMR**
[*]	$[*]
[*]	$[*]

until LICENSEE starts to pay MRP under Section 6.3. The parties acknowledge that, as of the EFFECTIVE DATE, LICENSEE has paid YALE all previously due LMR payments.

5.3 LICENSEE shall pay YALE, the following non-refundable milestones in connection with the development and/or commercialization of C-MET:

MILESTONE	AMOUNT
Upon dosing of first subject in Phase 3 Study	$[*]
Upon Regulatory Approval in 1st Indication	$[*]
The first calendar year in which net sales of C-MET by LICENSEE's SUBLICENSEE are greater than or equal to $[*]	$[*]

For the avoidance of doubt, each of the foregoing milestones shall be payable only once even if C-MET achieves a given milestone more than once.. No other milestones shall be due or payable in connection with C-MET regardless of whether or not there may be any CHANGE IN CONTROL.

5.4 In connection with the commercialization of CDX-0159 and CDX-3379 LICENSEE shall pay YALE, a non-refundable milestone royalty of Three Million Dollars ($3,000,000.00) when LICENSEE has collected at least [*] Dollars ($[*]) in NET SALES of such PRODUCT. No other milestones shall then be due or payable in connection with CDX-0159 and CDX-3379 regardless of whether or not there is any CHANGE IN CONTROL.

5.5 In connection with the development and/or commercialization of TAM PRODUCTS either:

(i), If IND APPROVAL of a TAM PRODUCT occurs prior to any CHANGE OF CONTROL, LICENSEE shall pay YALE a non-refundable milestone royalty of [*] Dollars ($[*]) when LICENSEE has collected at least [*]Dollars ($[*]) in NET SALES of such TAM

PRODUCT (and no further milestones shall then be due or payable in respect of any TAM PRODUCT); or

(ii) alternatively, if IND APPROVAL of a TAM PRODUCT occurs after a CHANGE OF CONTROL, 5.4 then LICENSEE shall instead pay the following milestone royalties:

(a) a non-refundable milestone royalty of [*] Dollars ($[*]) upon [*]; and

(b) a non-refundable milestone royalty of [*] Dollars ($[*]) upon [*] ; and

(c) a non-refundable milestone royalty of [*] Dollars ($[*]) upon [*] ; and

(d) a non-refundable milestone royalty of [*] Dollars ($[*]) upon [*] ; and

(e) a non-refundable milestone royalty of [*] Dollars ($[*]) upon [*] ;

(f) and no further milestones shall then be due or payable in respect of any TAM PRODUCT.

5.6 For the avoidance of doubt, each of the foregoing milestone royalties (where applicable) shall be payable only once for each therapeutic or prophylactic PRODUCT IN CLASS, even if such PRODUCT IN CLASS achieves a given milestone more than once.

5.7 Intentionally Omitted.

5.8 None of the license issue royalty set forth in Section 5.1, the LMR set forth in Section 5.2 or the milestones set forth in Sections 5.3, shall be credited against EARNED ROYALTIES payable under Article 6. LICENSEE shall pay the amounts payable to YALE under Sections 5.3 within ninety (90) days after the end of LICENSEE's fiscal year in which the applicable milestone is met.

5.9 Intentionally Omitted.

5.10 Any obligation to make the milestone payments to YALE pursuant to this Article 5 which was incurred by LICENSEE prior to termination of this Agreement shall survive any early termination of this Agreement except in the case that such early termination is due to material breach of this Agreement by YALE that is not cured within a sixty (60) day period after receipt of written notice thereof from LICENSEE.

ARTICLE 6. EARNED ROYALTIES; MINIMUM ROYALTY PAYMENTS

6.1 During the TERM, and subject to the following sentence, as partial consideration for the LICENSE, LICENSEE shall pay to YALE an earned royalty on worldwide cumulative NET SALES of each PRODUCT IN CLASS or LICENSED METHOD developed by LICENSEE or its SUBLICENSEES or AFFILIATES equal to [*] percent ([*]%) of such NET SALES (the "EARNED ROYALTY"). If for such a PRODUCT IN CLASS or LICENSED METHOD there

is not a VALID CLAIM in either a LICENSED PATENT or a LICENSEE PATENT, in each case claiming such PRODUCT IN CLASS or LICENSED METHOD, then the EARNED ROYALTY on such a PRODUCT IN CLASS or LICENSED METHOD shall be reduced (a "REDUCED EARNED ROYALTY"). The REDUCED EARNED ROYALTY on worldwide cumulative NET SALES of each PRODUCT IN CLASS or LICENSED METHOD developed by LICENSEE or its SUBLICENSEES or AFFILIATES shall be equal to [*] percent ([*]%) of such NET SALES from and after the date there is no such VALID CLAIM. Unless otherwise stated in this AGREEMENT, any reference to "EARNED ROYALTIES" shall refer to either or both EARNED ROYALTIES and REDUCED EARNED ROYALTIES, as the case may be. For clarity, LICENSEE'S obligation to pay EARNED ROYALTIES shall not apply to any amounts that are not related to any of the INCLUDED PRODUCT CANDIDATES.

6.2 Any obligation to pay the EARNED ROYALTIES to YALE on any PRODUCT IN CLASS or LICENSED METHOD pursuant to Article 6.1 which was incurred by LICENSEE prior to termination of this Agreement shall survive any early termination of this Agreement except in the case that such early termination is due to material breach of this Agreement by YALE.

6.3 LICENSEE shall pay all EARNED ROYALTIES accruing to YALE within thirty (30) days from the end of each calendar quarter (March 31, June 30, September 30 and December 31), beginning in the first calendar quarter in which NET SALES occur.

6.4 During the TERM, LICENSEE agrees to pay YALE annual Minimum Royalty Payments ("MRP"), commencing on the first anniversary of the ORIGINAL LICENSE AGREEMENT EFFECTIVE DATE to occur at least six (6) months after the date of the FIRST SALE of the first PRODUCT IN CLASS or first service using a LICENSED METHOD that results in NET SALES for such a first PRODUCT IN CLASS or LICENSED METHOD.

(a) If the PRODUCT IN CLASS or service using a LICENSED METHOD the FIRST SALE of which gives rise to LICENSEE's obligation to pay an MRP is a therapeutic or prophylactic PRODUCT IN CLASS or service using a LICENSED METHOD, then the MRP shall be made according to the following schedule:

Years after FIRST SALE	MRP
Year 1	$[*]
Year 2	$[*]
Years 3-5	$[*]
Year 6 and every year thereafter	$[*]

(b) If the PRODUCT IN CLASS or service using a LICENSED METHOD the FIRST SALE of which gives rise to LICENSEE's obligation to pay an MRP is a diagnostic PRODUCT IN CLASS or service using a LICENSED METHOD, then the MRP shall be made according to the following schedule:

Years after FIRST SALE	MRP
Year 1	$[*]
Year 2	$[*]
Years 3-5	$[*]

Year 6 and every year thereafter	$[*]

(c) Once the LICENSEE has made a FIRST SALE of both a therapeutic or prophylactic PRODUCT IN CLASS or a service using a LICENSED METHOD and a diagnostic PRODUCT IN CLASS or service using a LICENSED METHOD, then thereafter MRP shall be the sum of the amounts indicated in Sections 6.3(a) and 6.3(b). If the FIRST SALE of a PRODUCT IN CLASS or service using a LICENSED METHOD is both a therapeutic or prophylactic and a diagnostic and such therapeutic or prophylactic PRODUCT IN CLASS or service using a LICENSED METHOD is, or is intended to be, marketed and sold separate from such diagnostic PRODUCT IN CLASS or service using a LICENSED METHOD, as the case may be, and such diagnostic PRODUCT IN CLASS or service using a LICENSED METHOD is, or is intended to be, marketed and sold for a use other than determining the suitability of the use of such therapeutic or prophylactic PRODUCT IN CLASS or service using a LICENSED METHOD in particular patients, then thereafter MRP shall be the sum of the amounts indicated in Sections 6.3(a) and 6.3(b).

(d) Once the MRP commences, LICENSEE shall continue to pay the MRP for PRODUCTS IN CLASS or services using LICENSED METHODS until the end of the TERM, subject to Section 6.3(e). YALE shall fully credit MRP paid against any EARNED ROYALTIES payable by LICENSEE in the same year.

