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 June 30, 2022

OR

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

For the transition period from _____to_____.

Commission File Number: 001-39094

PHATHOM PHARMACEUTICALS, INC.

(Exact name of Registrant as specified in its charter)

Delaware	**82-4151574**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
100 Campus Drive, Suite 102 Florham Park, New Jersey	**07932**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (877) 742-8466

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.0001 par value per share	PHAT	Nasdaq Global Select Market

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

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

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

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

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

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

As of July 29, 2022, the registrant had 39,175,205 shares of common stock ($0.0001 par value) outstanding.

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements (unaudited)

PHATHOM PHARMACEUTICALS, INC.
Balance Sheets
(Unaudited)
(in thousands, except share and par value amounts)

	June 30, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 207,392	$ 183,259
Prepaid expenses and other current assets	1,865	3,267
Total current assets	209,257	186,526
Property, plant and equipment, net	883	650
Operating lease right-of-use assets	2,557	1,914
Other long-term assets	805	341
Total assets	$ 213,502	$ 189,431
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable (including related party amounts of $69 and $1,343, respectively)	5,758	5,150
Accrued clinical trial expenses	341	1,402
Accrued expenses (including related party amounts of $2,501 and $2,330, respectively)	13,783	11,405
Accrued interest	565	477
Operating lease liabilities, current	628	487
Total current liabilities	21,075	18,921
Long-term debt, net of discount	92,432	89,671
Revenue interest financing liability	98,103	—
Operating lease liabilities	1,392	1,183
Other long-term liabilities	7,500	7,500
Total liabilities	220,502	117,275
Commitments and contingencies (Note 4)		
Stockholders' equity:		
Preferred stock, $0.0001 par value; authorized shares — 40,000,000; no shares issued and outstanding at June 30, 2022 and December 31, 2021	—	—
Common stock, $0.0001 par value; authorized shares — 400,000,000; issued shares — 39,072,046 and 31,656,035 at June 30, 2022 and December 31, 2021, respectively; outstanding shares — 38,372,403 and 30,511,226 at June 30, 2022 and December 31, 2021, respectively	3	3
Treasury stock — 19 and 1 at June 30, 2022 and December 31, 2021, respectively	—	—
Additional paid-in capital	613,952	601,523
Accumulated deficit	(620,955)	(529,370)
Total stockholders' equity (deficit)	(7,000)	72,156
Total liabilities and stockholders' equity	$ 213,502	$ 189,431

See accompanying notes.

PHATHOM PHARMACEUTICALS, INC.
Statements of Operations and Comprehensive Loss
(Unaudited)
(in thousands, except share and per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Operating expenses:				
Research and development (includes related party amounts of $370, $905, $1,800, and $1,846, respectively)	$18,815	$21,597	$36,475	$42,178
General and administrative (includes related party amounts of $0, $0, $0, and $16, respectively)	26,548	13,722	46,794	26,725
Total operating expenses	45,363	35,319	83,269	68,903
Loss from operations	(45,363)	(35,319)	(83,269)	(68,903)
Other income (expense):				
Interest income	112	13	119	27
Interest expense	(5,667)	(1,256)	(8,426)	(2,528)
Other (expense)	(2)	10	(9)	9
Total other (expense)	(5,557)	(1,233)	(8,316)	(2,492)
Net loss and comprehensive loss	$(50,920)	$(36,552)	$(91,585)	$(71,395)
Net loss per share, basic and diluted	$(1.33)	$(1.00)	$(2.40)	$(1.96)
Weighted-average shares of common stock outstanding, basic and diluted	38,272,044	36,636,164	38,155,151	36,468,498

See accompanying notes.

PHATHOM PHARMACEUTICALS, INC.
Statements of Stockholders' Equity (deficit)
(Unaudited)
(in thousands, except share amounts)

	Common Stock		Treasury Stock	Additional Paid-in	Accumulated	Total Stockholders'
	Shares	Amount	Shares	Capital	Deficit	Equity
Balance at December 31, 2021	30,511,226	$ 3	1	$ 601,523	$ (529,370)	$ 72,156
Cashless exercise of common stock warrants	7,359,285	—	18	—	—	—
401(k) matching contribution	16,756	—	—	254	—	254
Vesting of restricted shares	222,595	—	—	—	—	—
Stock-based compensation	—	—	—	5,775	—	5,775
ESPP shares issued	39,951	—	—	515	—	515
Net loss	—	—		—	(40,665)	(40,665)
Balance at March 31, 2022	38,149,813	$ 3	19	$ 608,067	$ (570,035)	$ 38,035
Vesting of restricted shares	222,590	—	—	—	—	—
Stock-based compensation	—	—	—	5,885	—	5,885
Net loss	—	—	—	—	(50,920)	(50,920)
Balance at June 30, 2022	38,372,403	3	19	613,952	(620,955)	(7,000)

See accompanying notes.

PHATHOM PHARMACEUTICALS, INC.
Statements of Stockholders' Equity
(Unaudited)
(in thousands, except share amounts)

	Common Stock		Treasury Stock	Additional Paid-in	Accumulated	Total Stockholders'
	Shares	Amount	Shares	Capital	Deficit	Equity
Balance at December 31, 2020	28,516,010	$ 3	—	$ 579,755	$ (385,487)	$ 194,271
Issuance of common stock from exercise of stock options	36,998	—	—	412	—	412
401(k) matching contribution	8,356	—	—	323	—	323
Vesting of restricted shares	301,656	—	—	—	—	—
Stock-based compensation	—	—	—	3,818	—	3,818
ESPP shares issued	13,490	—	—	358	—	358
Net loss	—	—	—	—	(34,843)	(34,843)
Balance at March 31, 2021	28,876,510	$ 3	—	$ 584,666	$ (420,330)	$ 164,339
Issuance of common stock from exercise of stock options	8,000	—	—	104	—	104
Vesting of restricted shares	301,659	—	—	—	—	—
Stock-based compensation	—	—	—	4,237	—	4,237
Net loss	—	—	—	—	(36,552)	(36,552)
Balance at June 30, 2021	29,186,169	$ 3	—	$ 589,007	$ (456,882)	$ 132,128

See accompanying notes.

PHATHOM PHARMACEUTICALS, INC.
Statements of Cash Flows
(Unaudited)
(in thousands)

	Six Months Ended June 30,	
	2022	**2021**
Cash flows from operating activities		
Net loss	$ (91,585)	$ (71,395)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	277	256
Stock-based compensation	11,660	8,055
Issuance of PIK interest debt	1,713	—
Accrued interest on revenue interest financing liability	2,657	—
Amortization of debt discount	1,049	698
Other	874	540
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets (includes the change in related party amounts of $0, and $82, respectively)	1,402	2,203
Accounts payable and accrued expenses (includes the change in related party amounts of $(1,102), and $722, respectively)	2,865	(12,860)
Accrued clinical trial expenses	(1,061)	(5,759)
Accrued interest	88	(10)
Operating right-of-use asset and lease liabilities	(293)	50
Other long-term assets	(464)	93
Net cash used in operating activities	(70,818)	(78,129)
Cash flows from investing activities		
Cash paid for property, plant and equipment	(495)	(214)
Net cash used in investing activities	(495)	(214)
Cash flows from financing activities		
Proceeds from issuance of common stock from exercise of stock options	—	516
Net proceeds from revenue interest financing transaction	95,446	—
Net cash provided by financing activities	95,446	516
Net increase (decrease) in cash and cash equivalents	24,133	(77,827)
Cash and cash equivalents – beginning of period	183,259	287,496
Cash and cash equivalents – end of period	$ 207,392	$ 209,669
Supplemental disclosure of cash flow information		
Interest paid	$ 2,919	$ 1,833
Supplemental disclosure of noncash investing and financing activities		
Property and equipment purchases included in accounts payable and accrued liabilities	$ 16	$ 3
Operating lease liabilities arising from obtaining right-of-use assets	$ 554	$ —
Settlement of ESPP liability in common stock	$ 515	$ 358
Settlement of 401(k) liability in common stock	$ 254	$ 323

See accompanying notes.

1. Organization, Basis of Presentation and Summary of Significant Accounting Policies

Organization and Basis of Presentation

Phathom Pharmaceuticals, Inc., or the Company or Phathom, was incorporated in the state of Delaware in January 2018. The Company is a biopharmaceutical company focused on developing and commercializing novel treatments for gastrointestinal diseases. The Company's financial statements are prepared in accordance with U.S. generally accepted accounting principles, or GAAP.

Liquidity and Capital Resources

From inception to June 30, 2022, the Company has devoted substantially all of its efforts to organizing and staffing the Company, business planning, raising capital, in-licensing its initial product candidate, vonoprazan, meeting with regulatory authorities, managing the clinical trials of vonoprazan, preparing for commercialization of its initial products containing vonoprazan, and providing other general and administrative support for these operations. The Company has a limited operating history, has never generated any revenue, and the sales and income potential of its business is unproven. The Company has incurred net losses and negative cash flows from operating activities since its inception and expects to continue to incur additional net losses in the future as it continues to develop and prepares for commercialization of vonoprazan. From inception to June 30, 2022, the Company has funded its operations through the issuance of convertible promissory notes, commercial bank debt, the sale of 10,997,630 shares of common stock for net proceeds of approximately $191.5 million in its 2019 IPO, and the sale of 2,250,000 shares of common stock for net proceeds of approximately $88.6 million in its December 2020 follow-on public offering.

The accompanying financial statements have been prepared assuming the Company will continue as a going concern, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business, and do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or amounts and classification of liabilities in accordance with GAAP. Management is required to perform a two-step analysis over the Company's ability to continue as a going concern. Management must first evaluate whether there are conditions and events that raise substantial doubt about the Company's ability to continue as a going concern (Step 1). If management concludes that substantial doubt is raised, management is also required to consider whether its plans alleviate that doubt (Step 2).

Management believes that it has sufficient working capital on hand to fund operations through at least the next twelve months from the date these financial statements were issued. There can be no assurance that the Company will be successful in acquiring additional funding, if needed, that the Company's projections of its future working capital needs will prove accurate, or that any additional funding would be sufficient to continue operations in future years.

Use of Estimates

The preparation of the Company's financial statements requires it to make estimates and assumptions that impact the reported amounts of assets, liabilities and expenses and the disclosure of contingent assets and liabilities in the Company's financial statements and accompanying notes. The most significant estimates in the Company's financial statements relate to accruals for research and development expenses and the valuation of various equity instruments. Although these estimates are based on the Company's knowledge of current events and actions it may undertake in the future, actual results could differ materially from those estimates and assumptions.

Fair Value Measurements

The accounting guidance defines fair value, establishes a consistent framework for measuring fair value and expands disclosure for each major asset and liability category measured at fair value on either a recurring or non-recurring basis. Fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, the accounting guidance establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets.

Level 2: Inputs, other than the quoted prices in active markets that are observable either directly or indirectly.

Level 3: Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

The carrying amounts of the Company's financial instruments, including cash and cash equivalents, are classified within the Level 1 designation discussed above, while prepaid and other current assets, accounts payable, and accrued liabilities, approximate fair value due to their short maturities.

The Company has no financial assets measured at fair value on a recurring basis. None of the Company's non-financial assets or liabilities are recorded at fair value on a non-recurring basis. No transfers between levels have occurred during the periods presented.

Cash and Cash Equivalents

The Company considers all highly liquid investments with original maturities of three months or less when purchased to be cash equivalents. Cash and cash equivalents include cash in readily available checking accounts and money market funds.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash and cash equivalents. The Company maintains deposits in federally insured financial institutions in excess of federally insured limits. The Company has not experienced any losses in such accounts and management believes that the Company is not exposed to significant credit risk due to the financial position of the depository institutions in which those deposits are held.

Property, Plant, and Equipment, Net

Property, plant and equipment are recorded at cost, less accumulated depreciation. Depreciation expense is recognized using the straight-line method over the useful life of the asset. Computer equipment and related software are depreciated over two to three years. Furniture and fixtures are depreciated over three years. Leasehold improvements are amortized over the lesser of the lease term or the estimated useful lives of the related assets. Expenditures for repairs and maintenance of assets are charged to expense as incurred. Upon retirement or sale, the cost and related accumulated depreciation of assets disposed of are removed from the accounts and any resulting gain or loss is included in loss from operations.

Impairment of Long-Lived Assets

The Company reviews long-lived assets, including property, plant and equipment, for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. An impairment loss would be recognized when estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition are less than the carrying amount. The impairment loss, if recognized, would be based on the excess of the carrying value of the impaired asset over its respective fair value. No impairment losses have been recorded through June 30, 2022.

Leases

At the inception of a contractual arrangement, the Company determines whether the contract contains a lease by assessing whether there is an identified asset and whether the contract conveys the right to control the use of the identified asset in exchange for consideration over a period of time. If both criteria are met, the Company records the associated lease liability and corresponding right-of-use asset upon commencement of the lease using the implicit rate or a discount rate based on a credit-adjusted secured borrowing rate commensurate with the term of the lease. The Company additionally evaluates leases at their inception to determine if they are to be accounted for as an operating lease or a finance lease. A lease is accounted for as a finance lease if it meets one of the following five criteria: the lease has a purchase option that is reasonably certain of being exercised, the present value of the future cash flows is substantially all of the fair market value of the underlying asset, the lease term is for a significant portion of the remaining economic life of the underlying asset, the title to the underlying asset transfers at the end of the lease term, or if the underlying asset is of such a specialized nature that it is expected to have no alternative uses to the lessor at the end of the term. Leases that do not meet the finance lease criteria are accounted for as an operating lease. Operating lease assets represent a right to use an underlying asset for the lease term and operating lease liabilities represent an obligation to make lease payments arising from the lease. Operating lease liabilities with a term greater than one year and their corresponding right-of-use assets are recognized on the balance sheet at the commencement date of the lease based on the present value of lease payments over the expected lease term. Certain adjustments to the right-of-use asset may be required for items such as initial direct costs paid or incentives received. As the Company's leases do not typically provide an implicit rate, the Company utilizes the appropriate incremental borrowing rate, determined as the rate of interest that the Company would have to pay to borrow on a collateralized basis over a similar term and in a similar economic environment. Lease cost is recognized on a straight-line basis over the lease term and variable lease payments are recognized as operating expenses in the period in which the obligation for those payments is incurred. Variable lease payments primarily include common area maintenance, utilities, real estate taxes, insurance, and other operating costs that are passed on from the lessor in proportion to the space leased by the Company. The Company has elected the practical expedient to not separate between lease and non-lease components. In addition, the Company elected the short-term lease exception for leases with an initial term of one year or less. Consequently, such leases are not recorded on the Company's balance sheets.

Revenue Interest Financing Liability

The Company entered into a revenue interest financing agreement, or the Revenue Interest Financing Agreement, with entities managed or advised by NovaQuest Capital Management, or NQ, Sagard Holdings Manager LP, or Sagard, and Hercules Capital, Inc., or Hercules, together with NQ and Sagard, the Initial Investors, in which the Company received funds in return for royalties on net sales of products containing vonoprazan. The net proceeds received under the transaction were recognized as a long-term liability with interest expense based on an imputed effective rate derived from the expected future payments. The Company recalculates the effective interest rate each period based on the current carrying value and the revised estimated future payments. Changes in future payments from previous estimates are included in current and future financing expense.

Research and Development Expenses and Accruals

All research and development costs are expensed in the period incurred and consist primarily of salaries, payroll taxes, employee benefits, stock-based compensation charges for those individuals involved in research and development efforts, external research and development costs incurred under agreements with contract research organizations and consultants to conduct and support the Company's ongoing clinical trials of vonoprazan, and costs related to manufacturing vonoprazan for clinical trials.

The Company has entered into various research and development contracts with clinical research organizations, clinical manufacturing organizations and other companies. Payments for these activities are based on the terms of the individual agreements, which may differ from the pattern of costs incurred, and payments made in advance of or after performance are reflected in the accompanying balance sheets as prepaid expenses or accrued liabilities, respectively. The Company records accruals for estimated costs incurred for ongoing research and development activities. When evaluating the adequacy of the accrued liabilities, the Company analyzes progress of the services, including the phase or completion of events, invoices received and contracted costs. Significant judgments and estimates may be made in determining the prepaid or accrued balances at the end of any reporting period. Actual results could differ from the Company's estimates.

In-Process Research and Development

The Company evaluates whether acquired intangible assets are a business under applicable accounting standards. Additionally, the Company evaluates whether the acquired assets have a future alternative use. Intangible assets that do not have future alternative use are considered acquired in-process research and development. When the acquired in-process research and development assets are not part of a business combination, the value of the consideration paid is expensed on the acquisition date. Future costs to develop these assets are recorded to research and development expense as they are incurred.

General and Administrative Expenses

General and administrative expenses consist of salaries, stock-based compensation, facilities and third-party expenses. General and administrative expenses are associated with the activities of the executive, finance, accounting, information technology, legal, medical affairs and human resource functions.

Stock-Based Compensation

Stock-based compensation expense represents the cost of the grant date fair value of equity awards recognized over the requisite service period of the awards (generally the vesting period) on a straight-line basis with forfeitures recognized as they occur.

The Company also maintains an employee stock purchase program, or ESPP, under which it may issue shares. The Company estimates the fair value of shares that will be issued under the ESPP, and of stock options using the Black-Scholes valuation model, which requires the use of estimates. The Company recognizes stock-based compensation cost for shares that it will issue under the ESPP on a straight-line basis over the requisite service period of the award.

Income Taxes

The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in the statement of operations in the period that includes the enactment date.