(e) If at any time after the MRP commences all PRODUCTS IN CLASS and services using a LICENSED METHOD for which a FIRST SALE has occurred are temporarily or permanently removed from the market and there is no longer any PRODUCT IN CLASS or service using a LICENSED METHOD subject to EARNED ROYALTY under the terms of this AGREEMENT, then the MRP due under Section 6.3 shall be suspended and LICENSEE shall resume payment of the applicable LMR under Section 5.2. The payment of LMR as so resumed shall continue until such time as marketing of any removed PRODUCT IN CLASS or service using a LICENSED METHOD has resumed or LICENSEE shall have made a FIRST SALE of another PRODUCT IN CLASS or service using a LICENSED METHOD, subject to suspension of the MRP through subsequent operation of this Section 6.3(e). MRP that is suspended or resumed and LMR that arises by reason of this Section 6.3(e), in any such case for a period of less than 12 months, shall be prorated.

(f) If at any time the applicable rate of EARNED ROYALTIES for all PRODUCTS IN CLASS and services using any LICENSED METHOD shall become the REDUCED EARNED ROYALTY, then the applicable MRP shall thereafter be [*] percent ([*]%) of the applicable amount from the above schedules, prorated for any period of less than 12 months.

6.5 All EARNED ROYALTIES and other payments due under this AGREEMENT shall be paid to YALE in United States Dollars. In the event that conversion from foreign currency is required in calculating a payment under this AGREEMENT, the exchange rate used shall be the Interbank rate quoted by Citibank, N.A. at the end of the last business day of the quarter in which the royalty was earned. If overdue, the EARNED ROYALTIES and any other payments due under this AGREEMENT shall bear interest until payment at a per annum rate equal to [*], and YALE shall be entitled to recover reasonable attorneys' fees and costs related to the collection of overdue

EARNED ROYALTIES or other overdue amounts payable by LICENSEE under this AGREEMENT, following such failure to pay. The payment of such interest shall not foreclose YALE from exercising any other right it may have as a consequence of the failure of LICENSEE to make any payment when due.

ARTICLE 7. DUE DILIGENCE

7.1 LICENSEE has designed a plan for pre-clinical and clinical development of one or more PRODUCTS IN CLASS by use of the TECHNOLOGY, which plan (i) includes a description of research and development, testing, government approval and manufacturing of PRODUCTS IN CLASS and/or LICENSED METHODS and (ii) after completion of a PIVOTAL TRIAL for a PRODUCT IN CLASS and/or LICENSED METHODS, will additionally include a description of the plan for the marketing and sale or lease of such PRODUCTS IN CLASS and/or LICENSED METHODS (as such plan may be supplemented or modified from time to time pursuant to Section 7.3, the "PLAN"). A copy of the PLAN as of the EFFECTIVE DATE is attached to this AGREEMENT as Appendix B and incorporated herein by reference.

7.2 LICENSEE shall use REASONABLE COMMERCIAL EFFORTS to pursue development and commercialization of one or more PRODUCTS IN CLASS and LICENSED METHODS. The efforts of AFFILIATES and SUBLICENSEES shall be considered LICENSEE efforts for purposes of determining whether LICENSEE is using REASONABLE COMMERCIAL EFFORTS as required by this Section 7.2. For avoidance of doubt LICENSEE shall not be obliged to pursue development and commercialization of all PRODUCTS IN CLASS or any LICENSED METHODS.

7.3 No later than one hundred twenty (120) days after the end of each calendar year during the TERM, LICENSEE shall provide to YALE a written report describing LICENSEE's, SUBLICENSEE's, and/or AFFILIATE's activities and progress on research and development, regulatory approvals, manufacturing, sublicensing, marketing and sales, as applicable, of one or more PRODUCTS IN CLASS or LICENSED METHODS during such year and indicating LICENSEE's progress and problems to date in implementing the PLAN during such year. If during the course of the year covered by such report LICENSEE, SUBLICENSEE or AFFILIATE shall have been involved in REASONABLE COMMERCIAL EFFORTS for more than one actual or proposed PRODUCT IN CLASS or LICENSED METHOD, such report for such year shall provide the information set forth above for each such actual or proposed PRODUCT IN CLASS or LICENSED METHOD. If progress or developments differ from those anticipated in the PLAN, as supplemented by prior reports LICENSEE has provided pursuant to this Section 7.3, then in such report LICENSEE shall identify in reasonable detail the principal differences, state the reasons for the differences and set forth a modified research, development, regulatory approval, manufacturing, sublicensing, marketing and sales plan. Such report shall also include a forecast and schedule of major events required to market the PRODUCTS IN CLASS or LICENSED METHODS under development during such year. Such report shall also include the aggregate MINIMUM DIRECT COSTS actually incurred to the end of the most recent calendar year preceding such report. LICENSEE shall also promptly provide any reasonable additional data that YALE by written notice to LICENSEE requests in order to evaluate LICENSEE's exercise of REASONABLE COMMERCIAL EFFORTS during such year. Within thirty (30) days following any assignment by LICENSEE pursuant to Section 17.6, the assignee shall provide YALE with an

updated and revised copy of the PLAN.

7.4 LICENSEE shall immediately notify YALE if at any time LICENSEE

(a) abandons or suspends, or determines to abandon or suspend, its research, development and marketing of the PRODUCTS IN CLASS and LICENSED METHODS, (b) fails to comply with its due diligence obligations under this Article for a period exceeding ninety (90) days, or (c) abandons or suspends, or determines to abandon or suspend, its clinical research, development or marketing of a particular PRODUCT IN CLASS or a particular LICENSED METHOD.

The parties acknowledge that LICENSEE has notified YALE that LICENSEE has discontinued development of CDX-3379 in August 2020.

7.5 LICENSEE shall during the TERM incur costs (including external costs and reasonably attributable internal costs) towards research, clinical development, regulatory approvals, manufacturing, intellectual property filings or maintenance fees, or marketing of one or more PRODUCT IN CLASS and/or LICENSED METHODS ("MINIMUM DIRECT COSTS") according to the following schedule:

Period from ORIGINAL LICENSE AGREEMENT EFFECTIVE DATE to end of	Cumulative MINIMUM DIRECT COSTS
Year 5	$15,000,000
Year 8	$25,000,000

In determining the amount of such costs that LICENSEE has incurred, costs of LICENSEE shall be calculated on an accrual basis, consistent with the GAAP used in the preparation of LICENSEE's financial statements furnished to YALE pursuant to Section 9.3, and amounts paid by LICENSEE as RESEARCH SUPPORT of the RESEARCH PROGRAM and such documented costs incurred by SUBLICENSEES and/or AFFILIATES towards a PRODUCT IN CLASS or a LICENSED METHOD shall all be considered costs incurred by LICENSEE. YALE acknowledges that as of the EFFECTIVE DATE, LICENSEE has incurred cumulative MINIMUM DIRECT COSTS in excess of the amounts required under this Section 7.5.

ARTICLE 8. CONFIDENTIALITY AND PUBLICITY

8.1 Subject to the parties' rights and obligations pursuant to this AGREEMENT, YALE and LICENSEE agree that during the TERM and for five (5) years thereafter, each of them:

(a) will keep confidential and will cause their AFFILIATES and, in the case of LICENSEE, require its SUBLICENSEES to agree in writing with LICENSEE, to keep confidential, CONFIDENTIAL INFORMATION disclosed to it by the other party, by taking whatever action the party receiving the CONFIDENTIAL INFORMATION would take to preserve the confidentiality of its own CONFIDENTIAL INFORMATION, which in no event shall be less than reasonable care; and

(b) will only disclose that part of the other's CONFIDENTIAL INFORMATION to its officers, employees or agents that is necessary for those officers, employees or agents who need to know to carry out its responsibilities under this AGREEMENT; and

(c) will not use the other party's CONFIDENTIAL INFORMATION other than as expressly set forth in this AGREEMENT or disclose the other's CONFIDENTIAL INFORMATION to any third parties under any circumstance without advance written permission from the other party; and

(d) will, within sixty (60) days of termination of this AGREEMENT, return all the CONFIDENTIAL NFORMATION disclosed to it by the other party pursuant to this AGREEMENT except for one copy which may be retained by the recipient for monitoring compliance with this Article 8.