The Company recognizes net deferred tax assets to the extent that the Company believes these assets are more likely than not to be realized. In making such a determination, management considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations. If management determines that the Company would be able to realize its deferred tax assets in the future in excess of their net recorded amount, management would make an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes.

The Company records uncertain tax positions on the basis of a two-step process whereby (i) management determines whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position and (ii) for those tax positions that meet the more-likely-than-not recognition threshold, management recognizes the largest amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority. The Company recognizes interest and penalties related to unrecognized tax benefits within income tax expense. Any accrued interest and penalties are included within the related tax liability.

Beginning in 2022, the Tax Cuts and Jobs Act, or TCJA, eliminates the option to deduct research and development expenditures currently and requires taxpayers to amortize domestic and foreign research and development expenditures over 5 years and 15 years, respectively. The requirement did not impact cash from operations in the current period.

Comprehensive Loss

Comprehensive loss is defined as a change in equity during a period from transactions and other events and circumstances from non-owner sources. The Company’s comprehensive loss was the same as its reported net loss for all periods presented.

Segment Reporting

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision maker in making decisions on how to allocate resources and assess performance. The Company views its operations and manages its business as one operating segment.

Net Loss Per Share

Basic net loss per share is computed by dividing the net loss by the weighted-average number of common shares outstanding for the period, without consideration for potentially dilutive securities. The Company included 7,588,000 shares of common stock under its warrant (the "Takeda Warrant") issued to Takeda Pharmaceutical Company Limited ("Takeda") in connection with a May 2019 license agreement (see Note 4) in the calculation of basic weighted-average common shares outstanding from the time it became exercisable at the Company's IPO until its exercise because the Takeda Warrant was exercisable for little consideration. As of June 30, 2022, all Takeda Warrants has been exercised and no Takeda Warrants remain exercisable. For the three and six months ended June 30, 2022, the Company has excluded weighted-average unvested shares of 800,002 and 910,828, respectively, from the weighted-average number of common shares outstanding, compared to 2,280,603 and 2,430,800, respectively for the same periods in 2021. Diluted net loss per share is computed by dividing the net loss by the weighted-average number of common shares and dilutive common stock equivalents outstanding for the period determined using the treasury-stock and if-converted methods. Dilutive common stock equivalents are comprised of unvested common stock, options and warrants. For the periods presented, there is no difference in the number of shares used to calculate basic and diluted shares outstanding as inclusion of the potentially dilutive securities (warrants, stock options, and common shares subject to repurchase) would be antidilutive.

Recently Adopted Accounting Standards

There were no recently adopted accounting standards which would have a material impact on the Company's financial statements.

Recently Issued Accounting Pronouncements

The Company assesses the adoption impacts of recently issued accounting standards by the Financial Accounting Standards Board or other standard setting bodies on the Company's financial statements as well as material updates to previous assessments, if any, from the Company's Annual Report on Form 10-K for the year ended December 31, 2021. There were no new material accounting standards issued in the first half of 2022 that impacted the Company.

2. Balance Sheet Details

Property, Plant and Equipment, net

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

	June 30, 2022	December 31, 2021
Computer equipment and software	$ 904	$ 646
Furniture and fixtures	1,023	780
Leasehold improvements	85	76
	2,012	1,502
Less: accumulated depreciation and amortization	(1,129)	(852)
Total property, plant and equipment, net	$ 883	$ 650

Depreciation expense for the three months ended June 30, 2022 and 2021 was approximately $149,000 and $131,000, respectively. Depreciation and amortization expense for the six months ended June 30, 2022 and 2021, was approximately $277,000 and $256,000, respectively. No property, plant or equipment was disposed of during the six months ended June 30, 2022 or the year ended December 31, 2021.

Accrued Expenses

Accrued expenses consist of the following (in thousands):

	June 30, 2022	December 31, 2021
Accrued research and development expenses	$ 4,314	$ 3,165
Accrued compensation expenses	5,201	6,344
Accrued professional & consulting expenses	4,229	1,855
Accrued other	39	41
Total accrued expenses	$ 13,783	$ 11,405

3. Related Party Transactions

Frazier is a principal stockholder of the Company. The Company has conducted operations within office space controlled by Frazier and Frazier allocated a portion of the costs associated with this office space to the Company. In addition, Frazier paid for various goods and services, such as employee wages, insurance and expense reimbursements and various administrative services associated with the operations of the Company and charged the Company for those expenses. As of June 30, 2022 and December 31, 2021 the Company had outstanding accounts payable and accrued expenses due to Frazier in the amount of $0, related to these shared operating expenses. For the three months ended June 30, 2022 and 2021, the Company incurred $0, respectively, of shared operating expenses. For the six months ended June 30, 2022 and 2021, the Company incurred $0 and $16,000, respectively, of shared operating expenses.

Frazier is a principal stockholder in PCI Pharma Services ("PCI"). In the third quarter of 2019, the Company engaged PCI for clinical manufacturing services. As of June 30, 2022 and December 31, 2021, the Company had $1.2 million and $1.7 million, respectively, outstanding accounts payable and accrued expenses related to these manufacturing services. For the three months ended June 30, 2022 and 2021, the Company incurred $0.1 million and $0.7 million, respectively, of expenses related to services performed by PCI. For the six months ended June 30, 2022 and 2021, the Company incurred $0.4 million and $1.6 million, respectively, of expenses related to services performed by PCI.

Takeda became a common stockholder of the Company in connection with the May 2019 license agreement (see Note 4). In conjunction with this license, Takeda provides proprietary supplies for the Company's ongoing clinical development of vonoprazan in addition to the exclusive license for the commercialization of vonoprazan in the United States, Canada and Europe. On May 5, 2020, the Company entered into a Commercial Supply Agreement, or the Commercial Supply Agreement, with Takeda, pursuant to which Takeda will supply commercial quantities of vonoprazan bulk drug product or drug substance. Pursuant to the Commercial Supply Agreement, Takeda has agreed to supply the Company with, and the Company has agreed to purchase from Takeda, certain quantities of vonoprazan bulk drug product according to approved specifications at a fixed price per batch of bulk drug product in order to commercialize vonoprazan in accordance with the Takeda License. Unless terminated earlier, the term of the Commercial Supply Agreement extends for a period of two years from the date the Company places an order for bulk drug product or drug substance for the first commercial launch of vonoprazan in any jurisdiction in the licensed territory, provided that this two-year period will expire no later than December 31, 2023. The Commercial Supply Agreement will terminate immediately upon the termination of the Takeda License in accordance with its terms. In connection with the Takeda License, the Company entered into a temporary services agreement, or the Temporary Services Agreement, with Takeda on November 24, 2020. Pursuant to the Temporary Services Agreement, Takeda agreed to provide or procure the provision of services related to the ongoing clinical development of vonoprazan. The Temporary Services Agreement will terminate immediately upon termination of the Takeda License in accordance with its terms. As of June 30, 2022 and December 31, 2021, the Company had $1.4 million and $0.9 million, respectively, in outstanding accounts payable and accrued expenses related to these agreements. For the three months ended June 30, 2022 and 2021, the Company incurred $0.2 million and $0.2 million, respectively, of expenses related to these agreements. For the six months ended June 30, 2022 and 2021, the Company incurred $1.3 million and $0.2 million, respectively, of expenses related to these agreements. The Company has no remaining minimum purchase obligation related to these agreements.

4. Commitments and Contingencies

License Agreement

On May 7, 2019, the Company entered into a license agreement with Takeda pursuant to which it was granted an exclusive license to commercialize vonoprazan fumarate in the United States, Canada and Europe, or, the Takeda License. The Company also has the right to sublicense its rights under the agreement, subject to certain conditions. The agreement will remain in effect, on a country-by-country and product-by-product basis, until the later of (i) the expiration of the last to expire valid patent claim covering vonoprazan fumarate alone or in combination with at least one other therapeutically active ingredient, (ii) the expiration of the applicable regulatory exclusivity and (iii) 15 years from the date of first commercial sale, unless earlier terminated. The Company may terminate the Takeda License upon six months' written notice. The Company and Takeda may terminate the Takeda License in the case of the other party's insolvency or material uncured breach. Takeda may terminate the Takeda License if the Company challenges, or assists in challenging, licensed patents.

In consideration of the Takeda License, the Company (i) paid Takeda $25.0 million in cash, (ii) issued Takeda 1,084,000 shares of its common stock at a fair value of $5.9 million, (iii) issued the Takeda Warrant to purchase 7,588,000 shares of its common stock at an exercise price of $0.00004613 per share at an initial fair value of $47.9 million, and (iv) issued a right to receive an additional common stock warrant, or, the Takeda Warrant Right, should Takeda's fully-diluted ownership of the Company represent less than a certain specified percentage of the fully-diluted capitalization, including shares issuable upon conversion of then outstanding convertible promissory notes, calculated immediately before the closing of the Company's IPO, with a nominal initial fair value due to the low probability of issuance. The Takeda Warrant Right expired without effect since no fair value had been allocated to it upon completion of the IPO, and no additional warrant was issued. In addition, the Company is obligated to pay Takeda up to an aggregate of $250.0 million in sales milestones upon the achievement of specified levels of product sales, and a low double-digit royalty rate on aggregate net sales of licensed products, subject to certain adjustments. The Takeda Warrant has an exercise price of $0.00004613 per share, expires on May 7, 2029 and became exercisable upon the consummation of the IPO. As of June 30, 2022, all Takeda Warrants have been exercised.

Purchase Commitments

In December 2020, the Company entered into a supply agreement with Sandoz pursuant to which Sandoz will supply commercial quantities of amoxicillin capsules and clarithromycin tablets, package these antibiotics with vonoprazan, and provide in finished convenience packs. The supply agreement commits the Company to a minimum purchase obligation of approximately $3.8 million in the first 24-month period following the launch of the final product. The Company has not incurred any expenses under the agreement during the six months ended June 30, 2022 and 2021.

Contingencies

In the event the Company becomes subject to claims or suits arising in the ordinary course of business, the Company would accrue a liability for such matters when it is probable that future expenditures will be made and such expenditures can be reasonably estimated.

5. Lease Commitments

As of June 30, 2022, the Company had operating leases for office space in both Buffalo Grove, Illinois and Florham Park, New Jersey, with remaining lease terms of 2.8 years and 3.2 years, respectively. All operating leases contain an option to extend the term for one additional five year period, which was not considered in the determination of the right-of-use asset or lease liability as the Company did not consider it reasonably certain that it would exercise such options.

The total rent expense for the three months ended June 30, 2022 and 2021 was approximately $0.2 million and $0.2 million, respectively. The total rent expense for the six months ended June 30, 2022 and 2021 was approximately $0.4 million and $0.4 million, respectively

The following table summarizes supplemental balance sheet information related to the operating leases (in thousands):

	June 30, 2022	December 31, 2021
Assets:		
Operating lease right-of-use assets	2,557	1,914
Total right-of-use assets	$ 2,557	$ 1,914
Liabilities:		
Operating lease liabilities, current	628	487
Operating lease liabilities, non-current	1,392	1,183
Total operating lease liabilities	$ 2,020	$ 1,670

As of June 30, 2022, the future minimum annual lease payments under the operating leases were as follows (in thousands):

2022	$	289
2023		734
2024		753
Thereafter		513
Total minimum lease payments	$	2,289
Less: amount representing interest		(269)
Present value of operating lease liabilities		2,020
Less: operating lease liabilities, current		(628)
Operating lease liabilities	$	1,392
Weighted-average remaining lease term (in years)		3.09
Weighted-average incremental borrowing rate		8.13%

Operating cash flows for the six months ended June 30, 2022 and 2021 included cash payments for operating leases of approximately $0.7 million and $0.3 million, respectively.

On February 8, 2022, the Company entered into an operating lease for 6,250 rentable square feet of additional office space in Florham Park, New Jersey. The lease liability and the corresponding right-of-use asset associated with this lease obligation was recorded upon the June 14, 2022 commencement date of the lease.

The Company also entered into one year leases for passenger vehicles during 2022. The Company elected the short-term lease exception for these leases and did not recognize a right-of-use asset and operating lease liability related to these leases.

6. Debt

Total debt consists of the following (in thousands):

		June 30, 2022
Long-term debt, current portion	$	—
Long-term debt, non-current portion		102,703
Unamortized debt discount		(10,271)
Total debt, net of debt discount	$	92,432

On September 17, 2021, or the Closing Date, the Company entered into a Loan and Security Agreement, or, the Loan Agreement, with Hercules Capital, Inc., in its capacity as administrative agent and collateral agent and as a lender, or, in such capacity, the Agent or Hercules, and the other financial institutions that from time to time become parties to the Loan Agreement as lenders, or, collectively, the Lenders.

The Loan Agreement provides for term loans in an aggregate principal amount of up to $200.0 million, or the Term Loan, under multiple tranches. The tranches consist of (i) a first tranche consisting of term loans in an aggregate principal amount of $100.0 million, all of which was funded to the Company on the Closing Date, or First Advance, (ii) a second tranche consisting of up to an additional $50.0 million, which became available to the Company upon achievement of the protocol-specified primary efficacy endpoints in the Company's Phase 3 trial studying vonoprazan for the healing and maintenance of healing of erosive esophagitis with acceptable safety data, such that the results support the submission of a New Drug Application, or NDA, or supplemental NDA without the need to conduct another Phase 3 study and will be available, if specified conditions are met, through December 15, 2022, (iii) a third and fourth tranches consisting of an additional total $50.0 million, which became available to the Company in May 2022 upon the achievement of (a) Food and Drug Administration, or FDA, approval of the Company's NDA for vonoprazan and amoxicillin, or its New Drug Application for vonoprazan, amoxicillin and clarithromycin, in each case for an indication relating to the treatment of *Helicobacter pylori*, or *H. pylori,* with an approved indication on the claim that is generally consistent with that sought in the Company's NDA submission; and (b) filing of the Company's NDA or supplemental NDA for vonoprazan for indications relating to the healing and maintenance of healing of erosive esophagitis.

The Company paid a $1.25 million facility charge in connection with closing of the Loan Agreement and would need to pay 0.5% of any advances made under the third and fourth tranches.

The Term Loan will mature on October 1, 2026, or the Maturity Date. The Term Loan bears (i) cash interest at a variable annual rate equal to the greater of (a) 5.50% and (b) the Prime Rate (as reported in the Wall Street Journal) plus 2.25%, or the "Interest Rate", and (ii) payment-in-kind interest at a per annum rate of interest equal to 3.35%. Phathom may make payments of interest only through October 1, 2024, which was extended to October 1, 2025, upon the achievement of the Second Performance Milestone in May 2022 prior to September 30, 2024 and met the condition that no default or event of default exists, and which is further extendable to October 1, 2026, subject to FDA approval of the Company's NDA (or supplemental NDA) for vonoprazan for an indication relating to the healing and maintenance of healing of erosive esophagitis with an approved indication on the label that is generally consistent with that sought in the Company's NDA submission (or supplemental NDA submission), or the Third Performance Milestone, on or prior to September 30, 2025 and no default or event of default exists (the "interest only period"). After the interest-only period, the principal balance and related interest will be required to be repaid in equal monthly installments and continuing until the Maturity Date.

In addition, the Company is obligated to pay a final payment fee of 7.50% of the original principal amount of amounts actually advanced under the Term Loan, or, each a Term Loan Advance and together, the Term Loan Advances. As of June 30, 2022, the aggregate final payment fee for the first Term Loan Advance of $7.5 million has been recorded as an other long-term liability.

The Company may elect to prepay all or a portion of the Term Loan Advances prior to maturity, subject to a prepayment fee of up to 1.25% of the then outstanding principal balance of the Term Loan Advances being prepaid. After repayment, no Term Loan amounts may be borrowed again.

As collateral for the obligations, the Company has granted to Hercules a senior security interest in all of Company's right, title, and interest in, to and under substantially all of Company's property, inclusive of intellectual property.

The Loan Agreement contains customary closing fees, prepayment fees and provisions, events of default, and representations, warranties and covenants, including a financial covenant requiring Phathom to maintain certain levels of cash subject to a control agreement in favor of the Agent (minus accounts payable not paid within 120 days of invoice), or Qualified Cash, and commencing on May 15, 2023, trailing three-month net product revenue from the sale of vonoprazan and products containing vonoprazan. The revenue covenant will be waived at any time in which the Company maintains Qualified Cash equal to at least 60.0% (prior to the Third Performance Milestone), and 35% (following the Third Performance Milestone) of the total outstanding Term Loan principal amount, or the Company's market capitalization is at least $900.0 million. Upon the occurrence of an event of default, subject to any specified cure periods, all amounts owed by the Company may be declared immediately due and payable by Hercules, as collateral agent. As of June 30, 2022, the Company was in compliance with all applicable covenants under the Loan Agreement.

In connection with the entry into the Loan Agreement, the Company issued to Hercules a warrant, or, the Warrant, to purchase a number of shares of the Company's common stock equal to 2.5% of the aggregate amount of the Term Loan advances funded, and will issue to Hercules additional warrants when future Term Loan advances are funded. On the Closing Date, the Company issued a Warrant for 74,782 shares of common stock. The Warrant will be exercisable for a period of seven years from the date of issuance at a per-share exercise price equal to $33.43, which was the closing price of the Company's common stock on September 16, 2021. The Warrant is exercisable any time until September 17, 2028 and had an initial fair value of approximately $1.3 million.

The initial $1.3 million fair value of the Warrant, the $7.5 million final interest payment fee and $3.1 million of debt issuance costs have been recorded as debt discount and are being amortized to interest expense using the effective interest method over the term of the Term Loan.