8.2 The obligations of confidentiality described above shall not pertain to that part of the CONFIDENTIAL INFORMATION that:

(a) was known to the recipient prior to the disclosure by the disclosing party; or

(b) is at the time of disclosure or has become thereafter publicly known through no fault or omission attributable to the recipient; or

(c) is rightfully given to the recipient from sources independent of the disclosing party; or

(d) is independently developed by the receiving party without use of or reference to the CONFIDENTIAL INFORMATION of the other party; or

(e) is required to be disclosed by law in the opinion of recipient's attorney, but only after the disclosing party is given prompt written notice and an opportunity to seek a protective order; or

(f) is provided under the RESEARCH AGREEMENT (which CONFIDENTIAL INFORMATION shall be governed by the provisions of the RESEARCH AGREEMENT governing confidential information).

8.3 Except as required by law, neither party may disclose the financial terms of this AGREEMENT without the prior written consent of the other party, except that LICENSEE may disclose such terms to persons who agree in writing with LICENSEE to keep such information confidential.

ARTICLE 9. REPORTS, RECORDS AND INSPECTIONS

9.1 LICENSEE shall, within thirty (30) days after the calendar year in which NET SALES first occur, and within thirty (30) days after each calendar quarter (March 31, June 30, September 30 and December 31) thereafter, provide YALE with a written report detailing the NET

SALES and uses, if any, made by LICENSEE, its SUBLICENSEES and AFFILIATES of LICENSED PRODUCTS and LICENSED METHODS during the preceding calendar quarter and calculating the payments due pursuant to Article 6. NET SALES of PRODUCTS IN CLASS or LICENSED METHODS shall be deemed to have occurred as determined in accordance with the GAAP used in the preparation of the financial statement furnished by LICENSEE to YALE pursuant to Section 9.3. Each such report shall be signed by an officer of LICENSEE (or the officer's designee), and must include:

(a) the number of PRODUCTS IN CLASS manufactured, sold, leased or otherwise transferred or disposed of, and the amount of LICENSED METHODS sold, by LICENSEE, SUBLICENSEES and AFFILIATES;

(b) a calculation of NET SALES for the applicable reporting period in each country, including the gross invoice prices charged for the PRODUCTS IN CLASS and LICENSED METHODS and any permitted deductions made pursuant to Section 2.42;

(c) a calculation of total royalties or other payment due, including any exchange rates used for conversion; and

(d) names and addresses of all SUBLICENSEES and the type and amount of any SUBLICENSE INCOME received from each SUBLICENSEE.

9.2 LICENSEE and its SUBLICENSEES shall keep and maintain complete and accurate records and books containing an accurate accounting of all data in sufficient detail to enable verification of EARNED ROYALTIES and other payments under this AGREEMENT. LICENSEE shall preserve such books and records for three (3) years after the calendar year to which they pertain. Such books and records shall be open to inspection by YALE or an independent certified public accountant selected by YALE, at YALE's expense, during normal business hours upon ten (10) days' prior written notice, for the purpose of verifying the accuracy of the reports and computations rendered by LICENSEE. In the event LICENSEE underpaid the amounts due to YALE with respect to the audited period by more than five percent (5%), LICENSEE shall pay the reasonable cost of such examination, together with the deficiency not previously paid, within thirty (30) days of receiving notice thereof from YALE.

9.3 INTENTIONALLY OMITTED

ARTICLE 10. PATENT PROTECTION

10.1 LICENSEE shall be responsible for all past, present and future costs of filing, prosecution and maintenance of all United States patent applications contained in the LICENSED PATENTS. The LICENSED PATENTS shall remain the property of YALE subject to the terms of this Agreement.

10.2 LICENSEE shall be responsible for all past, present and future costs of filing, prosecution and maintenance of all foreign patent applications, and patents contained in the LICENSED PATENTS in the countries outside the United States in the LICENSED TERRITORY selected by YALE and agreed to by LICENSEE. All such applications or patents shall remain the property of YALE.

10.3 If LICENSEE does not agree to pay the expenses of filing, prosecuting or maintaining a patent application or patent in any country outside the United States, or fails to pay the expenses of filing, prosecuting or maintaining a patent application or patent in the United States, then subject to compliance with Section 13.1, the LICENSE with respect to such patent application or patent shall terminate with respect to that country.

10.4 The costs mentioned in Sections 10.2 and 10.3 shall include, but are not limited to, any past, present and future taxes, annuities, working fees, maintenance fees, renewal and extension charges. Payment of such costs for shall be made, at YALE's option, either directly to patent counsel or by reimbursement to YALE. In either case, LICENSEE shall make payment directly to the appropriate party within thirty (30) days of receiving its invoice. If LICENSEE fails to make payment to YALE or patent counsel, as appropriate, within the thirty (30) day period, LICENSEE shall be charged a five percent (5%) surcharge on the invoiced amount per month or fraction thereof or such other amount (higher or lower) as may be charged by patent counsel. Failure of LICENSEE to pay the surcharge shall be grounds for termination by YALE under Section 13.1 as and to the extent the same constitutes a TERMINATION EVENT. For the avoidance of doubt and notwithstanding anything herein to the contrary, YALE shall be responsible for all costs related to the past, present and future filing, prosecution, maintenance and defense of the KLOTHO PATENTS and LICENSEE shall have no obligation under this Agreement for any of the costs related thereto.

10.5 All patent applications under the LICENSED PATENTS shall be prepared, prosecuted, filed and maintained by independent patent counsel chosen by YALE and reasonably acceptable to LICENSEE. Said independent patent counsel shall be ultimately responsible to YALE. LICENSEE shall have the right to retain, at its own expense, separate patent counsel to advise LICENSEE regarding such patent matters. YALE shall instruct its patent counsel to keep YALE, LICENSEE and LICENSEE's patent counsel, if any, fully informed of the progress of all patent applications and patents, and to give both YALE and LICENSEE reasonable opportunity to comment on the type and scope of useful claims and the nature of supporting disclosures and other matters in the course of patent prosecution and maintenance. YALE will not finally abandon any patent application for which LICENSEE is bearing expenses without LICENSEE's written consent. In making its decisions regarding patent matters YALE shall (1) give due regard to the advice of its patent counsel, (2) instruct its patent counsel to consider any advice offered by LICENSEE's patent counsel, if any, and (3) conduct such preparation, prosecution and maintenance of patent applications and patents in a manner that is commercially reasonable and with a view to assisting LICENSEE in complying with its obligations under this AGREEMENT and to facilitate LICENSEE's ability to commercialize PRODUCTS IN CLASS and/or LICENSED METHODS for which royalties will be payable by LICENSEE under Section 6.1. YALE shall have no liability to LICENSEE for damages, whether direct, indirect or incidental, consequential or otherwise, allegedly arising from its good faith decisions, actions and omissions taken in compliance with this AGREEMENT in connection with such patent prosecution.

10.6 LICENSEE shall mark, and shall require SUBLICENSEES to mark, all LICENSED PRODUCTS with the numbers of all patents included in LICENSED PATENTS that cover the PRODUCTS IN CLASS. Without limiting the foregoing, all PRODUCTS IN CLASS shall be marked in such a manner as to conform with the patent marking notices required by the law of any country where such PRODUCTS IN CLASS are made, sold, used or shipped, including,

but not limited to, the applicable patent laws of that country.

ARTICLE 11. INFRINGEMENT AND LITIGATION

11.1 Each party shall promptly notify the other in writing in the event that it obtains knowledge of infringing activity by third parties, or is sued or threatened with an infringement suit, in any country in the LICENSED TERRITORY as a result of activities that concern the TECHNOLOGY and shall supply the other party with documentation of the infringing activities that it possesses.

11.2 During the TERM:

(a) LICENSEE shall have the first right in its sole discretion, but not any obligation to (i) defend its or its SUBLICENSEE's use of the TECHNOLOGY against infringement or interference claims in the LICENSED TERRITORY by third parties and (ii) take action (including legal action) against third parties who may infringe the LICENSED PATENTS or otherwise misappropriate the LICENSED KNOW-HOW, LICENSED METHODS or LICENSED MATERIALS. This right includes bringing any legal action for infringement and defending any counter claim of invalidity or action of a third party for declaratory judgment for non-infringement or non-interference. If, in the reasonable opinion of both LICENSEE's and YALE's respective counsel, YALE is required to be a named party to any such suit for standing purposes, LICENSEE may join YALE as a party; provided, however, that (i) YALE shall not be the first named party in any such action, (ii) the pleadings and any public statements about the action shall state that the action is being pursued by LICENSEE and that LICENSEE has joined YALE as a party; and (iii) LICENSEE shall keep YALE reasonably apprised of all developments in any such action. LICENSEE may settle such suits solely in its own name and solely at its own expense and through counsel of its own selection; provided, however, that no settlement shall be entered without YALE's prior written consent, which shall not be unreasonably withheld. LICENSEE shall bear the expense of such legal actions. Except for providing reasonable assistance, at the request and expense of LICENSEE, YALE shall have no obligation regarding the legal actions described in this Section unless required to participate by law. However, YALE shall have the right to participate in any such action through its own counsel and at its own expense. Any recovery shall first be applied to LICENSEE's out-of-pocket expenses and second shall be applied to YALE's out-of-pocket expenses, including legal fees. Thereafter, any remaining amount of such recovery by LICENSEE up to the amount of compensatory damages recovered by LICENSEE shall be retained by LICENSEE, but if related to a PRODUCT IN CLASS or LICENSED METHOD shall be deemed, to the extent so related, NET SALES of a PRODUCT IN CLASS or LICENSED METHOD, as the case may be, during the calendar quarter in which such recovery is actually paid to LICENSEE, and shall be subject to payment by LICENSEE of an EARNED ROYALTY thereon pursuant to Section 6.1. LICENSEE shall pay YALE [*] percent ([*]%) of the amount, if any, of any such recovery by LICENSEE related to a PRODUCT IN CLASS or LICENSED METHOD which amount is in excess of (i) LICENSEE's and YALE's out-ofpocket expenses as aforesaid and (ii) the amount of such compensatory damages as aforesaid. LICENSEE shall make such payment to YALE within thirty (30) days after the end of the calendar quarter in which LICENSEE actually receives the amount giving rise to such payment to YALE.

(b) Promptly after LICENSEE (a) receives notification from YALE of infringement by a third party or (b) otherwise first becomes aware of an infringement by a third party, whichever is earlier, LICENSEE shall investigate such infringement and take other steps, including, without limitation, contacting the person believed to be infringing, to determine the nature and extent of any such infringement and, if LICENSEE determines that such infringement is occurring, notify such infringing person to cease. If such infringement shall nonetheless continue, then LICENSEE shall proceed in a timely manner in accordance with Section 11.2(a). If LICENSEE shall fail to take such action or commence such legal action, as the case may be, within sixty (60) days after such demand by YALE, then YALE shall have the right to take such action or to initiate such legal action, as the case may be, at its own expense. If YALE initiates such legal action YALE may use the name of LICENSEE as party plaintiff to uphold the LICENSED PATENTS. In such case, LICENSEE shall provide reasonable assistance to YALE if requested to do so. YALE may settle such actions solely through its own counsel. Any recovery shall be retained by YALE. In case YALE initiates such legal action in accordance with this Section 11.2(6), then YALE may terminate the LICENSE in the country where such legal action is taken.

11.3 In the event LICENSEE is permanently enjoined from exercising its LICENSE under this AGREEMENT pursuant to an infringement action brought by a third party, or if both LICENSEE and YALE elect not to undertake the defense or settlement of a suit alleging infringement for a period of six (6) months from notice of such suit, then either party shall have the right to terminate the LICENSE in the country where the suit was filed with respect to the allegedly infringing LICENSED PATENT following thirty (30) days' written notice to the other party in accordance with the terms of Article 15.

11.4 If LICENSEE, AFFILIATE, and/or SUBLICENSEE challenge a VALID CLAIM of a LICENSED PATENT or challenge a claim by YALE that a product is a PRODUCT IN CLASS (each a "CHALLENGE"), then LICENSEE, AFFILIATE, and/or SUBLICENSEE shall pay or continue to pay all amounts due under this AGREEMENT during the pendency of such CHALLENGE, whether or not any of such amounts is in dispute in such CHALLENGE.

ARTICLE 12. USE OF YALE'S NAME

LICENSEE shall not use the name "Yale" or "Yale University," nor any variation or adaptation thereof, nor any trademark, trade name or other designation owned by YALE, nor the names of any of its trustees, officers, faculty, students, employees or agents, for any purpose without the prior written consent of YALE in each instance, except (a) that LICENSEE may disclose the terms of this AGREEMENT, the activities of the parties hereunder, and the TECHNOLOGY to its stockholders, potential investors and consultants who are subject to obligations to LICENSEE to keep such information confidential, where such confidentiality obligations are substantially similar to the obligations of LICENSEE to YALE hereunder and (b) as required by applicable law.

ARTICLE 13. TERMINATION

13.1 YALE shall have the right to terminate the LICENSE upon written notice to

LICENSEE in the event a TERMINATION EVENT shall have occurred and be continuing; provided, however, that any termination by reason of a TERMINATION EVENT (other than a TERMINATION EVENT described in Section 2.67(a)) shall be made in accordance with Section 13.4.

13.2 The LICENSE shall terminate automatically without any notice to LICENSEE in the event LICENSEE shall cease to carry on its business for a period of thirty (30) consecutive days or becomes INSOLVENT, or a petition in bankruptcy is filed against LICENSEE and is consented to, acquiesced in or fails to be dismissed within one hundred twenty (120) days, or LICENSEE makes a general assignment for the benefit of creditors, or a receiver is appointed for LICENSEE.

13.3 LICENSEE shall have the right to terminate the LICENSE upon written notice to YALE:

(a) at any time on six (6) months' notice to YALE, provided LICENSEE is not in breach of the AGREEMENT in any material respect and upon payment of all amounts due YALE through the effective date of termination; or

(b) in the event YALE commits a material breach of any of the provisions of this AGREEMENT and such breach is not cured (if capable of being cured) within the sixty (60) day period after receipt of written notice thereof from LICENSEE which notice shall identify such breach in reasonable detail, or upon receipt of such notice if such breach is not capable of being cured.

13.4 Subject to Section 13.1, if YALE believes that a TERMINATION EVENT (other than a TERMINATION EVENT described in Section 2.67(a)) shall have occurred and be continuing, then such matter shall be resolved in accordance with this Section 13.4.

(a) If YALE believes such a TERMINATION EVENT shall have occurred and be continuing and wishes to obtain additional information from LICENSEE to assess whether such a TERMINATION EVENT shall have occurred and be continuing, then YALE may so notify LICENSEE and request such information as YALE may specify in such notice to assist YALE in determining whether such a TERMINATION EVENT shall have occurred and be continuing (each a "TERMINATION EVENT INFORMATION NOTICE"). LICENSEE shall respond to such TERMINATION EVENT INFORMATION NOTICE within thirty (30) days and in such response shall provide such information as YALE shall have requested and which LICENSEE has in its possession or may obtain without unreasonable effort or expense.

(b) If either (1) notwithstanding LICENSEE having provided such additional information, YALE continues to believe such a TERMINATION EVENT shall have occurred and be continuing or (2) YALE believes such a TERMINATION EVENT shall have occurred and be continuing and does not wish to obtain additional information from LICENSEE under Section 13.4(a), then in either such case in the preceding clause (1) or (2) YALE may give notice to LICENSEE stating that YALE believes that such a TERMINATION EVENT shall have occurred and be continuing and setting forth in reasonable detail the basis for YALE's belief that such a TERMINATION EVENT shall have occurred and be continuing (each a

"TERMINATION EVENT NOTICE"). Within thirty (30) days after LICENSEE receives a TERMINATION EVENT NOTICE, LICENSEE shall provide YALE such information as LICENSEE believes establishes the absence of such a TERMINATION EVENT having occurred and be continuing.

(c) YALE shall give a TERMINATION EVENT INFORMATION NOTICE (or if YALE determines not to give a TERMINATION EVENT INFORMATION NOTICE, then a TERMINATION EVENT NOTICE) within ninety (90) days after (1) the cure period, in the case of such a notice relating to Section 2.67(b), (2) YALE first learns of the event, in the case of such a notice relating to Section 2.67(c) or 2.67(e), (3) LICENSEE's notice to YALE, in the case of such a notice relating to Section 2.67(d), or (4) it receives LICENSEE's annual progress report, in the case of such a notice relating to Section 7.2 or 7.5, or the due date for LICENSEE's annual progress report, in case LICENSEE fails to provide any such report when due. If YALE gives a TERMINATION EVENT INFORMATION NOTICE, then it shall give any TERMINATION EVENT NOTICE relating thereto within 60 days after giving such TERMINATION EVENT INFORMATION NOTICE.