Future minimum principal and interest payments under the Term Loan, including the final payment fee, as of June 30, 2022 are as follows (in thousands):

Year ending December 31:		
2022	$	3,638
2023		7,510
2024		7,790
2025		30,139
2026		105,773
Total principal and interest payments		154,850
Less interest and final payment fee		(54,850)
Total term loan borrowings	$	100,000

Prior to the Loan Agreement with Hercules, the Company had a loan with Silicon Valley Bank, or SVB, and approximately $54.3 million of the proceeds from the First Advance was used to satisfy in full and retire the Company's indebtedness under the SVB Term Loan with SVB, including accrued interest through the payoff date.

During the three and six months ended June 30, 2022, the Company recognized $3.0 million and $5.8 million, respectively, of interest expense, including amortization of the debt discount, in connection with the Hercules Loan Agreement compared to $1.2 million and $2.5 million, respectively, for the same periods in 2021 in connection with the SVB Term Loan. As of June 30, 2022, the Company had outstanding loan balance of $102.7 million and accrued interest of $0.6 million.

7. Revenue Interest Financing Liability

On May 3, 2022, Phathom entered into a Revenue Interest Financing Agreement with Initial Investors NQ, Sagard, and Hercules pursuant to which the Company will receive up to $260 million in funding from the Initial Investors. Under the terms of the Revenue Interest Financing Agreement, the Company received $100 million at the initial closing and can receive an additional $160 million upon FDA approval of vonoprazan for treatment of erosive esophagitis on or before March 31, 2024. At any time prior to December 31, 2022, the Company also has the right to obtain a written commitment from a third party for up to $15 million of funding upon FDA approval of vonoprazan for erosive esophagitis. In addition, the Company has the right at any time prior to June 30, 2024, to obtain a written commitment from a third party for up to $25 million of funding upon achievement of a sales milestone. The Initial Investors have a right of first offer if the Company seeks to obtain such additional funding. The total amount funded by the Initial Investors and any subsequent investors is referred to herein as the Investment Amount.

Under the Revenue Interest Financing Agreement, the investors are entitled to receive a 10% royalty on net sales of products containing vonoprazan. The royalty rate is subject to a step-down on net sales exceeding certain annual thresholds and if the Company receives FDA approval for vonoprazan for an indication relating to the treatment of heartburn associated with symptomatic non-erosive gastroesophageal reflux disease, or NERD. The investors' right to receive royalties on net sales will terminate when the investors have aggregate payments equal to 200% of the Investment Amount. In addition, at any time after the earlier of (i) April 30, 2024 and (ii) the date that the payment for erosive esophagitis regulatory approval is made, the Company has the right to make a cap payment equal to 200% of the Investment Amount less any royalties already paid, at which time the agreement will terminate.

If the investors have not received aggregate payments of at least 100% of the Investment Amount by December 31, 2028, and at least 200% of the Investment Amount by December 31, 2037, each a Minimum Amount, then the Company will be obligated to make a cash payment to the investors in an amount sufficient to gross the investors up to the applicable Minimum Amount.

Upon the occurrence of an event of default taking place prior to April 1, 2025, between April 1, 2025, and April 1, 2028, and after April 1, 2028, the Company is obligated to pay 1.30 times Investment Amount, 1.65 times Investment Amount, and 2.0 times investment amount, respectively, less any amounts the Company previously paid pursuant to the agreement.

Upon the occurrence of a change in control event taking place prior to the earlier of April 1, 2024, or FDA approval of vonoprazan for erosive esophagitis, the Company is obligated to pay 200% of the Investment Amount plus either 15% of the Investment Amount if occurrence prior to May 3, 2023, or plus 30% of the Investment Amount if occurrence thereafter.

During the quarter ended June 30, 2022, the Company received gross proceeds of $100.0 million before deducting transaction costs of $4.6 million, which resulted in net proceeds of $95.4 million.

The Company has evaluated the terms of the Revenue Interest Financing Agreement and concluded that the features of the Investment Amount are similar to those of a debt instrument. Accordingly, the Company has accounted for the transaction as a debt obligation with interest expense based on an imputed effective rate derived from the initial carrying value of the obligation and the expected future payments. The Company recalculates the effective interest rate each period based on the current carrying value and the revised estimated future payments. Changes in future payments from previous estimates are included in the current and future financing expense. The carrying value of the revenue interest financing liability was $98.1million as of June 30, 2022.

Total revenue interest financing liability consists of the following (in thousands):

	June 30, 2022
Beginning liability balance	$ —
Proceeds from the Revenue Interest Financing Agreement	100,000
Less: transaction costs	(4,554)
Less: royalty payments and payables	-
Plus: interest expense	2,657
Ending liability balance	$ 98,103

The Company will record liabilities associated with additional funding upon FDA approval of vonoprazan for erosive esophagitis and achievement of the sales milestone when such contingent events occur. To determine the accretion of the liability related to the Revenue Interest Financing Agreement, the Company is required to estimate the total amount of future royalty payments and estimated timing of such payments based on the Company's revenue projections. As royalty payments are made, the balance of the debt obligation will be effectively repaid. Based on the Company's periodic review, the exact timing of repayment is likely to be different in each reporting period as compared to those estimated in the Company's initial revenue projections. A significant increase or decrease in actual net sales of vonoprazan compared to the Company's revenue projections could impact the interest expense associated with the revenue interest financing liability. Also, the Company's total obligation can vary depending on change in control or default events and the achievement of FDA approval of vonoprazan for erosive esophagitis and achievement of the sales milestone.

8. Stockholders' Equity

Common Stock

In March 2019, subsequent to the Merger, the Company sold 1,491,072 shares of the Company's common stock to Frazier.

In March 2019, the founders granted the Company a repurchase right for the 3,373,408 shares of common stock originally purchased in 2018. The Company has the right, but not the obligation, to repurchase unvested shares in the event the founder's relationship with the Company is terminated, subject to certain limitations, at the original purchase price of the stock. The repurchase right lapsed for 843,352 shares in March 2019 and the repurchase right for the remaining 2,530,056 shares lapses in equal monthly amounts over the following 48-month period ending in March 2023. The fair value of the founder shares at the date the repurchase right was granted is being recognized as stock-based compensation expense on a straight-line basis over the vesting period. As of June 30, 2022, 237,192 shares of common stock were subject to repurchase by the Company and the associated repurchase liability was not significant. The amount of recognized and unrecognized stock-based compensation related to the founder stock was immaterial for all periods presented.

In May 2019, the Company issued Takeda 1,084,000 shares of common stock in connection with the Takeda License.

For the period from January 1, 2019 to May 6, 2019, the Company issued 2,524,852 shares of common stock to various employees and consultants of the Company for aggregate proceeds of approximately $1,000. Upon issuance, these shares were subject to a repurchase option by the Company at the original purchase price of the shares. The repurchase rights generally lapse as to 25% of the shares on the first anniversary of the vesting commencement date, and the repurchase right lapses as to 1/48th of the shares each one-month period thereafter, subject to the purchaser remaining continuously an employee, consultant or director of the Company. In November 2019, the Company repurchased 17,560 shares at the original purchase price for an aggregate purchase price of $5.20. As of June 30, 2022, 462,432 shares remain available for repurchase by the Company and the associated repurchase liability was not significant.

On October 29, 2019, upon completion of the IPO, the Company sold 10,997,630 shares of common stock, which included the exercise in full by the underwriters of their option to purchase 1,434,473 additional shares at a public offering price of $19.00 per share. The net proceeds were approximately $191.5 million, after deducting underwriting discounts, commissions and offering costs.

In November 2020, the Company entered into an Open Market Sale Agreement℠, or, the Sales Agreement, with Jefferies LLC, or, the Sales Agent, under which it may, from time to time, sell shares of its common stock having an aggregate offering price of up to $125.0 million through the Sales Agent, or, the ATM Offering. Pursuant to the Sales Agreement, the Company will pay the Sales Agent a commission for its services in acting as an agent in the sale of common stock in an amount equal to 3% of the gross sales price per share sold. No shares were sold under the ATM Offering as of June 30, 2022.

On December 16, 2020, the Company completed an underwritten public offering, in which it sold 2,250,000 shares of its common stock at a price of $42.00 per share for total gross proceeds of $94.5 million. The net purchase price after deducting underwriting discounts and commissions was $39.48 per share, which generated net proceeds of $88.8 million. The Company incurred an additional $0.2 million of offering expenses in connection with this public offering.

A summary of the Company's unvested shares is as follows:

Balance at December 31, 2021	1,144,809
Share vesting	(445,185)
Balance at June 30, 2022	699,624

For accounting purposes, unvested shares of common stock are considered issued, but not outstanding until they vest.

Common stock reserved for future issuance consists of the following:

	June 30, 2022
Common stock warrants	91,228
Stock options, PSUs and RSUs outstanding	6,624,915
Shares available for issuance under the 2019 Incentive Plan	1,311,660
Shares available for issuance under the ESPP Plan	802,085
Balance at June 30, 2022	8,829,888

Preferred Stock

The Company is authorized to issue up to 40 million shares of preferred stock. As of June 30, 2022 and December 31, 2021, there were no shares of preferred stock issued or outstanding.

Equity Incentive Plan

The Company's 2019 Equity Incentive Plan (the "Existing Incentive Plan") provides for the grant of incentive stock options, non-statutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, and other stock awards to eligible recipients, including employees, directors or consultants of the Company. The Company had 2,231,739 shares of common stock authorized for issuance under the Existing Incentive Plan, of which, 1,400,528 stock options and 16,260 restricted stock awards were granted. As a result of the adoption of the 2019 Incentive Award Plan (the "2019 Plan") in October 2019, no further shares are available for issuance under the Existing Incentive Plan.

2019 Incentive Award Plan

In October 2019, the board of directors adopted, and the Company's stockholders approved, the 2019 Plan, which became effective in connection with the IPO. Under the 2019 Plan, the Company may grant stock options, stock appreciation rights, restricted stock, restricted stock units and other awards to individuals who are then employees, officers, non-employee directors or consultants of the Company or its subsidiaries. The number of shares initially available for issuance will be increased by (i) the number of shares subject to stock options or similar awards granted under the Existing Incentive Plan that expire or otherwise terminate without having been exercised in full after the effective date of the 2019 Plan and unvested shares issued pursuant to awards granted under the Existing Incentive Plan that are forfeited to or repurchased by the Company after the effective date of the 2019 Plan, with the maximum number of shares to be added to the 2019 Plan pursuant to clause (i) above equal to 1,416,788 shares, and (ii) an annual increase on January 1 of each calendar year beginning in 2020 and ending in 2029, equal to the lesser of (a) 5% of the shares of common stock outstanding on the final day of the immediately preceding calendar year and (b) such smaller number of shares as determined by the board of directors. As of June 30, 2022, 1,311,660 shares remain available for issuance, which reflects 2,148,734 of stock option, performance-based unit, or PSU, and restricted stock unit, or RSU, awards granted, and 104,848 of awards cancelled or forfeited, during the six months ended June 30, 2022 as well as an annual increase of 1,582,802 shares authorized on January 1, 2022.

Performance-based Units

During 2020, the Company granted the initial PSUs whereby vesting depends upon the approval by the FDA of vonoprazan for *H. pylori* and then, or concurrent with, erosive esophagitis. In 2022, the Company granted an additional 37,500 PSUs to employees. As of June 30, 2022, the PSU milestones had not been achieved and no related compensation cost had been recognized. The following table summarizes PSU activity under the 2019 Incentive Award Plan during the six months ended June 30, 2022.

	Number of Stock Units	Weighted-Average Grant Date Fair Value Per Share
Unvested balance at December 31, 2021	394,300	$ 32.23
Granted	37,500	20.06
Vested	-	-
Forfeited	(11,250)	38.14
Unvested balance at June 30, 2022	420,550	$ 30.99

As of June 30, 2022, there was approximately $13.0 million of related unrecognized compensation cost, which will begin to be recognized upon vesting.

Restricted Stock Units

During 2022, the Company granted 590,937 RSUs with vesting over time. The following table summarizes RSU activity under the 2019 Incentive Award Plan during the six months ended June 30, 2022.

	Number of Stock Units	Weighted-Average Grant Date Fair Value Per Share
Unvested balance at December 31, 2021	-	$ -
Granted	590,937	11.66
Vested	-	-
Forfeited	(4,050)	15.21
Unvested balance at June 30, 2022	586,887	$ 11.64

As of June 30, 2022, the Company had $6.0 million of unrecognized stock-based compensation expense, which is expected to be recognized over a weighted-average period of 2.1 years.

Employee Stock Purchase Plan

In October 2019, the board of directors adopted, and the Company's stockholders approved, the Employee Stock Purchase Plan, or the ESPP, which became effective in connection with the IPO. The ESPP permits participants to purchase common stock through payroll deductions of up to 20% of their eligible compensation, which includes a participant's gross base compensation for services to the Company, including overtime payments and excluding sales commissions, incentive compensation, bonuses, expense reimbursements, fringe benefits and other special payments. A total of 270,000 shares of common stock was initially reserved for issuance under the ESPP. In addition, the number of shares available for issuance under the ESPP will be annually increased on January 1 of each calendar year beginning in 2020 and ending in 2029, by an amount equal to the lesser of: (i) 1% of the shares outstanding on the final day of the immediately preceding calendar year and (ii) such smaller number of shares as is determined by the board of directors. As of June 30, 2022, 802,085 shares of common stock remain available for issuance, which includes the 39,951 shares sold to employees during the six months ended June 30, 2022.

The ESPP is considered a compensatory plan, and for the three and six months ended June 30, 2022, the Company recorded related stock-based compensation of $0.2 million and $0.3 million, respectively, compared to $0.1 million and $0.2 million, respectively, for the same periods in 2021. The weighted-average assumptions used to estimate the fair value of ESPP awards using the Black-Scholes option valuation model were as follows:

	Six Months Ended June 30,	
	2022	2021
Assumptions:		
Expected term (in years)	0.49	0.75
Expected volatility	72.41%	81.83%
Risk free interest rate	0.37%	0.10%
Dividend yield	-	-

The estimated weighted-average fair value of ESPP awards for the six months ended June 30, 2022 and 2021, were $5.31 and $15.85, respectively. As of June 30, 2022, the total unrecognized compensation expense related to the ESPP was $28,000, which is expected to be recognized over a weighted-average period of approximately 0.5 months.

401(k) Plan

The Company established a 401(k) savings plan during the year ended December 31, 2020. The Company's contributions to the plan are discretionary. During the three and six months ended June 30, 2022, the Company incurred $0.3 million and $0.9 million, respectively, of expense related to estimated employer contribution liabilities, which was based on a 75% match of employees' contributions during the periods, compared to $0.2 million and $0.6 million, respectively, for the same periods in 2021. In August 2021, the Board of Directors approved a semi-annual discretionary match for 2021, which was settled by contributing 18,394 shares. In January 2022, the Board of Directors approved a second semi-annual discretionary match for 2021, which was settled by contributing 16,756 shares.

Stock Options

The fair value of each employee and non-employee stock option grant is estimated on the date of grant using the Black-Scholes option-pricing model. The Company, prior to the IPO on October 29, 2019, was a private company and lacked company-specific historical and implied volatility information. Therefore, it estimated its expected volatility based on the historical volatility of a publicly traded set of peer companies. Due to the lack of historical exercise history, the expected term of the Company's stock options for employees was determined utilizing the "simplified" method for awards. The expected term of stock options granted to non-employees was equal to the contractual term of the option award. The risk-free interest rate was determined by reference to the U.S. Treasury yield curve in effect at the time of grant of the award for time periods approximately equal to the expected term of the award. Expected dividend yield was zero based on the fact that the Company has never paid cash dividends and does not expect to pay any cash dividends in the foreseeable future.

A summary of the Company's stock option activity and related information is as follows:

	Options Outstanding	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value (in thousands)
Balance at December 31, 2021	4,186,729	$ 27.53	8.43	$ 13,973
Options granted	1,520,297	14.76		
Options exercised and shares vested	—	—		
Options forfeited, expired or cancelled	(89,548)	32.99		
Balance at June 30, 2022	5,617,478	$ 23.99	8.34	$ 1,435
Options exercisable as of June 30, 2022	2,013,657	$ 24.74	7.57	$ 838

The estimated weighted-average fair value of employee and nonemployee director stock options granted during 2022 was $8.96 per option. As of June 30, 2022, the Company had $47.9 million of unrecognized stock-based compensation expense, which is expected to be recognized over a weighted-average period of 2.3 years.

The weighted-average assumptions used to estimate the fair value of stock options using the Black-Scholes option valuation model were as follows:

	Six Months Ended June 30,	
	2022	2021
Assumptions:		
Expected term (in years)	6.05	6.04
Expected volatility	66.04%	67.38%
Risk free interest rate	1.89%	0.64%
Dividend yield	—	—

Stock-Based Compensation Expense

Stock-based compensation expense recognized for all equity awards, including founder stock, has been reported in the statements of operations and comprehensive loss as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Research and development expense	$ 1,319	$ 1,027	$ 2,458	$ 1,886
General and administrative expense	4,566	3,210	9,202	6,169
Total	$ 5,885	$ 4,237	$ 11,660	$ 8,055

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

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with the unaudited interim financial statements and notes thereto included in this Quarterly Report on Form 10-Q and with our audited financial statements and notes thereto for the year ended December 31, 2021 and the related Management's Discussion and Analysis of Financial Condition and Results of Operations, both of which are contained in our Annual Report on Form 10-K for the year ended December 31, 2021 ("2021 Form 10-K").