(d) Within sixty (60) days after LICENSEE receives a TERMINATION EVENT NOTICE, YALE and LICENSEE shall meet at YALE's campus in New Haven, Connecticut to discuss and seek to resolve the matter. If, after such meeting the parties are unable to resolve such matter, then the Managing Director of YALE's Office of Cooperative Research, or the Managing Director's designee, and the Chairman of the Board, the Chief Executive Officer or the President or another designee of LICENSEE shall meet at YALE's campus in New Haven, Connecticut and seek to resolve such matter.

(e) if, after following the procedures specified in this Section 13.4 with respect to an alleged TERMINATION EVENT of the type covered by this Section 13.4, the parties are unable to resolve the matter and YALE continues to believe that such a TERMINATION EVENT has occurred and is continuing, then YALE shall so notify LICENSEE within thirty (30) days after conclusion of the meetings provided for in Section 13.4(d). Such notice shall specify in reasonable detail the TERMINATION EVENT(S) alleged to have occurred and be continuing. After YALE gives such notice, the parties shall submit the dispute to JAMS or another such mutually agreed upon alternative dispute resolution provider experienced in business dispute mediation (an "ADR") for non-binding mediation. The parties will cooperate with ADR and with one another in selecting a mediator from ADR's panel of neutrals, and in promptly scheduling the mediation proceedings. The parties covenant that they will participate in the mediation in good faith, and that they will share ADR costs equally. All offers, promises, conduct and statements, whether oral or written, made in the course of the mediation by any of the parties, their agents, employees, experts and attorneys, and by the mediator or any ADR employees, are confidential, privileged and inadmissible for any purpose, including impeachment, in any arbitration or other proceeding involving the parties, provided that evidence that is otherwise admissible or discoverable shall not be rendered inadmissible or non-discoverable as a result of its use in the mediation. If the dispute is not resolved within ninety (90) days from the date of the submission of the dispute to mediation (or such later date as the parties may mutually agree in writing), then if such TERMINATION EVENT shall be continuing YALE shall have the right to terminate the LICENSE by giving fifteen (15) days' notice to LICENSEE, which notice shall specify in reasonable detail the particular TERMINATION EVENT(S) (the "TERMINATION

NOTICE"). The mediation may continue, if the parties so agree, after YALE gives the TERMINATION NOTICE. The pendency of a mediation shall not preclude a party from seeking provisional remedies in connection with this AGREEMENT or such dispute from a court of competent jurisdiction, and the parties agree not to defend against any application for provisional relief on the ground that a mediation is pending.

(f) Either party shall have the right to seek declaratory relief relating to this AGREEMENT in a court of competent jurisdiction.

13.5 Upon termination of the LICENSE, for any reason, all rights and licenses granted to LICENSEE under the terms of this AGREEMENT shall terminate except as provided below in this Section 13.5 and in Section 13.9. In case of any termination of the LICENSE, each sublicense that LICENSEE shall have entered into in compliance with this AGREEMENT shall become a direct license by YALE to the applicable SUBLICENSEE, so long as at the time of such termination of the LICENSE such SUBLICENSEE shall be in compliance in all material respects with the terms of its sublicense; provided, however that (1) YALE shall not be liable for any breach or default under such sublicense by LICENSEE and (2) in no event shall YALE have any obligation or liability under such sublicense that it did not have to LICENSEE under this AGREEMENT prior to termination of the LICENSE. Upon such termination, LICENSEE shall cease to manufacture or sell PRODUCTS IN CLASS and cease to practice LICENSED METHODS, except that (1) LICENSEE may complete the manufacture of quantities of PRODUCTS IN CLASS which were work-in-process on the date of such termination and (2) LICENSEE may, for up to one hundred eighty (180) days after the date of such termination, sell any inventory of PRODUCTS IN CLASS that existed on the date of such termination or which were completed as permitted by the immediately preceding clause (1). Within sixty (60) days of the effective date of termination LICENSEE shall:

(a) Provide to YALE the last report required under Section 9.1; and

(b) Make all payments arising under this AGREEMENT up to the effective date of termination.

13.6 Termination of the LICENSE shall not affect any rights or obligations accrued prior to the effective date of such termination and specifically LICENSEE's obligation to pay all royalties and other payments specified by Article 5 and 6 for NET SALES to the date of termination, or as provided pursuant to Articles 5.9 and 6.2 in the case of any early termination. The parties agree that claims giving rise to indemnification may arise after the TERM or termination of the LICENSE granted herein.

13.7 The rights provided in this Article 13 shall be in addition and without prejudice to any other rights which the parties may have with respect to any default or breach of the provisions of this AGREEMENT.

13.8 Waiver by either party of one or more defaults or breaches shall not deprive such party of the right to terminate because of any subsequent default or breach.

(a) Upon termination of the LICENSE for any reason other than breach by YALE, the TECHNOLOGY that may no longer be practiced upon termination of the LICENSE

or termination of the LICENSE with respect to a particular PRODUCT IN CLASS or LICENSED METHOD that LICENSEE has chosen to abandon, as the case may be, shall be a "RETURNED TECHNOLOGY". LICENSEE shall permit YALE and its future licensees of the RETURNED TECHNOLOGY to utilize, reference and otherwise have the benefit of all regulatory approvals of, or clinical trials or other studies conducted by or on behalf of LICENSEE on, and all filings made by or on behalf of LICENSEE with regulatory agencies with respect to, RETURNED TECHNOLOGY. In addition, at YALE's request and subject to Section 13.5, LICENSEE shall, at YALE's sole cost and expense, deliver to YALE copies of records held by or on behalf of LICENSEE that are required by regulatory authorities to be maintained with respect to the sale, storage, handling, shipping and use of the RETURNED TECHNOLOGY, copies of all reimbursement approval files held by LICENSEE, and copies of all documents, data and information held by or on behalf of LICENSEE that are related to clinical trials and other studies by or on behalf of LICENSEE of RETURNED TECHNOLOGIES, all of which are collectively the "RETURNED MATERIALS". YALE agrees that, subject to the provisions of Article 8, LICENSEE may retain one copy thereof to the extent LICENSEE is required by law to maintain such copy. If LICENSEE so returns the RETURNED TECHNOLOGY and the RETURNED MATERIALS within six (6) months after YALE's request, then in total consideration for the provision of the RETURNED TECHNOLOGY and the RETURNED MATERIALS, YALE shall from time to time pay to LICENSEE [*] percent ([*]%) of all revenue or other financial consideration YALE receives from any new license of the RETURNED TECHNOLOGY and the RETURNED MATERIALS, other than revenue or other consideration that is research support. YALE shall pay such amounts to LICENSEE within ninety (90) days after YALE receives such revenue. The Parties rights and obligations related to the return of the KLOTHO PATENTS and KLOTHO TECHNOLOGY shall be governed by the KLOTHO RETURNED TECHNOLOGY AGREEMENT.

13.9 Upon expiration of the TERM or upon termination of the LICENSE, LICENSEE shall have a non-exclusive, fully paid-up, perpetual license to LICENSED KNOW-HOW to make, have made, use, sell, have sold, import or export any PRODUCT, method, procedure, service or process in the LICENSED TERRITORY.

ARTICLE 14. INDEMNIFICATION; INSURANCE; NO WARRANTIES

14.1 LICENSEE shall defend, indemnify and hold harmless YALE, its trustees, directors, officers, employees, and agents and their respective successors, heirs and permitted assigns (the "INDEMNIFIED PERSONS") against any and all liabilities, claims, demands, damages, judgments, losses and expenses of any nature, including, without limitation, reasonable legal expenses and attorneys' fees (collectively "CLAIMS"), (1) arising out of any theory of liability (including, without limitation, tort, warranty, or strict liability) or the death, personal injury, or illness of any person or out of damage to any property related in any way to the rights granted under this AGREEMENT; or (2) resulting from the production, manufacture, sale, use, lease, or other disposition or consumption or advertisement of the PRODUCTS IN CLASS or LICENSED METHODS by LICENSEE, its AFFILIATES, SUBLICENSEES or any other transferees; or (3) in connection with any statement, representation or warranty of LICENSEE, its AFFILIATES, SUBLICENSEES or any other transferees with respect to the LICENSED PRODUCTS or LICENSED METHODS. Each INDEMNIFIED PERSON shall notify LICENSEE promptly after such INDEMNIFIED PERSON learns of a CLAIM or threatened

CLAIM for which indemnity may be sought under this Section 14.1. The LICENSEE shall have the right to assume the defense of any legal action for which indemnity may be sought under this Section 14.1. LICENSEE shall not be responsible for indemnity with regard to any CLAIM that is settled without LICENSEE's prior written consent. Notwithstanding any provision of this AGREEMENT to the contrary, no INDEMNIFIED PERSON shall be entitled to indemnity hereunder for any CLAIM arising out of or relating to such INDEMNIFIED PERSON's participation in any clinical trial involving any PRODUCT IN CLASS or such INDEMNIFIED PERSON's use of a PRODUCT IN CLASS as a patient.

14.2 LICENSEE shall purchase and maintain in effect and shall require its SUBLICENSEES to purchase and maintain in effect a policy of commercial, general liability insurance to protect YALE with respect to events described in Section 14.1. Such insurance shall:

(a) list "YALE, its trustees, directors, officers, employees and agents" as additional insureds under the policy;

(b) provide that such policy is primary and not excess or contributory with regard to other insurance YALE may have;

(c) be endorsed to include product liability coverage in amounts no less than Five Million Dollars ($5,000,000.00) per incident and Five Million Dollars ($5,000,000) annual aggregate; and

(d) be endorsed to include contractual liability coverage for LICENSEE's indemnification under Section 14.1; and

(e) by virtue of the minimum amount of insurance coverage required under Section 14.2(c), not be construed to create a limit of LICENSEE's liability with respect to its indemnification under Section 14.1.

14.3 By signing this AGREEMENT, LICENSEE certifies that the requirements of Section 14.2 will be met on or before the earlier of (a) the date of FIRST SALE of any PRODUCT IN CLASS or LICENSED METHOD or (b) the date any PRODUCT IN CLASS, or LICENSED METHOD is tested or used on humans, and will continue to be met thereafter. Notwithstanding anything to the contrary, LICENSEE and any SUBLICENSEE may satisfy the requirements of Section 14.2 through a program of self-insurance. Except in the case of self-insurance: (a) upon YALE's request, LICENSEE shall furnish a Certificate of Insurance and a copy of the current Insurance Policy to YALE and (b) LICENSEE shall give thirty (30) days' written notice to YALE prior to any cancellation of or material change to the policy.

14.4 (a) YALE MAKES NO, AND EXPRESSLY DISCLAIMS ALL, REPRESENTATIONS OR WARRANTIES THAT ANY CLAIMS OF THE LICENSED PATENTS, ISSUED OR PENDING, ARE VALID, OR THAT THE MANUFACTURE, USE, SALE OR OTHER DISPOSAL OF THE PRODUCTS IN CLASS, OR PRACTICE OF THE LICENSED METHODS, DOES NOT OR WILL NOT INFRINGE UPON ANY PATENT OR OTHER RIGHTS NOT VESTED IN YALE.

(b) EXCEPT AS OTHERWISE SPECIFICALLY PROVIDED IN THIS

AGREEMENT, YALE MAKES NO, AND EXPRESSLY DISCLAIMS ALL, REPRESENTATIONS AND WARRANTIES WHATSOEVER WITH RESPECT TO THE LICENSED PATENTS, PRODUCTS IN CLASS AND LICENSED METHODS, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. LICENSEE SHALL MAKE NO STATEMENTS, REPRESENTATION OR WARRANTIES WHATSOEVER TO ANY THIRD PARTIES WHICH ARE INCONSISTENT WITH SUCH DISCLAIMER BY YALE. IN NO EVENT SHALL YALE, OR ITS TRUSTEES, DIRECTORS, OFFICERS, EMPLOYEES AND AFFILIATES, BE LIABLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES OF ANY KIND, INCLUDING ECONOMIC DAMAGE OR INJURY TO PROPERTY AND LOST PROFITS, REGARDLESS OF WHETHER YALE SHALL BE ADVISED, SHALL HAVE OTHER REASON TO KNOW, OR IN FACT SHALL KNOW OF THE POSSIBILITY OF THE FOREGOING. IN NO EVENT SHALL YALE, OR ITS TRUSTEES, DIRECTORS, OFFICERS, EMPLOYEES AND AFFILIATES, BE LIABLE FOR DAMAGES IN EXCESS OF AMOUNTS YALE HAS RECEIVED FROM LICENSEE UNDER THIS LICENSE.

ARTICLE 15. NOTICES, PAYMENTS

15.1 Any payment, notice or other communication required by this AGREEMENT (a) shall be in writing, (b) may be delivered personally or sent by reputable overnight courier with written verification of receipt or by registered or certified first class United States Mail, postage prepaid, return receipt requested, (c) shall be sent to the following addresses or to such other address as such party shall designate by written notice to the other party, and (d) shall be effective upon receipt:

FOR YALE:
Managing Director
YALE UNIVERSITY
Office of Cooperative Research
433 Temple Street
New Haven, Connecticut 06511

FOR LICENSEE:
Chief Executive Officer
Celldex Therapeutics, Inc.
53 Frontage Road, Suite 220
Hampton, NJ 08827

With a copy to:
General Counsel
Celldex Therapeutics, Inc.
53 Frontage Road, SUITE 220
Hampton NJ 08827

ARTICLE 16. LAWS, FORUM AND REGULATIONS

16.1 Any matter arising out of or related to this AGREEMENT shall be governed by and in accordance with the substantive laws of the State of Connecticut, without regard to its conflicts of law principles, except where the federal laws of the United States are applicable and have precedence. Any dispute arising out of or related to this AGREEMENT shall be brought in a court of competent jurisdiction in the State of Connecticut.

16.2 LICENSEE shall comply, and shall cause its AFFILIATES to comply and require its SUBLICENSEES to comply, with all foreign and United States federal, state, and local laws, regulations, rules and orders applicable to the testing, production, transportation, packaging, labeling, export, sale and use of the PRODUCTS IN CLASS and practice of the LICENSED METHODS. In particular, LICENSEE shall be responsible for assuring compliance with all United States export laws and regulations applicable to this LICENSE and LICENSEE's activities under this AGREEMENT.

ARTICLE 17. MISCELLANEOUS

17.1 This AGREEMENT shall be binding upon and inure to the benefit of the parties and their respective legal representatives, successors and permitted assigns.

17.2 This AGREEMENT constitutes the entire agreement of the parties relating to the LICENSED PATENTS, PRODUCTS IN CLASS and LICENSED METHODS, and all prior representations, agreements and understandings, written or oral, are merged into it and are superseded by this AGREEMENT. This AGREEMENT supersedes the THIRD AMENDED AND RESTATED LICENSE AGREEMENT in its entirety and, as of the FOURTH AMENDMENT EFFECTIVE DATE, the THIRD AMENDED AND RESTATED LICENSE AGREEMENT shall be of no further force and effect; *provided*, *however*, that any obligations to either party accrued by the other party prior to the FOURTH AMENDMENT EFFECTIVE DATE under the THIRD AMENDED AND RESTATED LICENSE AGREEMENT shall remain as such (subject to Section 17.12 below). For avoidance of doubt and notwithstanding anything stated in this AGREEMENT (or in the ORIGINAL LICENSE AGREEMENT, FIRST AMENDED AND RESTATED LICENSE AGREEMENT, SECOND AMENDED AND RESTATED LICENSE AGREEMENT or the THIRD AMENDED AND RESTATED LICENSE AGREEMENT), no payments or other consideration of any kind whatsoever shall be due at any time from LICENSEE or its AFFILIATES or SUBLICENSEES in respect of any PRODUCT or LICENSED METHOD of any kind (whenever LICENSEE or its AFFILIATES or SUBLICENSEES may have commenced work on, worked on, or acquired or in-licensed such PRODUCT or LICENSED METHOD) expect solely and exclusively in respect of the INCLUDED PRODUCT CANDIDATES defined herein.