Forward Looking Statements

The following discussion and other parts of this quarterly report contain forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. All statements other than statements of historical facts contained in this quarterly report, including statements regarding our future results of operations and financial position, business strategy, research and development plans and costs, the impact of COVID-19, the timing and likelihood of regulatory filings and approvals, commercialization plans, pricing and reimbursement, the potential to develop future product candidates, the timing and likelihood of success of the plans and objectives of management for future operations, and future results of anticipated product development efforts, are forward-looking statements. These statements are often identified by the use of words such as "may," "will," "expect," "believe," "anticipate," "intend," "could," "should," "estimate," or "continue," and similar expressions or variations. The forward-looking statements in this quarterly report are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, operating results, business strategy, short-term and long-term business operations and objectives. These forward-looking statements speak only as of the date of this quarterly report and are subject to a number of risks, uncertainties and assumptions, including those described in the Part II, Item 1A under the heading "Risk Factors." The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

Overview

We are a biopharmaceutical company focused on developing and commercializing novel treatments for gastrointestinal, or GI, diseases. Our initial product candidate, vonoprazan, is an oral small molecule potassium-competitive acid blocker, or P-CAB. P-CABs are a novel class of medicines that block acid secretion in the stomach. Vonoprazan has shown rapid, potent, and durable anti-secretory effects and has demonstrated clinical benefits over the current standard of care as a single agent in the treatment of gastroesophageal reflux disease, or GERD, and in combination with antibiotics for the treatment of *H. pylori*, infection. Takeda Pharmaceutical Company Limited, or Takeda, developed vonoprazan and has received marketing approval in numerous countries in Asia and Latin America as well as Russia. Vonoprazan generated approximately $850 million in net sales in its seventh full year on the market since its approval in Japan in late 2014. In May 2019, we in-licensed the U.S., European, and Canadian rights to vonoprazan from Takeda.

In 2021 we reported topline data from two pivotal Phase 3 clinical trials for vonoprazan: one for the treatment of *H. pylori* infection (PHALCON-HP), and a second for the treatment of erosive GERD (PHALCON-EE), also known as erosive esophagitis, or EE. In April 2021, we reported positive topline data from PHALCON-HP, and in October 2021, we reported positive topline data from PHALCON-EE. In September 2021, we submitted new drug applications (NDAs) for two treatment regimens containing vonoprazan for the treatment of *H.* pylori, vonoprazan triple therapy (vonoprazan, amoxicillin, clarithromycin) and vonoprazan dual therapy (vonoprazan, amoxicillin), and in November 2021, the U.S. Food and Drug Administration, or FDA, accepted both NDAs for filing, granted each of them Priority Review, and assigned us a Prescription Drug User Fee Act (PDUFA) action date in May 2022. In addition, both of our *H. pylori* NDAs received qualified infectious disease product (QIDP) designations which provides a potential extension of any regulatory exclusivity awarded following approval. On May 3, 2022, we received FDA approval for vonoprazan triple therapy, under the brand name VOQUEZNA™ TRIPLE PAK™ and vonoprazan dual therapy, under the brand name VOQUEZNA™ DUAL PAK™, in each case for the treatment of *H. pylori* infection in adults. Further, in March 2022, we submitted an NDA for the use of vonoprazan as a treatment for adults for the healing of all grades of EE and relief of heartburn, and maintenance of healing of all grades of EE and relief of heartburn, which was accepted for filing by the FDA in May 2022, with a PDUFA action date of January 11, 2023. In August 2022, we announced that, consistent with current FDA recommendations for all chemically synthesized drug compounds such as vonoprazan, we had previously initiated post-approval testing to determine whether nitrosamine impurities were present in vonoprazan drug product. These tests showed trace levels of a nitrosamine impurity that is not described within the FDA guidance document entitled "Control of Nitrosamine Impurities in Human Drugs – Guidance for Industry." We are working with the FDA and plan to obtain approval of and implement an additional test method, specification, including a proposed acceptable intake limit, and additional controls to address this impurity prior to releasing our first vonoprazan-based products to the market. These additional activities will result in a delay of the planned VOQUEZNA™ TRIPLE PAK™ and VOQUEZNA™ DUAL PAK™ full commercial launches. We currently expect full commercial launch of these products, as well as, if approved, VOQUEZNA™ tablets for EE, in the first quarter of 2023.

We have also progressed our clinical development program in NERD. In February 2022, we reported positive topline data from a Phase 2 trial studying vonoprazan for on-demand treatment of NERD, based on the positive results from this study plan to discuss with FDA a Phase 3 trial design for this novel dosing regimen. Also in February 2022, we commenced enrollment of patients in a Phase 3 trial studying vonoprazan, dosed on a once-daily basis, for the treatment of NERD with topline data for the primary endpoint expected in the first quarter of 2023 and topline results for the full trial expected in 2023. Additionally, we plan to discuss with the FDA our proposed development plan to study vonoprazan as a treatment for eosinophilic esophagitis, or EoE.

We plan to independently commercialize vonoprazan in the United States. We also plan to seek commercial partnerships for vonoprazan in Europe and Canada, expand development of vonoprazan into other indications, dosing regimens and alternative formulations and packaging, and in-license or acquire additional clinical or commercial stage product candidates for the treatment of GI diseases in a capital efficient manner.

We commenced our operations in 2018 and have devoted substantially all of our resources to date to organizing and staffing our company, business planning, raising capital, in-licensing our initial product candidate, vonoprazan, meeting with regulatory authorities, conducting our clinical trials of vonoprazan, preparing applications for regulatory approval for vonoprazan and preparing for the commercial launch. Our operations to date have been funded primarily through the issuance of convertible promissory notes, commercial bank debt, the proceeds from our initial public offering and our follow-on public offering. From our inception through June 30, 2022, we have raised aggregate gross proceeds of $90.3 million from the issuance of convertible promissory notes, $100.0 million of debt, $100,0 million of revenue interest financing liability, net proceeds from our initial public offering of $191.5 million from the sale of 10,997,630 shares of common stock, which included the exercise in full by the underwriters of their option to purchase 1,434,473 additional shares at a public offering price of $19.00 per share, after deducting underwriting discounts, commissions and offering costs, and net proceeds of $88.6 million from the sale of 2,250,000 shares of common stock at a public offering price of $39.48 per share after deducting underwriting discounts and commissions, and an additional $0.2 million in offering costs.

We have incurred net losses since our inception. Our net losses for the six-month periods ended June 30, 2022 and 2021 were $91.6 million and $71.4 million, respectively. As of June 30, 2022, we had an accumulated deficit of $621.0 million. Our net losses may fluctuate significantly from quarter-to-quarter and year-to-year, depending on the timing of our clinical development activities, other research and development activities, and pre-commercialization activities. We expect our expenses and operating losses will increase substantially as we advance vonoprazan through additional clinical trials, seek further regulatory approval for vonoprazan, expand our clinical, regulatory, quality, manufacturing and commercialization capabilities, incur significant commercialization expenses for marketing, sales, manufacturing and distribution, protect our intellectual property, expand our general and administrative support functions, including hiring additional personnel, and incur additional costs associated with operating as a public company.

We have never generated any revenue and do not expect to generate any revenues from product sales unless and until we commence commercialization of our initial approved products. Accordingly, until such time as we can generate significant revenue from sales of vonoprazan, if ever, we expect to finance our cash needs through equity offerings, our existing loan and security agreement, or the Loan Agreement, debt financings, Revenue Interest Financing Agreement or other capital sources, including potential collaborations, licenses and other similar arrangements. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all, and this risk could be exacerbated by the impact of COVID-19 on global economic conditions. Our failure to raise capital or enter into such other arrangements when needed would have a negative impact on our financial condition and could force us to delay, limit, reduce or terminate our product development or future commercialization efforts, or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

License Agreement with Takeda

On May 7, 2019, we and Takeda entered into an exclusive license, or the Takeda License, pursuant to which we in-licensed the U.S., European, and Canadian rights to vonoprazan fumarate. During the term of the Takeda License, we and our affiliates are not permitted to commercialize any pharmaceutical product, other than vonoprazan, that treats acid-related disorders, except for certain generic and OTC competing products in specified circumstances. We will be responsible at our cost for the development, manufacture and commercialization of vonoprazan products. We are required to use commercially reasonable efforts to develop and commercialize the vonoprazan products in our licensed territory.

Under the Takeda License, Takeda has the sole right and authority, with our input, to prepare, file, prosecute, and maintain all Takeda and joint patents on a worldwide basis at its own cost. We are responsible, at our cost, for preparing, filing, prosecuting, and maintaining patents on inventions made solely by us in connection with vonoprazan, subject to input from Takeda.

We paid Takeda upfront consideration consisting of a cash fee of $25.0 million, 1,084,000 shares of our common stock, a warrant to purchase 7,588,000 shares of our common stock at an exercise price of $0.00004613 per share, or the Takeda Warrant, and issued Takeda a right to receive an additional common stock warrant, or the Takeda Warrant Right, if Takeda's fully-diluted ownership of the Company represented less than a certain specified percentage of the fully-diluted capitalization, including shares issuable upon conversion of then outstanding convertible promissory notes, calculated immediately prior to the closing of our IPO. The Takeda Warrant Right expired without effect since no fair value had been allocated to it upon completion of our IPO, and no additional warrant was issued. We agreed to make milestone payments to Takeda upon achieving certain tiered aggregate annual net sales of licensed products in the United States, Europe, and Canada up to a total maximum milestone amount of $250.0 million. We also agreed to make tiered royalty payments at percentages in the low double digits on net sales of licensed products, subject to specified offsets and reductions. Royalties will be payable, on a product-by-product and country-by-country basis from the first commercial sale of such product in such country, until the latest of expiration of the licensed patents covering the applicable product, expiration of regulatory exclusivity in such country, or 15 years following first commercial sale in such country.

Components of Results of Operations

Operating Expenses

Research and Development

To date, our research and development expenses have related to the development of vonoprazan. Research and development expenses are recognized as incurred and payments made prior to the receipt of goods or services to be used in research and development are capitalized until the goods or services are received.

Research and development expenses include:

- salaries, payroll taxes, employee benefits, and stock-based compensation charges for those individuals involved in research and development efforts;
- external research and development expenses incurred under agreements with contract research organizations, or CROs, and consultants to conduct and support our ongoing clinical trials of vonoprazan; and
- costs related to the manufacturing of vonoprazan for our clinical trials as well as for qualification of future third party commercial manufacturing.

We plan to increase our research and development expenses for the foreseeable future as we continue the development of vonoprazan. We cannot determine with certainty the timing of initiation, the duration or the completion costs of current or future clinical trials and nonclinical studies of vonoprazan or any future product candidates due to the inherently unpredictable nature of clinical and preclinical development. Clinical and preclinical development timelines, the probability of success and development costs can differ materially from expectations. In addition, we cannot forecast which product candidates may be subject to future collaborations, when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements

Our future clinical development costs may vary significantly based on factors such as:

- per patient trial costs;
- the number of trials required for approval;
- the number of sites included in the trials;
- the countries in which the trials are conducted;
- the length of time required to enroll eligible patients;
- the number of patients that participate in the trials;
- the number of doses evaluated in the trials;
- the drop-out or discontinuation rates of patients;
- potential additional safety monitoring requested by regulatory agencies;
- the duration of patient participation in the trials and follow-up;
- the phase of development of the product candidate;
- the efficacy and safety profile of the product candidate; and
- delays and cost increases as a result of COVID-19.

General and Administrative

General and administrative expenses consist of salaries and employee-related costs, including stock-based compensation, for personnel in executive, finance, accounting, legal, human resources and other administrative functions, legal fees relating to intellectual property and corporate matters, and professional fees for accounting and consulting services. We anticipate that our general and administrative expenses will significantly increase in the future to support our continued research and development activities, pre-commercial preparation activities in light of the recent approvals of VOQUEZNA™ TRIPLE PAK™ and VOQUEZNA™ DUAL PAK™ to treat *H. Pylori* infection in adults and, if any future product candidate receives marketing approval, commercialization activities. We also anticipate increased expenses related to audit, legal, regulatory, and tax-related services associated with maintaining compliance with exchange listing and Securities and Exchange Commission, or SEC, requirements, director and officer insurance premiums, and investor relations costs associated with operating as a public company.

Interest Income

Interest income consists of interest on our money market fund.

Interest Expense

Beginning on May 3, 2022, interest expense includes interest on the Revenue Interest Financing Agreement, which is based on the imputed effective rate derived from expected future payments and the carrying value of the obligation. The Company recalculates the effective interest rate each period based on the current carrying value and the revised estimated future payments. Changes in future payments from previous estimates are included in current and future financing expense.

Beginning on September 17, 2021, interest expense includes interest on the Hercules Loan Agreement, which consists of (i) cash interest at a variable annual rate equal to the greater of (a) 5.50% and (b) the Prime Rate (as reported in the Wall Street Journal) plus 2.25% (the "Interest Rate"), (ii) payment-in-kind interest at a per annum rate of interest equal to 3.35%, and (iii) amortization of the Hercules Loan Agreement debt discount recorded in connection with the fair value of warrants issued to the lenders, the debt issuance costs incurred, and the obligation to make a final payment.

Prior to September 17, 2021, interest expense consisted of interest on our outstanding commercial bank debt with SVB at a variable annual rate equal to the greater of (a) 7.25% and (b) Prime Rate (as reported by the Wall Street Journal) plus 1.75% and amortization of the SVB Term Loan debt discount recorded in connection with the fair value of warrants issued to the lenders, the debt issuance costs incurred, and the obligation to make a final payment.

Results of Operations

Comparison of the Six Months Ended June 30, 2022 and 2021

The following table summarizes our results of operations for the six months ended June 30, 2022 and 2021 (in thousands):

	Six Months Ended June 30,		
	2022	2021	Change
Operating expenses:			
Research and development	$ 36,475	$ 42,178	$ (5,703)
General and administrative	46,794	26,725	20,069
Total operating expenses	83,269	68,903	14,366
Loss from operations	(83,269)	(68,903)	(14,366)
Other income (expense):			
Interest income	119	27	92
Interest expense	(8,426)	(2,528)	(5,898)
Other income (expense)	(9)	9	(18)
Total other income (expense)	(8,316)	(2,492)	(5,824)
Net loss	$ (91,585)	$ (71,395)	$ (20,190)

Research and Development Expenses. Research and development expenses were $36.5 million and $42.2 million for the six months ended June 30, 2022 and 2021, respectively. The decrease of $5.7 million consisted of a $9.0 million reduction of clinical trial cost partially offset by increases of $2.0 million of personnel-related, consulting and other research expenses, and $1.3 million of chemistry manufacturing and controls, or CMC, costs related to vonoprazan.

General and Administrative Expenses. General and administrative expenses were $46.8 million and $26.7 million for the six months ended June 30, 2022 and 2021, respectively. The increase of $20.1 million was due to increases of $11.6 million in professional services expenses for commercial, medical affairs and other services, $8.2 million in personnel-related expenses, $1.6 million in legal and other expenses, partially offset by a $1.3 million reduction in consulting fees. Due to the planned continued buildout of administrative and commercial functions we expect general and administrative expenses to increase in future periods.

Other Income (Expense). Other expense of $8.3 million for the six months ended June 30, 2022 consisted of interest expense under the Hercules Loan and Revenue Interest Financing Agreements, partially offset by interest income on deposits. Other expense of $2.5 million for the six months ended June 30, 2021 consisted of interest expense under the SVB Term Loan.

Results of Operations

Comparison of the Three Months Ended June 30, 2022 and 2021

The following table summarizes our results of operations for the three months ended June 30, 2022 and 2021 (in thousands):

	Three Months Ended June 30,		
	2022	2021	Change
Operating expenses:			
Research and development	$ 18,815	$ 21,597	$ (2,782)
General and administrative	26,548	13,722	12,826
Total operating expenses	45,363	35,319	10,044
Loss from operations	(45,363)	(35,319)	(10,044)
Other income (expense):			
Interest income	112	13	99
Interest (expense)	(5,667)	(1,256)	(4,411)
Other (expense)	(2)	10	(12)
Total other (expense)	(5,557)	(1,233)	(4,324)
Net loss	$ (50,920)	$ (36,552)	$ (14,368)

Research and Development Expenses. Research and development expenses were $18.8 million and $21.6 million for the three months ended June 30, 2022 and 2021, respectively. The decrease of $2.8 million consisted of reductions of $3.7 million of clinical trial cost and $0.4 million of consulting research expenses, partially offset by increases of $0.7 million of personnel-related costs, and $0.4 million of regulatory and other research expenses, and $0.2 million of chemistry manufacturing and controls, or CMC, costs related to vonoprazan.

General and Administrative Expenses. General and administrative expenses were $26.5 million and $13.7 million for the three months ended June 30, 2022 and 2021, respectively. The increase of $12.8 million was due to increases of $8.1 million in professional services expenses for commercial, medical affairs and other services, $4.3 million in personnel-related costs, and $0.4 million of legal expenses. Due to the planned continued buildout of administrative and commercial functions we expect general and administrative expenses to increase in future periods.

Other Income (Expense). Other expense of $5.6 million for the three months ended June 30, 2022 consisted of interest expense under the Hercules Loan and Revenue Interest Financing Agreements, partially offset by interest income on deposits. Other expense of $1.2 million for the three months ended June 30, 2021 consisted of interest expense under the SVB Term Loan.

Liquidity and Capital Resources

We have incurred net losses and negative cash flows from operations since our inception and anticipate we will continue to incur net losses for the foreseeable future. As of June 30, 2022, we had cash and cash equivalents of $207.4 million.

Loan Agreement with Hercules

On September 17, 2021, (the “Closing Date”), we entered into a Loan and Security Agreement (the “Loan Agreement”) with Hercules Capital, Inc., in its capacity as administrative agent and collateral agent and as a lender (in such capacity, the “Agent” or “Hercules”) and the other financial institutions that from time to time become parties to the Loan Agreement as lenders (collectively, the “Lenders”).