17.3 The provisions of this AGREEMENT shall be deemed separable. If any part of this AGREEMENT is rendered void, invalid, or unenforceable, such determination shall not affect the validity or enforceability of the remainder of this AGREEMENT unless the part or parts which are void, invalid or unenforceable shall substantially impair the value of the entire AGREEMENT as to either party.

17.4 Articles, paragraph and section headings are inserted for convenience of reference only and do not form a part of this AGREEMENT.

17.5 No person not a party to this AGREEMENT, including any employee of any party to this AGREEMENT, shall have or acquire any rights by reason of this AGREEMENT. Nothing contained in this AGREEMENT shall be deemed to constitute the parties partners with each other or any third party.

17.6 This AGREEMENT may not be amended or modified except by written agreement executed by each of the parties. This AGREEMENT is personal to LICENSEE and shall not be assigned by LICENSEE without the prior written consent of YALE; *provided, however,* that no such consent of YALE shall be required in case of any assignment of this AGREEMENT by LICENSEE in connection with a merger, consolidation, sale or other transfer of all or substantially all of LICENSEE's assets or any similar business combination or reorganization so long as the assignee shall expressly assume in writing LICENSEE's obligations under this AGREEMENT; *provided further, however,* that in case of any such action or transaction described in the immediately preceding proviso, if the same constitutes a CHANGE OF CONTROL nothing in this Section 17.6 shall remove such transaction from Section 5.4 or 5.7. Sublicenses shall not be deemed a sale or other transfer of assets by LICENSEE governed by this Section 17.6, but instead shall be governed by Article 4 and, in respect of milestone royalties by Sections 5.5 and 5.8. Any attempted assignment in contravention of this Section 17.6 shall be null and void and shall constitute a material breach of this AGREEMENT.

17.7 LICENSEE, or any SUBLICENSEE or assignee, will not create, assume or permit to exist any lien, pledge, security interest or other encumbrance on this AGREEMENT or any sublicense.

17.8 The failure of any party hereto to enforce at any time, or for any period of time, any provision of this AGREEMENT shall not be construed as a waiver of either such provision or of the right of such party thereafter to enforce each and every provision of this AGREEMENT.

17.9 This AGREEMENT may be executed in any number of counterparts and any party may execute any such counterpart, each of which when executed and delivered shall be deemed to be an original and all of which counterparts taken together shall constitute but one and the same instrument.

17.10 Neither YALE nor LICENSEE shall be liable to perform its obligations as required by this AGREEMENT, or shall be in default of its obligations under this AGREEMENT, to the extent such failure to perform or default is caused by any reason beyond such party's control, including, without limitation, any of the following: labor disturbances or disputes of any kind, accidents, failure of any required governmental approval, civil disorders, acts of aggression, acts of God, energy or other conservation measures, failure of utilities, delays or defaults by common carrier, mechanical breakdowns, material shortages, disease, or similar occurrences. In case of any such reason beyond a party's control, the time for performance of such party's obligations affected thereby shall be extended by the period of the event or circumstance constituting such reason and for a reasonable period of time thereafter.

17.11 YALE has provided LICENSEE with the Yale University Patent Policy in effect as of the FOURTH AMENDMENT EFFECTIVE DATE, a copy of which is attached hereto as Appendix E. As described in the recitals to this AGREEMENT, as of the FOURTH AMENDMENT EFFECTIVE DATE, SCHLESSINGER serves on the LICENSEE Scientific Advisory Board. LICENSEE agrees that, for so long as SCHLESSINGER is an employee of YALE, LICENSEE's rights to any INVENTIONS of SCHLESSINGER created other than in his capacity as a YALE employee shall be subject to the attached Yale University Patent Policy, and that any agreement, past or future, between SCHLESSINGER and LICENSEE regarding

INVENTIONS of SCHLESSINGER shall be construed in accordance therewith.

17.12 YALE hereby unconditionally releases and forever discharges LICENSEE, its AFFILIATES, directors, officers, employees, agents, attorneys and representatives and the respective successors, predecessors and assigns of all of the foregoing (collectively, the "RELEASED PARTIES") of, from and with respect to any and all past causes of action, charges, claims, costs, counterclaims, covenants, damages including claims for compensatory, exemplary or punitive damages, expenses, fees including attorneys' fees, interest, and any and all patent filing, prosecution or maintenance costs related to the RETURNED TECHNOLOGY or any KLOTHO PATENTS or any other patent filing, prosecution or maintenance costs which do not relate to the LICENSED PATENTS hereunder, (y) milestone payments under the Henlius sublicense under the THIRD AMENDED AND RESTATED LICENSE AGREEMENT, and (z) omissions under LICENSED PATENTS or KOLLTAN PATENTS as defined under the THIRD AMENDED AND RESTATED LICENSE AGREEMENT and defined as LICENSEE PATENTS herein, which (x), (y) and (z) represent all issues to YALE's knowledge as of the Effective Date (collectively, the " RELEASED CLAIMS") that YALE or anyone else claiming through or under YALE ever had, either singly or jointly with others, against the RELEASED PARTIES or any of them under this Agreement from the beginning of the world until the Effective Date. YALE also agrees that it shall forever refrain and forbear from commencing, instituting or prosecuting any lawsuit, action or other proceeding, whether judicial, administrative or otherwise, or otherwise attempting to collect or enforce, any of the foregoing RELEASED CLAIMS against any of the RELEASED PARTIES. Should YALE, in violation of this Agreement, make any additional demands or claims, or institute any further judicial or non-judicial proceeding against any of the RELEASED PARTIES related to the RELEASED CLAIMS, YALE shall indemnify and hold harmless the RELEASED PARTIES from and against any related loss, liability, expenses, fees (including, but not limited to, reasonable attorneys' fees), and damages incurred by the RELEASED PARTIES.

[signature page follows]

IN WITNESS to their agreement, the parties have caused this AGREEMENT to be executed in duplicate originals by their duly authorized representatives.

YALE UNIVERSITY	CELLDEX THERAPEUTICS, INC.
By: /s/ Josh Geballe	By: /s/ Anthony Marucci
Print Name: Josh Geballe	Print Name: Anthony Marucci
Title: Senior Associate Provost	Title: President and CEO
Date: 7/26/2022	Date: 7/26/2022

TENTH AMENDMENT TO LEASE

This TENTH AMENDMENT TO LEASE (this "**Amendment**") is made as of the 1st day of August, 2022, (the "**Effective Date**") by and between **UNIVERSITY OF MASSACHUSETTS DARTMOUTH**, an institution of Higher Education of the Commonwealth of Massachusetts, with an address of 285 Old Westport Rd. North Dartmouth Massachusetts 02747 ("**Landlord**") and **CELLDEX THERAPEUTICS, IN**C. (formerly AVANT Immunotherapeutics, Inc.), a Delaware corporation, with an address of 53 Frontage Road, Hampton NJ 08827 ("**Tenant**").

RECITALS

WHEREAS, Tenant and the Massachusetts Development Finance Agency ("MDFA") entered into a certain Lease dated effective December 22, 2003 (the "Lease), as amended by that certain First Amendment to Lease dated as of March 17, 2005 (the "**First Amendment**"), that certain Second Amendment to Lease dated as of November 4, 2005 (the "**Second Amendment**"), that certain Third Amendment To Lease dated as of December 20, 2006 (the "**Third Amendment**"), that certain Fourth Amendment to Lease dated as of July 18, 2008 (the "**Fourth Amendment**"), that certain Fifth Amendment to Lease dated as of October 3, 2008 (the "**Fifth Amendment**"), that certain Sixth Amendment to Lease dated as of August 20, 2009 (the "**Sixth Amendment**"), that certain Seventh Amendment to Lease dated June 22, 2010 (the "**Seventh Amendment**"), that certain Eight Amendment to lease dated November 15, 2015 (the "**Eight Amendment**") and that certain Ninth Amendment to lease dated, October 1, 2019 (the "**Ninth Amendment**") of certain premises consisting of approximately 33,931 rentable square feet of space (the "**Premises**") in the building (the "**Building**") located at 151 Martine Street,

Fall River, Massachusetts (the "**Property**") in the South Coast Research & Technology Park (the "**Park**"); and

WHEREAS, on June 24, 2014, MDFA conveyed all of its rights, title and interest in the Building and assigned the Lease to Landlord; and