The Loan Agreement provides for term loans in an aggregate principal amount of up to $200.0 million (the "Term Loan") under multiple tranches. The tranches consist of (i) a first tranche consisting of term loans in an aggregate principal amount of $100.0 million, all of which was funded on the Closing Date (the "First Advance"), (ii) a second tranche consisting of up to an additional $50.0 million, which became available to us upon achievement of the protocol-specified primary efficacy endpoints in our Phase 3 trial studying vonoprazan for the healing and maintenance of healing of erosive esophagitis with acceptable safety data, such that the results support the submission of a New Drug Application ("NDA") or supplemental NDA without the need to conduct another Phase 3 study and will be available, if specified conditions are met, through December 15, 2022, (iii) a third and fourth tranches consisting of an additional total $50.0 million, which became available to us in May 2022 upon the achievement of (a) FDA approval of our NDA for vonoprazan and amoxicillin, or its NDA for vonoprazan, amoxicillin and clarithromycin, in each case for an indication relating to the treatment of H. pylori with an approved indication on the claim that is generally consistent with that sought in our NDA submission; and (b) filing of an NDA or supplemental NDA for vonoprazan for indications relating to the healing and maintenance of healing of erosive esophagitis. We intend to use the proceeds of the Term Loan advances for working capital and general corporate purposes. In addition, approximately $54 million of the proceeds from the First Advance was used to satisfy in full and retire our indebtedness under its previously outstanding credit facility with Silicon Valley Bank (the "SVB Term Loan").

The Term Loan will mature on October 1, 2026 (the "Maturity Date"). The Term Loan bears (i) cash interest at a variable annual rate equal to the greater of (a) 5.50% and (b) the Prime Rate (as reported in the Wall Street Journal) plus 2.25% (the "Interest Rate") and (ii) payment-in-kind interest at a per annum rate of interest equal to 3.35%. We may make payments of interest only through October 1, 2024, which was extended to October 1, 2025, upon the achievement of the Second Performance Milestone in May 2022 prior to September 30, 2024 and the condition that no default or event of default exists, and which is further extendable to October 1, 2026, subject to FDA approval of our NDA (or supplemental NDA) for vonoprazan for an indication relating to the healing and maintenance of healing of erosive esophagitis with an approved indication on the label that is generally consistent with that sought in our NDA submission (or supplemental NDA submission) (the "Third Performance Milestone") on or prior to September 30, 2025 and no default or event of default exists (the "interest only period"). After the interest-only period, the principal balance and related interest will be required to be repaid in equal monthly installments and continuing until the Maturity Date.

The Loan Agreement contains customary closing fees, prepayment fees and provisions, events of default, and representations, warranties and covenants, including a financial covenant requiring us to maintain certain levels of cash subject to a control agreement in favor of the Agent (minus accounts payable not paid within 120 days of invoice) ("Qualified Cash"), and commencing on May 15, 2023, trailing three-month net product revenue from the sale of vonoprazan and products containing vonoprazan. The revenue covenant will be waived at any time in which we maintain Qualified Cash equal to at least 60.0% (prior to the Third Performance Milestone), and 35% (following the Third Performance Milestone) of the total outstanding Term Loan principal amount, or our market capitalization is at least $900.0 million.

As collateral for the obligations, we granted to Hercules a senior security interest in all of our right, title, and interest in, to and under substantially all of our property, inclusive of intellectual property.

In connection with the entry into the Loan Agreement, we issued to Hercules a warrant (the "Warrant") to purchase a number of shares of our common stock equal to 2.5% of the aggregate amount of the Term Loan advances funded, and will issue to Hercules additional warrants when future Term Loan advances are funded. On the Closing Date, we issued a Warrant for 74,782 shares of common stock. The Warrant will be exercisable for a period of seven years from the date of issuance at a per-share exercise price equal to $33.43, which was the closing price of our common stock on September 16, 2021.

Revenue Interest Financing Agreement

On May 3, 2022, we entered into a Revenue Interest Financing Agreement with Initial Investors NQ, Sagard, and Hercules pursuant to which we will receive up to $260 million in funding from the Initial Investors. Under the terms of the Revenue Interest Financing Agreement, we received $100 million at the initial closing and can receive an additional $160 million upon FDA approval of vonoprazan for treatment of erosive esophagitis on or before March 31, 2024. We also have the right to obtain written commitments from third parties at any time prior to December 31, 2022, for up to $15 million of funding upon FDA approval of vonoprazan for erosive esophagitis and, at any time prior to June 30, 2024, for up to $25 million upon achievement of a sales milestone. The Initial Investors have a right of first offer if the Company seeks to obtain such additional funding.

Under the Revenue Interest Financing Agreement, the investors are entitled to receive a 10% royalty on net sales of products containing vonoprazan. The royalty rate is subject to a step-down on net sales exceeding certain annual thresholds and if the Company receives FDA approval for vonoprazan for an indication relating to the treatment of heartburn associated with symptomatic non-erosive gastroesophageal reflux disease, or NERD. The investors' right to receive royalties on net sales will terminate when the investors have aggregate payments equal to 200% of the Investment Amount. In addition, at any time after the earlier of (i) April 30, 2024 and (ii) the date that the payment for erosive esophagitis regulatory approval is made, we have the right to make a cap payment equal to 200% of the Investment Amount less any royalties already paid, at which time the agreement will terminate.

If the investors have not received aggregate payments of at least 100% of the Investment Amount by December 31, 2028, and at least 200% of the Investment Amount by December 31, 2037, each a Minimum Amount, then we will be obligated to make a cash payment to the investors in an amount sufficient to gross the investors up to the applicable Minimum Amount.

Upon the occurrence of an event of default taking place prior to April 1, 2025, between April 1, 2025, and April 1, 2028, and after April 1, 2028, we are obligated to pay 1.30 times Investment Amount, 1.65 times Investment Amount, and 2.0 times investment amount, respectively, less any amounts previously paid pursuant to the agreement.

Upon the occurrence of a change in control event taking place prior to the earlier of April 1, 2024, or FDA approval of vonoprazan for erosive esophagitis, we are obligated to pay 200% of the Investment Amount plus either 15% of the Investment Amount if occurrence prior to May 3, 2023, or plus 30% of the Investment Amount if occurrence thereafter.

We intend to use the proceeds received under the Revenue Interest Financing Agreement for working capital and general corporate purposes.

At-the-Market-Offering

On November 10, 2020, we entered into an Open Market Sale Agreement℠, or the Sales Agreement, with Jefferies LLC, or the Sales Agent, under which we may, from time to time, sell shares of our common stock having an aggregate offering price of up to $125.0 million through the Sales Agent, or the ATM Offering. Sales of our common stock made pursuant to the Sales Agreement, if any, will be made under our shelf registration statement on Form S-3 which was filed on November 10, 2020 and declared effective by the SEC on November 16, 2020. We are not obligated to, and we cannot provide any assurances that we will, make any sales of the shares under the Sales Agreement. The Sales Agreement may be terminated by the Sales Agent or us at any time. There were no sales of our common stock under the ATM Offering for the six-month period ended June 30, 2022.

Underwritten Public Offering

On December 16, 2020, the Company completed an underwritten public offering, in which it sold 2,250,000 shares of its common stock at a price of $42.00 per share for total gross proceeds of $94.5 million. The net purchase price after deducting underwriting discounts and commissions was $39.48 per share, which generated net proceeds of $88.8 million. We incurred an additional $0.2 million of offering expenses in connection with the public offering.

Funding Requirements

Based on our current operating plan, we believe that our existing cash and cash equivalents together with the drawdown of the remaining $100 million under our Loan Agreement with Hercules, receipt of amounts potentially available under the revenue interest financing agreement and anticipated future sales of products containing vonoprazan will be sufficient to fund our operations through 2024. We expect such amounts will allow us to complete our ongoing Phase 3 clinical trial studying vonoprazan for NERD (daily dosing), and launch vonoprazan for *H. pylori* and, if approved, erosive esophagitis. However, our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties and actual results could vary materially. We have based this estimate on assumptions that may prove to be wrong, and we could deplete our capital resources sooner than we expect. Additionally, the process of testing product candidates in clinical trials is costly, and the timing of progress and expenses in these trials is uncertain.

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

- the initiation, type, number, scope, results, costs, and timing of our clinical trials of vonoprazan and preclinical studies or clinical trials of other potential product candidates we may choose to pursue in the future, including feedback received from regulatory authorities;
- delays and cost increases as a result of COVID-19;
- the costs and timing of manufacturing for vonoprazan or any future product candidates, including commercial scale manufacturing if any product candidate is approved;
- the costs, timing and outcome of regulatory review of vonoprazan or any future product candidates;
- the costs of obtaining, maintaining, and enforcing our patents and other intellectual property rights;
- our efforts to enhance operational systems and hire additional personnel to satisfy our obligations as a public company, including enhanced internal controls over financial reporting;

- the costs associated with hiring additional personnel and consultants as our business grows, including additional executive officers and clinical development personnel;
- the timing and amount of the milestone or other payments we must make to Takeda and any future licensors;
- the costs and timing of establishing or securing sales and marketing capabilities for vonoprazan or any future product candidate;
- our ability to achieve sufficient market acceptance, coverage and adequate reimbursement from third-party payors and adequate market share and revenue for any approved products;
- patients' willingness to pay out-of-pocket for any approved products in the absence of coverage and/or adequate reimbursement from third-party payors;
- the terms and timing of establishing and maintaining collaborations, licenses, and other similar arrangements; and
- costs associated with any products or technologies that we may in-license or acquire.

Until such time, if ever, as we can generate substantial product revenues to support our cost structure, we expect to finance our cash needs through equity offerings, debt financings, or other capital sources, including potential collaborations, licenses, and other similar arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be or could be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. Debt financing and equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise funds through collaborations, or other similar arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us and/or may reduce the value of our common stock. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market our product candidates even if we would otherwise prefer to develop and market such product candidates ourselves.

Including our existing cash and cash equivalents, we believe that we have sufficient working capital on hand to fund operations such that there is no substantial doubt as to our ability to continue as a going concern at the date the financial statements were issued. There can be no assurance that we will be successful in acquiring additional funding, that our projections of future working capital needs will prove accurate, or that any additional funding would be sufficient to continue operations in future years.

Cash Flows

The following table sets forth a summary of the net cash flow activity for each of the periods indicated (in thousands):

	Six Months Ended June 30,		
	2022	2021	Change
Net cash provided by (used in):			
Operating activities	$ (70,818)	$ (78,129)	$ 7,311
Investing activities	(495)	(214)	(281)
Financing activities	95,446	516	94,930
Net increase (decrease) in cash	$ 24,133	$ (77,827)	$ 101,960

Operating Activities

Net cash used in operating activities was approximately $70.8 million and $78.1 million for the six months ended June 30, 2022 and 2021, respectively. The net cash used in operating activities for the six months ended June 30, 2022 was due to approximately $73.3 million spent on ongoing research and development and general and administrative activities, partially offset by a $2.5 million net change in operating assets and liabilities. The net change in operating assets and liabilities primarily related to a $1.6 million increase in accounts payable and accrued expenses (including clinical trial expenses), a $1.4 million decrease in prepaid assets and other current assets, partially offset by a $0.5 million increase in other long-term assets. The net cash used in operating activities for the six months ended June 30, 2021 was due to approximately $61.8 million spent on ongoing research and development and general and administrative activities and a $16.3 million net change in operating assets and liabilities. The net change in operating assets and liabilities primarily related to a $18.6 million decrease in accounts payable and accrued expenses (including clinical trial expenses), partially offset by a $2.2 million decrease in prepaid assets and a $0.1 million decrease in other long-term assets.

Investing Activities

Net cash used in investing activities for the six months ended June 30, 2022 and 2021, was primarily due to the cash we paid for acquiring property, plant and equipment.

Financing Activities

Net cash provided by financing activities for the six months ended June 30, 2022 was due to the net proceeds from the revenue interest financing liability. Net cash provided by financing activities for the six months ended June 30, 2021 was due to issuance of common stock from exercise of stock options.

Contractual Obligations and Commitments

Other than disclosed below, there were no material changes outside the ordinary course of our business during the six months ended June 30, 2022 to the information regarding our contractual obligations that was disclosed in Management's Discussion and Analysis of Financial Condition and Results of Operations contained in our 2021 Form 10-K.

Critical Accounting Policies and Significant Judgments and Estimates

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

For a description of our critical accounting policies, please see the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations — Critical Accounting Policies and Significant Judgments and Estimates" contained in our 2021 Form 10-K. There have not been any material changes to the critical accounting policies discussed therein during the six months ended June 30, 2022.

Other Company Information

JOBS Act

As an emerging growth company under the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, we can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. We intend to rely on other exemptions provided by the JOBS Act, including without limitation, not being required to comply with the auditor attestation requirements of Section 404(b) of Sarbanes-Oxley.

We will remain an emerging growth company until the earliest of (i) the last day of the fiscal year following the fifth anniversary of the consummation of our IPO, (ii) the last day of the fiscal year in which we have total annual gross revenue of at least $1.07 billion, (iii) the last day of the fiscal year in which we are deemed to be a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such year, or (iv) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period.

Recent Accounting Pronouncements

The information required by this item is included in Note 1, Organization, Basis of Presentation and Summary of Significant Accounting Policies included in Part 1, Item 1 of this quarterly report.

Off-Balance Sheet Arrangements

During the periods presented we did not have, nor do we currently have, any off-balance sheet arrangements as defined under SEC rules.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

As of June 30, 2022, there have been no material changes surrounding our market risk, including interest rate risk, foreign currency exchange risk, and inflation risk, from the discussion provided in "Management's Discussion and Analysis of Financial Condition and Results of Operations – Quantitative and Qualitative Disclosures About Market Risk" of our 2021 Form 10-K.

Item 4. Controls and Procedures

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our periodic and current reports that we file with the SEC is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable and not absolute assurance of achieving the desired control objectives. In reaching a reasonable level of assurance, management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. In addition, the design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, control may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act as of the end of the period covered by this quarterly report. Based on such evaluation, our principal executive officer and principal financial officer have concluded that as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting during the six months ended June 30, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

We are not currently subject to any material legal proceedings. From time to time, we may be involved in legal proceedings or subject to claims incident to the ordinary course of business. Regardless of the outcome, such proceedings or claims can have an adverse impact on us because of defense and settlement costs, diversion of resources and other factors, and there can be no assurances that favorable outcomes will be obtained.

Item 1A. Risk Factors

There have been no material changes to the risk factors disclosed in Part I, Item 1A, "Risk Factors" of our 2021 Form 10-K, other than as set forth below.

We currently depend entirely on the success of vonoprazan, which is our only approved product and product candidate. If we are unable to successfully launch and commercialize vonoprazan, obtain additional, required regulatory approvals and advance the clinical development of vonoprazan in additional indications, or experience significant delays in doing so, our business will be materially harmed.

We currently have two approved products and one product candidate, all of which contain vonoprazan, which we in-licensed from Takeda. Our current business depends entirely on our ability to successfully develop, obtain regulatory approval for, and commercialize products containing vonoprazan in a timely manner. This may make an investment in our company riskier than similar companies that have multiple approved products or product candidates in active development that may be able to better sustain failure of a single product. In May 2022, we received FDA approval for vonoprazan triple therapy, under the brand name VOQUEZNA™ TRIPLE PAK™ and vonoprazan dual therapy, under the brand name VOQUEZNA™ DUAL PAK™, in each case for the treatment of *H. pylori* infection in adults. Further, in March 2022, we submitted an NDA for the use of vonoprazan as a treatment for adults for the healing of all grades of EE and relief of heartburn, and maintenance of healing of all grades of EE and relief of heartburn, which was accepted for filing by the FDA in May 2022, with a PDUFA action date of January 11, 2023. In February 2022, we initiated a Phase 3 trial for vonoprazan using a daily dosing regimen for the treatment of NERD, with topline data for the primary endpoint expected in the first quarter of 2023 and topline results for the full trial expected in 2023. Our assumptions about vonoprazan's commercial potential are based in large part on the commercial experience of vonoprazan in Japan. However, our assumptions may prove to be wrong, and we may encounter a materially and adversely different development and commercial experience. The success of vonoprazan will depend on several factors, including the following:

- acceptance by the FDA or by comparable foreign regulatory authorities of our proposed design of our clinical trials;
- successful enrollment in clinical trials and completion of clinical trials with favorable results;
- the willingness of the FDA, the European Medicines Agency, or EMA, and other comparable foreign regulatory authorities to accept the data from the clinical trials and preclinical studies and clinical trials conducted outside of our licensed territories by Takeda and independent investigators as part of the basis for review and approval of vonoprazan;
- demonstrating safety and efficacy to the satisfaction of applicable regulatory authorities;
- the outcome, timing and cost of meeting regulatory requirements established by the FDA, EMA, and other comparable foreign regulatory authorities;
- receipt of marketing approvals from applicable regulatory authorities, including one or more NDAs from the FDA and maintaining such approvals;
- making and/or maintaining arrangements with Takeda, Catalent, Sandoz, or any future third-party manufacturers for, or establishing, commercial manufacturing capabilities and receiving/importing commercial supplies approved by FDA and other regulators from Takeda, Catalent or any future third-party manufacturer;
- establishing sales, marketing and distribution capabilities and commercializing vonoprazan, if approved, whether alone or in collaboration with others;
- establishment and maintenance of patent and trade secret protection or regulatory exclusivity for vonoprazan;
- maintaining an acceptable safety profile of vonoprazan following approval; and

• maintaining and growing an organization of people who can develop and, if approved, commercialize, market, and sell vonoprazan to physicians, patients, healthcare payors, and others in the medical community.