WHEREAS, the Premises is comprised of: (i) the original premises demised by the Lease, as amended through the Third Amendment, being 11,756 rentable square feet on the second (2nd) floor of the Building, (ii) the Additional Space (as defined in the First Amendment) demised by the First Amendment, being 71 rentable square feet on the first (1st) floor of the Building, (iii) the Expansion Premises (as defined in the Second Amendment), being 2,487 rentable square feet on the second (2nd) floor of the Building; (iv) the Second Expansion Premises (as defined in the Third Amendment), being 1,853 rentable square feet on the second (2nd) floor of the Building; (v) the Substitute Third Expansion Premises (as defined in the Fifth Amendment), being 4,864 rentable square feet of space on the second floor of the Building (referred to therein as the "Third Expansion Premises"); (vi) the Fourth Expansion Premises (as defined in the Sixth Amendment), being 2,382 rentable square feet on the second (2nd) floor of the Building; (vii) the Fifth Expansion Premises (as defined in the Eight Amendment), being 5,511 rentable square feet on the second (2nd) floor of the Building, and (viii) the Sixth Expansion Premises (as defined in the Ninth Amendment), being 5,007 rentable square feet - 4,686 rentable square feet on the first (1st) floor of the building and 321 rentable square feet on the second (2nd) floor of the Building such that the "Premises Square Footage" (as stated in the Ninth Amendment) is defined to be 33,931 rentable square feet; and

WHEREAS, Landlord and Tenant have agreed to enter into this Tenth Amendment to Lease to extend the term of the Lease and to amended certain additional provisions to the Lease,

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby mutually acknowledged, Landlord and Tenant agree as follows:

1. Capitalized Terms. Unless otherwise defined herein, all capitalized terms used in this Amendment shall have the meanings ascribed to them in the Lease, and all references in the Lease to the "Lease" or "this Lease" or "herein" or "hereunder" or similar terms or to any Section thereof shall, after the Effective Date, mean the Lease, or such Section thereof, as amended by this Amendment.

2. Section 2.2. Term. Section 2.2 of the Lease shall be amended as of September 1, 2022 to read as follows:

> "Section 2.2. Term. TO HAVE AND TO HOLD for a term (the "Term") beginning on the Term Commencement Date which shall be August 1, 2022 and expiring on July 31, 2025 (the "Term Expiration Date"), unless earlier terminated as provided for in Section 2.4."

3. Section 2.3. Renewal Term. Section 2.3 of the Lease is hereby deleted in its entirety and replaced with the following provision:

> "Section 2.3. Option to Extend Term for Extension Terms. Tenant shall have two (2) separate options to extend the Lease Term for (i) one (1) two (2) year period, and (ii) an additional three (3) year period (each extension period being referred to herein as an "Extension Term") beyond the Term or the first Extension Term, as the case may be (i.e., for a total, if both options are exercised as provided herein, of five (5) successive years beyond the Term) ; provided (i) Tenant shall give notice to Landlord of its exercise of each option not less than twelve (12) months prior to the expiration of the Term or the first Extension Term, as the case may be, and (ii) no default beyond any applicable grace period in the obligations of Tenant under this Lease shall exist at the time each such notice is given. All of the terms and provisions of this Lease, as amended, shall be applicable to each Extension Term except that Tenant shall have no option to extend the Lease Term beyond the second Extension Term. Landlord and Tenant must determine the Annual Fixed Rental Rate for each remaining Extension Term at the time of each such notice, using an independent fair market rental value analysis for comparable buildings used for research and development, of similar age, quality, size, construction and appearance, with similar services and amenities, and in comparable locations within Massachusetts, but outside of the Greater-

Boston MSA , excluding therefrom any cost to renovate such space for a tenant's occupancy for advertising and lease negotiation costs, free rent or other inducements, and any other items which would normally be offered to a new tenant but which a continuing tenant would not seek. The cost of the independent analysis will be shared equally between the parties. Notwithstanding the provisions of Section 10.13 of the Lease, at the end of the Term or either Extension Term, Tenant shall be entitled to hold over within the Premises for up to three (3) months, and the Annual Fixed Rental Rate shall be one hundred and twenty-five (125%) percent of the Annual Fixed Rental Rate which was payable during the last month of the Term or either Extension Term, as the case may be, and one hundred and fifty (150%) percent thereof for the period beyond three (3) months and up to a total of six (6) months."

4. Annual Fixed Rental Rate. Section 1.1 of the Lease is amended by deleting the provisions regarding the "Annual Fixed Rental Rate" and inserting, the following language:

Annual Fixed Rental Rate:	As of August 1, 2021 and through July 31, 2023: $19.52 per rentable square foot. As of August 1, 2023 through July 31, 2025: $19.91 per rentable square foot.

5. Landlord Representation Regarding Environmental Hazards. To its knowledge, Landlord represents that there are no environmental hazards or violations of any environmental laws, regulations or ordinances in or around the Building which violations might pose a present danger to health, life or safety.

6. Non-disturbance of Tenancy. Landlord represents that it has no financing on the Building whereby Landlord's lender would be entitled to disturb the tenancy of Tenant upon a default therein Landlord. Landlord further represents that it shall not enter into any such

financing, but rather shall negotiate with any such lender so as to permit Tenant to remain in possession of the Premises on a direct rental relationship with such lender so long as Tenant is not in default of its obligations under this Lease.

7. Ratification. Except as expressly modified by this Amendment, the Lease shall remain in full force and effect, and as further modified by this Amendment, is expressly ratified and confirmed by the parties hereto. This Amendment shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns, subject to the provisions of the Lease regarding assignment and subletting.

8. Governing Law; Interpretation; and Partial Invalidity. This Amendment shall be governed and construed in accordance with the laws of the Commonwealth of Massachusetts. If any term of this Amendment, or the application thereof to any person or circumstances, shall to any extent be invalid or unenforceable, the remainder of this Amendment, or the application of such term to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term of this Amendment shall be valid and enforceable to the fullest extent permitted by law. The titles for the paragraphs are for convenience only and not to be considered in construing this Amendment. This Amendment contains all of the agreements of the parties with respect to the subject matter hereof, and supersedes all prior dealings between them with respect to such subject matter. No delay or omission on the part of either party to this Amendment in requiring performance by the other party or exercising any right hereunder shall operate as a waiver of any provision hereof or any rights hereunder, and no waiver, omission or delay in requiring performance or exercising any right hereunder on any one occasion shall be construed as a bar to or waiver of such performance or right on any future occasion.

9. Counterparts and Authority, This Amendment may be executed in multiple counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same document. Landlord and Tenant each warrant to the other that the person or persons executing this Amendment on its behalf has or have authority to do so and that such execution has fully obligated and bound such party to all terms and provisions of this Amendment.

IN WITNESS WHEREOF, the undersigned executed this Amendment as of the date and year first written above.

LANDLORD:

University Of Massachusetts Dartmouth

By: /s/ Mark Fuller
Name: Mark Fuller
Title: Chancellor

TENANT:

CELLDEX THERAPEUTICS, INC.,
By: /s/ Anthony S. Marucci
Name: Anthony S. Marucci
Title: President and CEO

Exhibit 31.1

CERTIFICATION

I, Anthony S. Marucci, certify that:

1. I have reviewed this report on Form 10-Q of Celldex 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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

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

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

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

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

Date: November 9, 2022

By: /s/ ANTHONY S. MARUCCI
Name: Anthony S. Marucci
Title: President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Sam Martin, certify that:

1. I have reviewed this report on Form 10-Q of Celldex 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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

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

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

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

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

Date: November 9, 2022

By: /s/ SAM MARTIN
Name: Sam Martin
Title: Senior Vice President and Chief Financial Officer

Exhibit 32.1

SECTION 1350 CERTIFICATIONS

Pursuant to 18 U.S.C. §1350 as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, the undersigned officers of Celldex Therapeutics, Inc. (the "Company") hereby certify that to their knowledge and in their respective capacities that the Company's quarterly report on Form 10-Q to which this certification is attached (the "Report"), fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 9, 2022

By: /s/ ANTHONY S. MARUCCI
Name: Anthony S. Marucci
Title: President and Chief Executive Officer

Date: November 9, 2022

By: /s/ SAM MARTIN
Name: Sam Martin
Title: Senior Vice President and Chief Financial Officer

This certification shall not be deemed "filed" for any purpose, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act. A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Celldex Therapeutics, Inc. and will be retained by Celldex Therapeutics, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.