In August 2022, we announced that, consistent with current FDA recommendations for all chemically synthesized drug compounds such as vonoprazan, we previously initiated post-approval testing to determine whether nitrosamine impurities were present in vonoprazan drug product. These tests showed trace levels of a nitrosamine impurity that is not described within the FDA guidance document entitled "Control of Nitrosamine Impurities in Human Drugs – Guidance for Industry." We are working with the FDA and plan to obtain approval of and implement an additional test method, specification, including a proposed acceptable intake limit, and additional controls to address this impurity prior to releasing our first vonoprazan-based products to the market. These additional activities will result in a delay of the planned VOQUEZNA™ TRIPLE PAK™ and VOQUEZNA™ DUAL PAK™ full commercial launches. We currently expect full commercial launch of these products, as well as, if approved, VOQUEZNA™ tablets for EE, in the first quarter of 2023. If we are unable to obtain FDA approval for, or are unable to develop and implement, a test method, a specification and controls to maintain nitrosamine levels in vonoprazan drug product at or below an acceptable intake limit, these product launches may be further delayed, and approval of our EE NDA may also be delayed, which could substantially increase our costs and delay or put at risk our ability to generate revenue and adversely affect our commercial prospects.

The success of our business, including our ability to finance our company and generate any revenue in the future, will primarily depend on the successful completion of clinical development, regulatory approval and commercialization of vonoprazan, including successfully addressing, to the FDA's and the medical community's satisfaction, the formation of nitrosamine impurities in commercial batches of vonoprazan drug product, which may be significantly delayed beyond our current expectations and may never occur. Although we have obtained marketing approval of vonoprazan in one indication, we have not yet succeeded in launching and successfully commercializing vonoprazan. Any inability to obtain required, additional regulatory approvals for, or, if approved, successfully commercializing vonoprazan, would materially and adversely affect our business, financial condition, prospects and operating results.

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

Unregistered Sales of Equity Securities

None.

Issuer Repurchases of Equity Securities

None.

Item 3. Defaults Upon Senior Securities

Not Applicable.

Item 4. Mine Safety Disclosures

Not Applicable.

Item 5. Other Information

Item 6. Exhibits

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Date	Number	
3.1	Amended and Restated Certificate of Incorporation	8-K	10/29/19	3.1	
3.2	Amended and Restated Bylaws	8-K	09/25/2020	3.1	
4.1	Form of Common Stock Certificate	S-1/A	10/15/19	4.1	
4.2	Warrant to purchase shares of common stock issued to Takeda Company Limited, dated May 7, 2019	S-1	9/30/19	4.2	
4.3	Warrant to purchase stock issued to Silicon Valley Bank, dated May 14, 2019	S-1	9/30/19	4.3	
4.4	Warrant to purchase stock issued to WestRiver Innovation Lending Fund VIII, L.P., dated May 14, 2019	S-1	9/30/19	4.4	
4.5	Note Purchase Agreement, dated May 7, 2019, by and among the Registrant and the other parties party thereto, as amended	S-1/A	10/15/19	4.5	
4.6	Description of Registered Securities	10-K	12/31/21	4.6	
10.2#	Form of Restricted Stock Grant Notice and Restricted Stock Agreement under Phathom Pharmaceuticals, Inc. 2019 Equity Incentive Plan				X
10.3†	Revenue Interest Financing Agreement, dated May 3, 2022, by and among NovaQuest Capital Management, Sagard Holding Manager, Hercules Capital and the Registrant				X
10.4	Amendment to the Loan and Security Agreement, dated September 17, 2021, by and among Hercules Capital and the Registrant.				X
10.5#	Amended and Restated Non-Employee Director Compensation Policy				X
10.6#	Transition and Separation Agreement and Release of Claims, dated April 5, 2022, by and between the Registrant and Anthony Guzzo				X
31.1	Certification of Chief Executive Officer of Phathom Pharmaceuticals, Inc., as required by Rule 13a-14(a) or Rule 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X
31.2	Certification of Chief Financial Officer of Phathom Pharmaceuticals, Inc., as required by Rule 13a-14(a) or Rule 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X
32.1*	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
32.2*	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.				X
101.SCH	Inline XBRL Taxonomy Extension Schema Document				X
101.CAL	Inline XBRL Taxonomy Calculation Linkbase Document				X
101.LAB	Inline XBRL Taxonomy Label Linkbase Document				X

101.PRE	Inline XBRL Presentation Linkbase Document	X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document	X
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)	

# Indicates management contract or compensatory plan

† Portions of this exhibit have been omitted for confidentiality purposes.

* This certification is deemed not filed for purpose of section 18 of the Exchange Act or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act.

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.

PHATHOM PHARMACEUTICALS, INC.

Date: August 2, 2022

By: /s/ Terrie Curran
Terrie Curran
Chief Executive Officer and Director
(Principal Executive Officer)

Date: August 2, 2022

By: /s/ Molly Henderson
Molly Henderson
Chief Financial and Business Officer
(Principal Financial and Accounting Officer)

PHATHOM PHARMACEUTICALS, INC.

2019 INCENTIVE AWARD PLAN

RESTRICTED STOCK UNIT GRANT NOTICE

Capitalized terms not specifically defined in this Restricted Stock Unit Grant Notice (the "***Grant Notice***") have the meanings given to them in the 2019 Incentive Award Plan (as amended from time to time, the "***Plan***") of Phathom Pharmaceuticals, Inc. (the "***Company***").

The Company hereby grants to the participant listed below ("***Participant***") the Restricted Stock Units described in this Grant Notice (the "***RSUs***"), subject to the terms and conditions of the Plan and the Restricted Stock Unit Agreement attached hereto as **Exhibit A** (the "***Agreement***"), both of which are incorporated into this Grant Notice by reference.

Participant:	*[Insert Participant Name]*
Grant Date:	*[Insert Grant Date] [Insert Number of*
Number of RSUs:	*RSUs]*
Vesting Commencement Date:	*[Insert Vesting Commencement Date]*
Vesting Schedule:	*[To be included in individual award agreements]*

By electronically accepting this document, Participant agrees to be bound by the terms of this Grant Notice, the Plan and the Agreement. Participant has reviewed the Plan, this Grant Notice and the Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of the Plan, this Grant Notice and the Agreement. Participant has been provided with a copy or electronic access to a copy of the prospectus for the Plan. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan, this Grant Notice or the Agreement.

PHATHOM PHARMACEUTICALS, INC.	**PARTICIPANT**
By:	By:
Print Name:	Print Name:
Title:	

EXHIBIT A

RESTRICTED STOCK UNIT AGREEMENT

Capitalized terms not specifically defined in this Agreement have the meanings specified in the Grant Notice or, if not defined in the Grant Notice, in the Plan.

ARTICLE I. GENERAL

1.1 Award of RSUs. The Company has granted the RSUs to Participant effective as of the grant date set forth in the Grant Notice (the "***Grant Date***"). Each RSU represents the right to receive one Share, as set forth in this Agreement. Participant will have no right to the distribution of any Shares until the time (if ever) the RSUs have vested.

1.2 Incorporation of Terms of Plan. The RSUs are subject to the terms and conditions set forth in this Agreement and the Plan, which is incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan will control.

1.3 Unsecured Promise. The RSUs will at all times prior to settlement represent an unsecured Company obligation payable only from the Company's general assets.

ARTICLE II.
VESTING; FORFEITURE AND SETTLEMENT

2.1 Vesting; Forfeiture. The RSUs will vest according to the vesting schedule in the Grant Notice (the "***Vesting Schedule***"), except that any fraction of an RSU that would otherwise be vested will be accumulated and will vest only when a whole RSU has accumulated. In the event of Participant's Termination of Service for any reason, all unvested RSUs will immediately and automatically be cancelled and forfeited, except as otherwise determined by the Administrator or provided in a binding written agreement between Participant and the Company. Unless and until the RSUs have vested in accordance with the Vesting Schedule set forth in the Grant Notice, Participant will have no right to any distribution with respect to such RSUs.

2.2 Settlement.

(a) RSUs will be paid in Shares as soon as administratively practicable after the vesting of the applicable RSU, but in no event more than sixty (60) days after the applicable vesting date. Notwithstanding the foregoing, the Company may delay any payment under this Agreement that the Company reasonably determines would violate Applicable Law until the earliest date the Company reasonably determines the making of the payment will not cause such a violation (in accordance with Treasury Regulation Section 1.409A-2(b)(7)(ii)), provided the Company reasonably believes the delay will not result in the imposition of excise taxes under Section 409A.

(b) All distributions shall be made by the Company in the form of whole shares of Common Stock.

(c) Neither the time nor form of distribution of Shares with respect to the RSUs may be changed, except as may be permitted by the Administrator in accordance with the Plan and Section 409A of the Code and the Treasury Regulations thereunder.

ARTICLE III.
TAXATION AND TAX WITHHOLDING

3.1 Representation. Participant represents to the Company that Participant has reviewed with Participant's own tax advisors the tax consequences of this Award and the transactions contemplated by the Grant Notice and this Agreement. Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents.

3.2 Tax Withholding.

(a) The Company shall not be obligated to deliver any certificate representing Shares issuable with respect to the RSUs to Participant or his or her legal representative unless and until Participant or his or her legal representative shall have paid or otherwise satisfied in full the amount of all federal, state, local and foreign taxes applicable with respect to the taxable income of Participant resulting from the vesting or settlement of the RSUs, the distribution of the Shares issuable with respect thereto, or any other taxable event related to the RSUs (the "***Tax Withholding Obligation***").

(b) Participant may elect to satisfy the Tax Withholding Obligation as provided in Section 9.5 of the Plan. Unless Participant elects to satisfy the Tax Withholding Obligation by one of the means described in Section 9.5 of the Plan, the Company has the right and option, but not the obligation, to treat Participant's failure to provide timely payment in accordance with the Plan of any withholding tax arising in connection with the RSUs as Participant's election to satisfy all or any portion of the withholding tax by requesting the Company retain Shares otherwise issuable under the Award.

(a) Participant acknowledges that Participant is ultimately liable and responsible for all taxes owed in connection with the RSUs, regardless of any action the Company or any Subsidiary takes with respect to any tax withholding obligations that arise in connection with the RSUs. Neither the Company nor any Subsidiary makes any representation or undertaking regarding the treatment of any tax withholding in connection with the awarding, vesting or payment of the RSUs or the subsequent sale of Shares. The Company and the Subsidiaries do not commit and are under no obligation to structure the RSUs to reduce or eliminate Participant's tax liability.

ARTICLE IV. OTHER PROVISIONS

4.1 Award Not Transferable. Without limiting the generality of any other provision hereof, the Award shall be subject to the restrictions on transferability set forth in Section 9.1 of the Plan.

4.2 Adjustments. Participant acknowledges that the RSUs and the Shares subject to the RSUs are subject to adjustment, modification and termination in certain events as provided in this Agreement and the Plan.

4.3 Notices. Any notice to be given under the terms of this Agreement to the Company must be in writing and addressed to the Company in care of the Company's Secretary at the Company's principal office or the Secretary's then-current email address or facsimile number. Any notice to be given under the terms of this Agreement to Participant must be in writing and addressed to Participant (or, if Participant is then deceased, to the Designated Beneficiary) at Participant's last known mailing address, email address or facsimile number in the Company's personnel files. By a notice given pursuant to this Section, either party may designate a different address for notices to be given to that party. Any notice will be deemed duly given when actually received, when sent by email, when sent by certified mail (return receipt requested) and deposited with postage prepaid in a post office or branch post office regularly maintained by the United

States Postal Service, when delivered by a nationally recognized express shipping company or upon receipt of a facsimile transmission confirmation.

4.4 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

4.5 Conformity to Securities Laws. Participant acknowledges that the Plan, the Grant Notice and this Agreement are intended to conform to the extent necessary with all Applicable Laws and, to the extent Applicable Laws permit, will be deemed amended as necessary to conform to Applicable Laws.

4.6 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement will inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer set forth in this Agreement or the Plan, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

4.7 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if Participant is subject to Section 16 of the Exchange Act, the Plan, the Grant Notice, this Agreement and the RSUs will be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including any amendment to Rule 16b-3) that are requirements for the application of such exemptive rule. To the extent Applicable Laws permit, this Agreement will be deemed amended as necessary to conform to such applicable exemptive rule.

4.8 Entire Agreement. The Plan, the Grant Notice and this Agreement (including any exhibit hereto) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof.

4.9 Agreement Severable. In the event that any provision of the Grant Notice or this Agreement is held illegal or invalid, the provision will be severable from, and the illegality or invalidity of the provision will not be construed to have any effect on, the remaining provisions of the Grant Notice or this Agreement.

4.10 Limitation on Participant's Rights. Participation in the Plan confers no rights or interests other than as herein provided. This Agreement creates only a contractual obligation on the part of the Company as to amounts payable and may not be construed as creating a trust. Neither the Plan nor any underlying program, in and of itself, has any assets. Participant will have only the rights of a general unsecured creditor of the Company with respect to amounts credited and benefits payable, if any, with respect to the RSUs, and rights no greater than the right to receive the Shares as a general unsecured creditor with respect to the RSUs, as and when settled pursuant to the terms of this Agreement.

4.11 Not a Contract of Employment. Nothing in the Plan, the Grant Notice or this Agreement confers upon Participant any right to continue in the employ or service of the Company or any Subsidiary or interferes with or restricts in any way the rights of the Company and its Subsidiaries, which rights are hereby expressly reserved, to discharge or terminate the services of Participant at any time for any reason whatsoever, with or without Cause, except to the extent expressly provided otherwise in a written agreement between the Company or a Subsidiary and Participant.

4.12 Counterparts. The Grant Notice may be executed in one or more counterparts, including by way of any electronic signature, subject to Applicable Law, each of which will be deemed an original and all of which together will constitute one instrument.

4.12 Section 409A.

(a) Notwithstanding any other provision of the Plan, this Agreement or the Grant Notice, the Plan, this Agreement and the Grant Notice shall be interpreted in accordance with, and incorporate the terms and conditions required by, Section 409A of the Code (together with any Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Grant Date, "Section 409A"). The Administrator may, in its discretion, adopt such amendments to the Plan, this Agreement or the Grant Notice or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, as the Administrator determines are necessary or appropriate to comply with the requirements of Section 409A.

(b) This Agreement is not intended to provide for any deferral of compensation subject to Section 409A of the Code, and, accordingly, the Shares issuable pursuant to the RSUs hereunder shall be distributed to Participant no later than the later of: (A) the fifteenth (15th) day of the third month following Participant's first taxable year in which such RSUs are no longer subject to a substantial risk of forfeiture, and (B) the fifteenth (15th) day of the third month following first taxable year of the Company in which such RSUs are no longer subject to substantial risk of forfeiture, as determined in accordance with Section 409A and any Treasury Regulations and other guidance issued thereunder.

4.13 Governing Law. The provisions of the Plan and all Awards made thereunder, including the RSUs, shall be governed by and interpreted in accordance with the laws of the State of Delaware, disregarding choice-of-law principles of the law of any state that would require the application of the laws of a jurisdiction other than such state.

* * * * *

Exhibit 10.3

Revenue Interest Financing Agreement

By and Among

Phathom Pharmaceuticals, Inc.,

as the Company

and

The Entities Set Forth on Schedule 1.1,

as Investors

Dated as of May 3, 2022

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REVENUE INTEREST FINANCING AGREEMENT

This REVENUE INTEREST FINANCING AGREEMENT, dated as of May 3, 2022 (this "Agreement"), is made and entered into by and among Phathom Pharmaceuticals, Inc., a Delaware corporation (the "Company"), the entities set forth on Schedule 1.1 hereto (the "Initial Investors") and any other entity or entities that become party hereto pursuant to Section 2.1(b)(ii) or Section 2.1(c) (together with the Initial Investors, the "Investors", and each, individually, an "Investor").

W I T N E S S E T H:

WHEREAS, the Company is in the business of, among other things, developing and commercializing the Products; and

WHEREAS, the Company desires additional funding to, among other things, develop and commercialize the Products in the Territory, and the Investors desire, on the terms and conditions set forth herein, to provide the Company with such additional funding on a several, but not joint, basis;

NOW THEREFORE, in consideration of the representations, warranties, covenants and agreements set forth herein and for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Company and the Investors hereby agree as follows:

ARTICLE 1

DEFINITIONS

Section 1.1 Definitions. The following terms, as used herein, shall have the following meanings:

"Additional Investor" means an Additional Regulatory Milestone Investor or an Additional Sales Milestone Investor.

"Additional Regulatory Milestone Investor" is defined in Section 2.1(b)(ii).

"Additional Regulatory Milestone Payment" is defined in Section 2.1(b)(ii).

"Additional Sales Milestone Investor" is defined in Section 2.1(c).

"Affiliate" means, with respect to any particular Person, any other Person directly or indirectly controlling, controlled by or under common control with such particular Person. For purposes of the foregoing sentence, the term "control" means direct or indirect ownership of (x) 50.0% or more, including ownership by trusts with substantially the same beneficial interests, of the voting and equity rights of such Person or (y) the power to direct the management or policies of such Person, whether through ownership of voting securities, by contract or otherwise.

"Agreement" is defined in the preamble.

"Anti-Corruption Laws" means all laws, rules and regulations of any jurisdiction applicable to the Company or any of its Affiliates from time to time concerning or relating to bribery or corruption, including the United States Foreign Corrupt Practices Act of 1977, the UK Bribery Act 2010 and other similar legislation in any other jurisdictions.

"Anti-Terrorism Laws" means all laws, rules, regulations and orders relating to terrorism or money laundering, including Executive Order No. 13224, the USA PATRIOT Act, the laws comprising or implementing the Bank Secrecy Act, and the laws administered by OFAC.

"Applicable Survival Date" is defined in Section 6.3(a).

"Applicable Withholding Certificate" means, with respect to each Investor (i) that is a "United States person" (within the meaning of Section 7701(a)(30) of the Code), a valid, true and properly executed IRS Form W-9 (or any applicable successor form) stating the taxpayer identification number of such Investor and certifying under penalties of perjury that such Investor is a "United States person" (within the meaning of Section 7701(a)(30) of the Code) and is exempt from United States federal backup withholding and (ii) that is not a "United States person" (within the meaning of Section 7701(a)(30) of the Code) a valid, true and properly executed applicable IRS Form W-8 (or any applicable successor form).

"Bankruptcy Event of Default" means any of (i) the liquidation or dissolution of the Company, (ii) a Voluntary Bankruptcy or (iii) an Involuntary Bankruptcy.

"Bankruptcy Laws" means, collectively, bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, fraudulent transfer or other similar laws affecting the enforcement of creditors' rights generally.

"Blocked Person" means any Person: (a) listed in the annex to, or who is otherwise subject to the provisions of, Executive Order No. 13224; (b) owned or controlled by, or acting for or on behalf of, any Person that is listed in the annex to, or who is otherwise subject to the provisions of, Executive Order No. 13224; (c) with which any Investor is prohibited from dealing or otherwise engaging in any transaction by any Anti-Terrorism Law; (d) that commits, threatens or conspires to commit or supports "terrorism" as defined in Executive Order No. 13224; or (e) that is named a "specially designated national" or "blocked person" on the most current list published by OFAC or other similar list.

"Business Day" means any day other than (a) a Saturday or Sunday or (b) a day on which banking institutions located in New York, New York are permitted or required by applicable law or regulation to remain closed.

"Cap Amount" means, as of any date of determination, (A) the product of (x) the Investment Amount and (y) two, (B) less any amounts creditable to the Cap Amount specifically provided for in this Agreement (but in no event less than zero).

"Cap Payment" means, as of any date of determination, the difference between the Cap Amount as of such date and the amount of all Royalty Payments received by the Investors pursuant to this Agreement as of such date.

"Change of Control" means any (w) reorganization, recapitalization, consolidation or merger (or similar transaction or series of related transactions) of the Company or issuance, sale or exchange of shares (or similar transaction or series of related transactions) of the Company in which the holders of the Company's outstanding shares immediately before consummation of such transaction or series of related transactions do not, immediately after consummation of such transaction or series of related transactions, retain shares representing more than 50.0% of the voting power of the surviving entity of such transaction or series of related transactions (or the parent of such surviving entity if such surviving entity is wholly owned by such parent), in each case without regard to whether the Company is the surviving entity, (x) Disposition of all or substantially all of the properties or assets of the Company, (y) Disposition of all or substantially all of the Product Rights or (z) "Change in Control" or any comparable term as defined in the Hercules Loan Documents.

"Code" means the Internal Revenue Code of 1986.

"Combination Product" has the meaning set forth in the definition of Net Sales.

"Commercialization" means all activities undertaken in support of the promotion, marketing, sale and distribution (including importing, exporting, transporting, customs clearance, warehousing, invoicing, handling and delivering the Products to customers) of the Products for human therapeutic uses. "Commercialize" means to engage in Commercialization activities.

"Commercially Reasonable Efforts" means, with respect to the efforts to be expended, or considerations to be undertaken, by the Company or its Affiliate with respect to any objective, activity or decision to be undertaken hereunder, reasonable, good faith efforts to accomplish such objective, activity or decision as a similarly situated pharmaceutical company would normally use to accomplish a similar objective, activity or decision under similar circumstances, it being understood and agreed that with respect to the development, manufacture, seeking and obtaining regulatory approval (including Marketing Approval), or Commercialization of the Compound or a Product in the United States, the Company may take into account: (a) issues of efficacy, safety, and expected and actual approved labeling, (b) the expected and actual competitiveness of alternative products sold by third parties in the marketplace, (c) the expected and actual product profile of the Compound or Product, (d) the expected and actual patent and other proprietary position of the Product, (e) the likelihood of regulatory approval (including Marketing Approval) and/or pricing approval given the regulatory structure involved, including regulatory or data exclusivity, (f) the expected and actual profitability and return on investment of the Compound or Product, taking into consideration amounts owed hereunder, and (g) all other relevant scientific, technical, regulatory and commercial factors.

"Company" is defined in the preamble.

"Company Indemnified Parties" is defined in Section 6.1(b).

"Compound" means the chemical compound vonoprazan fumarate (coded by Takeda as TAK-438), and any derivatives thereof, including any analogs, prodrugs, alternative salts, hydrates, solvates, esters, metabolites, intermediates, stereoisomers, complexes, and co-crystals, thereof.

"Confidential Information" is defined in Section 7.1.

"Custodian" means any receiver, trustee, assignee, liquidator, custodian or similar official under any Bankruptcy Law.

"Default" means any event that, with the giving of notice or passage of time, or both, could result in an Event of Default.

"Disclosing Party" is defined in Section 7.1.

"Disposition" or "Dispose" means, with respect to any Person, directly or indirectly, the sale, assignment, conveyance, transfer, license, sublicense or other disposition (whether in a single transaction or a series of related transactions) (including by way of a sale and leaseback transaction) of property or assets by any Person.

"Effective Date" means the date of this Agreement.

"EMA" means the European Medicines Agency, or any successor agency thereto.

"Event of Default" means any of (i) any Bankruptcy Event of Default, (ii) the breach by the Company of any payment obligations under this Agreement, which failure to pay continues for more than five Business Days after receipt of written notice from any of the Investors, (iii) except as set forth in clause (ii) above, the breach by the Company of any of its obligations under any Transaction Document to which it is party, where the Required Investors have provided notice of such breach to the Company in writing and the Company has not cured such breach within 30 days following receipt of such notice and where such breach, if not cured, would reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect, (iv) the termination of the Takeda License, (v) the revocation of any Marketing Approval of a Product with respect to the erosive esophagitis indication by the FDA for safety or manufacturing reasons related to the Compound or (vi) the acceleration of the obligations under the Hercules Loan Agreement, which acceleration is not rescinded, or the obligations thereunder are not paid in full.

"Event of Default Fee" means (i) on any date beginning on the Effective Date until, but not including, [***], an amount equal to [***] the Investment Amount as of such date, (ii) on any date beginning on [***] until, but not including, [***], an amount equal to [***] times the Investment Amount as of such date, and (iii) on any date beginning on [***] and thereafter, an amount equal to [***] the Investment Amount as of such date, less, in each case, the amount of any Royalty Payments and any other payments previously paid to the Investors pursuant to this Agreement (but in no event less than zero).

"Event of Default Payment Date" has the meaning set forth in Section 2.4(a).

"Executive Order No. 13224" means Executive Order No. 13224, 66 Fed. Reg. 49079 (Sept. 25, 2001).

"Existing Patent Rights" is defined in Section 4.1(k)(i).

"FD&C Act" means the United States Federal Food, Drug, and Cosmetic Act.

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

"FDA Application Integrity Policy" is defined in Section 4.1(g)(ii).

"First True Up Date Minimum" is defined in Section 2.3(a).

"First True Up Date Royalties" is defined in Section 2.3(a).

"First True Up Payment" is defined in Section 2.3(a).

"Funding Condition Satisfaction Notice" means a written notice from the Company to the Initial Investors certifying that the Regulatory Milestone (HP) Event has occurred, which notice shall state the Funding Date and shall provide the wire transfer instructions of the Company in respect of the Funding Date Payment.

"Funding Date" means the Business Day that is 10 Business Days after the Effective Date (or such other Business Day agreed to by the Company and the Initial Investors).

"Funding Date Payment" is defined in Section 2.1(a).

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

"Governmental Entity" means any: (a) nation, principality, republic, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, state, local, municipal, foreign or other government; (c) governmental or quasi-governmental authority of any nature (including any governmental division, subdivision, department, agency, bureau, branch, office, commission, council, board, instrumentality, officer, official, representative, organization, unit, body or other entity and any court, arbitrator or other tribunal); (d) multi-national organization or body; or (e) individual, body or other entity exercising, or entitled to exercise, any executive, legislative, judicial, administrative, regulatory, police, military or taxing authority or power of any nature.

"Guarantor" has the meaning set forth in the definition of Hercules Loan Agreement.

"Hercules" means Hercules Capital, Inc., a Maryland corporation, together with its successors in such capacity.

"Hercules Consent" is defined in Section 3.1(d).

"Hercules Loan Agreement" means that certain Loan and Security Agreement, dated September 17, 2021, among the Company, each Person identified as a "Guarantor" on the signature pages thereto and each other Person that joins as a Guarantor (together with their successors and permitted assigns) (each, a "Guarantor"), each of the Persons identified as a "Lender" on the signature pages thereto and their successors and assigns, and Hercules, as administrative agent and collateral agent, and its successors and assigns, as amended by the Hercules Consent and as further amended, restated, amended and restated, supplemented, waived, replaced (whether or not upon termination, and whether with the original lenders or otherwise) or otherwise modified from time

to time, including any indentures, credit facilities, term loan facilities or other agreements extending the maturity thereof, refinancing, replacing or otherwise restructuring all or a portion of the Indebtedness under such indentures, credit facilities, term loan facilities or other agreements or any successor or replacement indentures, credit facilities, term loan facilities or other agreements and whether with the original obligors, agents, lenders, institutional investors or otherwise, and whether provided under the original Loan and Security Agreement or one or more other credit or other agreements or indentures, and any agreement (and related document) governing Indebtedness incurred to refinance, in whole or in part, the borrowings, other extensions of credit and commitments then outstanding or permitted to be outstanding under such debt facilities or successor debt facilities, whether by the same or any other obligor, issuer, agent, lender or group of lenders (or institutional investors).

"Hercules Loan Documents" means (a) the Hercules Loan Agreement, and (b) each other "Loan Document" or such similar term as defined in the Hercules Loan Agreement, in each case as amended, restated, amended and restated, modified or otherwise supplemented from time to time.

"IFRS" means International Financial Reporting Standards in effect from time to time.

"Improvements" means any improvement, invention or discovery relating to a Product (other than with respect to a new composition of matter), including the formulation, or the method of manufacture of a Product.

"In-License" means each license, settlement agreement or other agreement or arrangement between the Company or any of its Affiliates and any Third Party pursuant to which the Company or any of its Affiliates obtains a license or sublicense or a covenant not to sue or similar grant of rights to any patents or other intellectual property rights of such Third Party that is necessary or reasonably useful for the research, development, manufacture, use or Commercialization of a Product in the Territory. For the avoidance of doubt, the Takeda License is an In-License.

"Indebtedness" with respect to a Person means (i) all obligations of such Person for borrowed money, (ii) all obligations of such Person evidenced by a note, bond, debenture or similar instrument, (iii) all obligations of such Person upon which interest charges are customarily paid, (iv) all obligations of such Person under conditional sale or other title retention agreements relating to property acquired by such Person, (v) all obligations of such Person in respect of the deferred purchase price of property or services (excluding deferred compensation and accounts payable incurred in the ordinary course of business and not overdue by more than 90 days), (vi) all indebtedness of others secured by (or for which the holder of such indebtedness has an existing right, contingent or otherwise, to be secured by) any Lien on property owned or acquired by such Person if the indebtedness secured thereby has been assumed, (vii) all guarantees by such Person of indebtedness of others, (viii) all capital lease obligations of such Person, (ix) all obligations, contingent or otherwise, of such Person as an account party in respect of letters of credit and letters of guaranty, (x) all obligations of such Person under any interest rate exchange agreement, foreign currency exchange agreement, commodity price protection agreement, currency swap, forward, future or derivative transactions or other interest or currency exchange rate or commodity price hedging arrangement, (xi) all obligations, contingent or otherwise, of such Person in respect of bankers' acceptances, (xii) any disqualified equity interests of such Person, and (xiii) all other

obligations required to be classified as indebtedness of such Person under GAAP or IFRS; provided that, notwithstanding the foregoing, Indebtedness shall not include accrued expenses, deferred rent, deferred taxes, deferred compensation or customary obligations under employment agreements.

"Indemnified Party" is defined in Section 6.2.

"Indemnifying Party" is defined in Section 6.2.

"Initial Investors" is defined in the preamble.

"Intellectual Property Product Rights" means any and all of the following as they exist throughout the Territory at any time: (a) the Patent Rights; (b) rights in registered and unregistered trademarks, service marks, trade names, trade dress, logos, packaging design, slogans and Internet domain names, and registrations and applications for registration of any of the foregoing, in each case, with respect to any Product; (c) rights in all Know-How necessary for the development, manufacture or Commercialization of any Product; and (d) any and all other intellectual property rights and/or proprietary rights, whether or not patentable, specifically relating to any of the foregoing, covering or related to the development, manufacture, use or Commercialization of a Product, including any non-published and proprietary information or data contained in any NDA for any Product.

"Investment Amount" means, as of any date of determination, the sum of (a) the Funding Date Payment, (b) any Regulatory Milestone Payment and (c) any Sales Milestone Payment, in each case to the extent actually paid by the Investors to the Company as of such date. When any reference herein to "Investment Amount" is qualified by "each", "each of" or similar words, then such reference shall be to each of the payments described in clause (a) above, clause (b) above and clause (c) above, individually, as the context requires.

"Investor" is defined in the preamble.

"Investor Account" with respect to an Investor means the bank account described on the Investor Account Information Document of such Investor, as such bank account may be changed by such Investor in its sole discretion from time to time (including in connection with any assignment by such Investor in accordance with Section 9.4) upon prior written notice to the Company in accordance with Section 9.2.

"Investor Account Information Document" means (i) with respect to an Initial Investor, the document setting forth the bank account of such Initial Investor delivered by such Initial Investor to the Company pursuant to Section 3.1(g), and (ii) with respect to an Additional Investor, the document setting forth the bank account of such Additional Investor delivered by such Additional Investor pursuant to Section 2.1(e).

"Investor Indemnified Parties" is defined in Section 6.1(a).

"Investors" is defined in the preamble.

"Involuntary Bankruptcy" means a court of competent jurisdiction enters an order or decree

under any Bankruptcy Law that: (i) is for relief against the Company in an involuntary case; (ii) appoints a Custodian of the Company or for any substantial part of its property; or (iii) orders the winding up or liquidation of the Company; or any similar relief is granted under any non-U.S. laws and the order or decree remains unstayed and in effect for 60 consecutive days.

"IRS" means the U.S. Internal Revenue Service.

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

"Know-How" means any and all proprietary or confidential information, know-how and trade secrets, including processes, formulae, models and techniques (but excluding rights in research in progress, algorithms, data, databases, data collections, chemical and biological materials and the results of experimentation and testing).

"Knowledge of the Company" means the actual knowledge of [***] (or any successor to any such person), after reasonable due inquiry.

"License Milestone Revenue" means any upfront or other one-time payments, milestone payments (whether regulatory, sales-based or non-sales-based), license signing fees and license maintenance fees received by the Company or any of its Affiliates from a Licensee or any of such Licensee's affiliates or sublicensees under or pursuant to an Out-License or any sublicense under or other agreement ancillary to such Out-License, or payments received by the Company or any of its Affiliates from a Third Party in lieu of any of the foregoing payments. For the avoidance of doubt, "License Milestone Revenue" shall exclude, or be reduced by, as the case may be:

(a) payments and fees received from any Permitted U.S. Out-Licensees in respect of any Permitted U.S. Out-Licenses (which are Net Sales under this Agreement);

(b) payments or grants received from a Third Party specifically to cover future costs to be incurred by or on behalf of the Company or any Affiliate after the execution of such Out-License attributable to the development of the Product, which costs are expressly covered by the Licensee under such Out-License; and

(c) Tax credits and Taxes withheld generally based on non-Tax residency of the recipient.

Without limiting clauses (a) through (c) above, to the extent that the Company permits any Licensee to set off any payments payable pursuant to the Out-License with such Licensee against any amounts payable by the Company to such Licensee, then the License Milestone Revenue under such Out-License shall include all such payments payable to the Company under such Out-License without giving effect to any such setoff.

License Milestone Revenue shall also include the amounts described in Section 5.4(d).

"License Royalty Revenue" means any sales-based royalty payments received by the Company or any of its Affiliates from a Licensee or any of such Licensee's affiliates or sublicensees under or pursuant to an Out-License or any sublicense under or other agreement

ancillary to such Out-License, or payments received by the Company or any of its Affiliates from a Third Party in lieu of any of the foregoing payments. For the avoidance of doubt, "License Royalty Revenue" shall exclude, or be reduced by, as the case may be:

(a) payments and fees received from any Permitted U.S. Out-Licensees in respect of any Permitted U.S. Out-Licenses (which are Net Sales under this Agreement);

(b) payments or grants received from a Third Party specifically to cover future costs to be incurred by or on behalf of the Company or any Affiliate after the execution of such Out-License attributable to the development of the Product, which costs are expressly covered by the Licensee under such Out-License;

(c) Tax credits and Taxes withheld generally based on non-Tax residency of the recipient; and

(d) sales or supply of Product inventory at or below the Company's actual cost of goods sold, provided, however, that any mark-up from, or other amounts in excess of, the Company's cost of goods sold for such inventory shall be License Royalty Revenue.

Without limiting clauses (a) through (d) above, to the extent that the Company permits any Licensee to set off any payments payable pursuant to the Out-License with such Licensee against any amounts payable by the Company to such Licensee, then the License Royalty Revenue under such Out-License shall include all such payments payable to the Company under such Out-License without giving effect to any such setoff.

License Royalty Revenue shall also include the amounts described in Section 5.4(d).

"Licensee" means, with respect to any Product, a Third Party to whom the Company or any Affiliate of the Company has granted an Out-License.

"Lien" means any mortgage, lien, pledge, participation interest, charge, adverse claim, security interest, encumbrance or restriction of any kind, whether voluntarily incurred and arising by operation by law or otherwise, including any restriction on use, transfer or exercise of any other attribute of ownership of any kind.

"Loss" means any and all Judgments, damages, losses, claims, costs, liabilities and expenses, including reasonable fees and out-of-pocket expenses of counsel.

"Marketing Approval" means, an NDA approved by the FDA, a marketing authorization application approved by the European Commission of the European Union, upon the recommendation of the EMA under the centralized European procedure, or any corresponding non-U.S. or non-EMA application, registration or certification in the Territory, necessary or reasonably useful to Commercialize a Product approved by the corresponding Regulatory Authority, including pricing and reimbursement approvals where required.

"Material Adverse Effect" means a material adverse effect on (i) the timing, duration or amount of the Royalty Payments, (ii) the Commercialization of a Product in the United States, (iii) any of the Intellectual Property Product Rights, including the Company's rights in or to any

Intellectual Property Product Rights, (iv) any Marketing Approval of a Product in the United States or the timing thereof, (v) the legality, validity or enforceability of any provision of any Transaction Document, (vi) the ability of the Company to perform any of its obligations under any Transaction Document (including the Company being unable or failing to make the Royalty Payments in accordance with the terms of this Agreement) or to consummate the transactions contemplated hereby or thereby, or (vii) the rights or remedies of the Investors under any Transaction Document.

"Minimum Cash Reference Amount" means, as of any date of determination, the difference between the Investment Amount as of such date and the amount of all Royalty Payments received by the Investors pursuant to this Agreement as of such date.

"NDA" means a New Drug Application submitted to the FDA in the United States in accordance with the FD&C Act with respect to a pharmaceutical product or any analogous application or submission with any Regulatory Authority outside of the United States.

"Net Sales" means, with respect to any Product, the gross amounts invoiced and/or received (whichever is the first to occur) by the Company and its Affiliates and any Permitted U.S. Out-Licensee for sales of such Product to Third Parties, less the following deductions, to the extent such deductions are paid, incurred or otherwise taken, reasonable and customary, provided to Third Parties, and actually allowed with respect to such sales (to the extent not reimbursed by any Third Party and without duplication):

[***]

The Net Sales of any Product sold as a component of a combination or bundled product that consists of a Product (or the Compound) together with one or more other therapeutically active products or compounds (a "Combination Product") shall be calculated as follows:

[***]

Net Sales shall also include the amounts described in Section 5.4(d).

"OFAC" means the U.S. Department of Treasury Office of Foreign Assets Control.

"OFAC Lists" means, collectively, the Specially Designated Nationals and Blocked Persons List maintained by OFAC pursuant to Executive Order No. 13224 and/or any other list of terrorists or other restricted Persons maintained pursuant to any of the rules and regulations of OFAC or pursuant to any other applicable executive orders.

"Out-License" means each license, settlement agreement or other agreement or arrangement between the Company or any of its Affiliates and any Third Party pursuant to which the Company or any of its Affiliates grants a license, sublicense or similar grant of any Intellectual Property Product Right that is necessary or reasonably useful for the research, development, manufacture, use or Commercialization of a Product in the Territory.

"Patent Rights" means any and all patents and patent applications owned or in-licensed by the Company or any of its Affiliates or under which the Company or any of its Affiliates is or may become empowered to grant licenses necessary or reasonably useful for the research, development,

manufacture, use, detailing or Commercialization of a Product in the Territory, as well as existing or future patents covering any Improvements.

"Permits" is defined in Section 4.1(g)(iv).

"Permitted License" means:

(a) any Out-License in any country in the Territory other than the United States;

(b) with respect to the United States, any Permitted U.S. Out-License; and

(c) any license or sublicense of any Intellectual Property Product Right between the Company and its Subsidiaries;

provided, that no Permitted License shall assign or otherwise convey title to or impose any Lien, other than the grant of the permitted license or sublicense, in favor of any Third Party.

"Permitted Liens" means the following:

(a) Liens for Taxes, assessments or governmental charges or levies not yet due or which are being contested in good faith and by appropriate proceedings diligently conducted, if adequate reserves with respect thereto are maintained on the books of the applicable Person in accordance with GAAP;

(b) statutory Liens of landlords and Liens of carriers, warehousemen, mechanics, materialmen and suppliers and other Liens imposed by law or pursuant to customary reservations or retentions of title arising in the ordinary course of business, provided, that, such Liens secure only amounts not yet due and payable or, if due and payable, are unfiled and no other action has been taken to enforce the same or are being contested in good faith by appropriate proceedings for which adequate reserves determined in accordance with GAAP have been established;

(c) Liens on property existing at the time of acquisition of such property, provided, that such Liens were in existence prior to such acquisition and not incurred in contemplation thereof;

(d) Permitted Licenses, including any interest or title of a licensee under a Permitted License;

(e) Liens under the Hercules Loan Documents;

(f) Liens permitted under the Hercules Loan Documents; and

(g) Liens granted under the Transaction Documents for the benefit of the Investors.

"Permitted U.S. Out-License" means any Out-License that is non-exclusive or co-exclusive with the Company or any of its Affiliates and is entered into by the Company or any of its Affiliates pursuant to which the Company or its Affiliate and a Licensee agree to co-Commercialize one or more Products in the United States, including sharing in the net profits (and losses) of such

Commercialization, with the Company (or its Affiliate) entitled to at least a 40.0% share of such net profits (and losses), whether such percentage is calculated as a percentage of net sales or net profits.

"Permitted U.S. Out-Licensee" means the Licensee party to a Permitted U.S. Out-License.

"Person" means any individual, firm, corporation, company, partnership, limited liability company, trust, joint venture, association, estate, trust, Governmental Entity or other entity, enterprise, association or organization.

"Post-Regulatory Milestone Change of Control" means a Change of Control that occurs on or after the earlier of (i) [***] and (ii) the date that the Regulatory Milestone Payment is made.

"Post-Regulatory Milestone Change of Control Payment Date" means a Business Day identified by the Company by written notice to the Investors that is on or prior to the occurrence of the Change of Control described in the definition of Post-Regulatory Milestone Change of Control.

"Post-Regulatory Milestone Change of Control Price" means an amount equal to [***], less the amount of all Royalty Payments and any other payments received by the Investors pursuant to this Agreement (but in no event less than zero), as of the Post-Regulatory Milestone Change of Control Payment Date.

"Pre-Regulatory Milestone Change of Control" means a Change of Control that occurs on any date beginning on the Effective Date until the earlier of (i) [***] and (ii) the date that the Regulatory Milestone Payment is made.

"Pre-Regulatory Milestone Change of Control Payment Date" means a Business Day identified by the Company by written notice to the Investors that is on or prior to the occurrence of the Change of Control described in the definition of Pre-Regulatory Milestone Change of Control.

"Pre-Regulatory Milestone Change of Control Price" means, as of the Pre-Regulatory Milestone Change of Control Payment Date, an amount equal to (i) the Cap Amount, less the amount of all Royalty Payments received by the Investors pursuant to this Agreement (but in no event less than zero), as of the Pre-Regulatory Milestone Change of Control Payment Date plus (ii) (a) beginning on the Effective Date until the day prior to the [***], [***] as of the Pre-Regulatory Milestone Change of Control Payment Date and (b) beginning on [***], [***] as of the Pre-Regulatory Milestone Change of Control Payment Date.

"Prime Rate" means the prime rate published by The Wall Street Journal, from time to time, as the prime rate.

"Product" and "Products" means, individually and collectively, any pharmaceutical product, including all forms, presentations, strengths, doses and formulations (including any method of delivery), containing the Compound alone or in combination with at least one other therapeutically active ingredient.

"Product Rights" means any and all of the following, as they exist throughout the Territory: (a) Intellectual Property Product Rights, (b) regulatory filings, submissions and approvals, including Marketing Approvals, with or from any Regulatory Authorities with respect to any of the Products, (c) In-Licenses and (d) Out-Licenses.

"Prohibited Assignee" means (i) any competitor of the Company primarily operating in the biopharmaceutical industry, at least 50.0% of the revenues of which are derived from the sale of biopharmaceutical products, and (ii) any of such competitor's Affiliates (other than any Person that is a bona fide debt fund primarily engaged in the making, purchasing, holding or other investing in commercial loans, notes, bonds or similar extensions of credit or securities in the ordinary course of business) that is either (x) identified by name in writing by the Company to the Investors from time to time or (y) clearly identifiable on the basis of such Affiliate's name.

"Qualified Party" means: (i) a pharmaceutical or biotech company with (a) annual revenue for its most recently completed fiscal year of at least [***] and (b) a market capitalization or enterprise value (as determined in good faith by the Company) in excess of [***] at the time of determination; or (ii) any other Person designated as such in writing by mutual agreement of the Company and the Required Investors.

"Receiving Party" is defined in Section 7.1.

"Register" is defined in Section 9.4.

"Regulatory Authority" means any national or supranational Governmental Entity, including the FDA, the European Commission of the European Union (upon the recommendation of the EMA) or such equivalent regulatory authority, or any successor agency thereto, that has responsibility in granting a Marketing Approval.

"Regulatory Milestone (EE) Event" means that the FDA has approved the Company's NDA for vonoprazan for an indication relating to the healing and maintenance of healing of erosive esophagitis with an approved indication on the label that is generally consistent with that sought in the Company's NDA submission.

"Regulatory Milestone (HP) Event" means that the FDA has approved the Company's NDA for the Compound co-packaged with one or more antibiotics for treatment of *Helicobacter pylori* infection in adults with an approved indication on the label that is generally consistent with that sought in the Company's NDA submission.

"Regulatory Milestone (NERD) Event" means that the FDA has approved the Company's NDA (or supplemental NDA) for vonoprazan for an indication relating to the treatment of heartburn associated with symptomatic non-erosive gastroesophageal reflux disease, with an approved indication on the label that is generally consistent with that sought in the Company's NDA submission (or the Company's supplemental NDA submission).

"Regulatory Milestone Payment" means (i) at any time prior to the date on which the Company has obtained a commitment for an Additional Regulatory Milestone Payment, if any, pursuant to Section 2.1(b)(ii), $160,000,000, and (ii) thereafter, an amount equal to (a)

$160,000,000 plus (b) the amount of the Additional Regulatory Milestone Payment for which the Company has obtained a commitment pursuant to Section 2.1(b)(ii).

"Regulatory Milestone Payment Option" is defined in Section 2.1(b)(ii).

"Regulatory Milestone ROFO Period" is defined in Section 2.1(b)(ii).

"Representative" means, with respect to any Person, (a) any direct or indirect equityholder, member or partner of such Person and (b) any manager, director, trustee, officer, employee, agent, advisor or other representative (including attorneys, accountants, consultants, contractors, bankers and financial advisers and actual and potential lenders (or other sources of funding), investors, co-investors and assignees) of such Person.

"Required Investors" means, as of any date of determination, Investors whose Specified Percentages taken together equal at least 50.1% as of such date.

"Revenue Interest Collateral" is defined in Section 2.7(a).

"Revenue Interests" means all of the Company's rights, title and interest in and to the Royalty Payments.

"ROFO Regulatory Notice" is defined in Section 2.1(b)(ii).

"ROFO Sales Notice" is defined in Section 2.1(c).

"Royalty Payment Date" is defined in Section 2.2(a).

"Royalty Payments" means, for each calendar quarter from and after April 1, 2022, an amount equal to (i) the amount of all aggregate Net Sales in the Territory during such calendar quarter multiplied by the Royalty Rate, plus (ii) the amount of all aggregate License Royalty Revenue in the Territory during such calendar quarter multiplied by 10.0%, plus (iii) the amount of all aggregate License Milestone Revenue in the Territory during such calendar quarter multiplied by 10.0%.

"Royalty Rate" means 10.0%, provided, however, that subject to receipt by the Investors of written evidence from the Company of the achievement of the Regulatory Milestone (NERD) Event, the "Royalty Rate" shall be reduced to [***] for the increment of Net Sales in the Territory exceeding the amounts set forth in the table below for the corresponding calendar year:

Calendar Year	Net Sales
2022	[***]
2023	[***]
2024	[***]
2025	[***]
2026	[***]
2027 and thereafter	[***]

For the avoidance of doubt, the Royalty Rate shall not change solely due to the occurrence or non-occurrence of an Additional Regulatory Milestone Payment and/or a Sales Milestone Payment.

"Royalty Report" is defined in Section 2.2(c).

"Sales Milestone Amount Notice" is defined in Section 2.1(c).

"Sales Milestone Event" means that aggregate Net Sales of Products in the Territory in the twelve-month period ending [***] shall have been equal to or greater than [***].

"Sales Milestone Payment" is defined in Section 2.1(c).

"Sales Milestone Payment Option" is defined in Section 2.1(c).

"Sales Milestone ROFO Period" is defined in Section 2.1(c).

"Sanctioned Country" means, at any time, a country or territory that is the subject or target of any Sanctions.

"Sanctioned Person" means, at any time, (a) any Person listed in any Sanctions-related list of designated Persons maintained by OFAC or the U.S. Department of State, or by the United Nations Security Council, the United Kingdom, the European Union or any European Union member state, (b) any Person operating, organized or resident in a Sanctioned Country or (c) any Person controlled by any such Person.

"Sanctions" means economic or financial sanctions or trade embargoes imposed, administered or enforced from time to time by (a) the U.S. government, including those administered by OFAC or the U.S. Department of State, or (b) the United Nations Security Council, the European Union or Her Majesty's Treasury of the United Kingdom.

"Second True Up Date Minimum" is defined in Section 2.3(b).

"Second True Up Date Royalties" is defined in Section 2.3(b).

"Second True Up Payment" is defined in Section 2.3(b).

"Specified Percentage" means, with respect to an Investor as of any date of determination, (i) the Investment Amount paid by such Investor as of such date divided by (ii) the total Investment Amount paid by all Investors as of such date.

"Subordination Agreement" means that certain Subordination Agreement dated as of the Effective Date by and among Hercules and the Investors, and acknowledged and agreed to by the Company, in substantially the form attached hereto as Exhibit A, as amended, amended and restated, supplemented and otherwise modified from time to time in accordance with the terms thereof.

"Subsidiary" means any and all corporations, partnerships, limited liability companies, joint ventures, associations and other entities controlled (by contract or otherwise) by the Company directly or indirectly through one or more intermediaries. For purposes hereof, the Company shall be deemed to control a partnership, limited liability company, association or other business entity if the Company, directly or indirectly through one or more intermediaries, shall be allocated a majority of partnership, limited liability company, association or other business entity gains or losses or shall be or control the managing director or general partner of such partnership, limited liability company, association or other business entity.

"Takeda" means Takeda Pharmaceutical Company Limited, a company incorporated under the laws of Japan.

"Takeda License" means that certain License Agreement, dated May 7, 2019, by and between the Company and Takeda, as amended by Amendment No. 1, dated September 21, 2020, and as may be further amended, amended and restated, supplemented or otherwise modified from time to time.

"Tax" or "Taxes" means any federal, state, local or foreign income, gross receipts, license, payroll, employment, excise, severance, occupation, premium, windfall profits, environmental, customs duties, capital stock, franchise, profits, withholding, social security, unemployment, disability, real property, personal property, abandoned property, value added, alternative or add-on minimum, estimated or other tax of any kind whatsoever, including any interest, penalty or addition thereto, whether disputed or not.

"Territory" shall mean the United States, Canada, Albania, Andorra, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Monaco, Montenegro, Netherlands, North Macedonia (formerly Macedonia), Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland, and Vatican City (Holy See).

"Third Party" means any Person that is not the Company or the Company's Affiliates.

"Transaction Documents" means this Agreement, the Subordination Agreement and any other documents, instruments or financing statements required to be delivered hereunder or thereunder or in connection herewith or therewith.

"True Up Payment" is defined in Section 2.3(b).

"True Up Payments" is defined in Section 2.3(b).

"UCC" means the Uniform Commercial Code as in effect from time to time in the State of New York; provided, that if, with respect to any financing statement or by reason of any provisions of applicable law, the perfection or the effect of perfection or non-perfection of the security interest or any portion thereof granted pursuant to Section 2.7(a) is governed by the Uniform Commercial Code as in effect in a jurisdiction of the United States other than the State of New York, then "UCC" means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions of this Agreement and any financing statement relating to such perfection or effect of perfection or non-perfection.

"U.S." or "United States" means the United States of America, its 50 states, each territory thereof and the District of Columbia.

"Voluntary Bankruptcy" means the Company, pursuant to or within the meaning of any Bankruptcy Law: (i) commences a voluntary case; (ii) consents to the entry of an order for relief against it in an involuntary case; (iii) consents to the appointment of a Custodian of it or for any substantial part of its property; or (iv) makes a general assignment for the benefit of its creditors or takes any comparable action under any non-U.S. laws relating to insolvency.

Section 1.2 Certain Interpretations. Except where expressly stated otherwise in this Agreement, the following rules of interpretation apply to this Agreement:

(a) "either" and "or" are not exclusive and "include," "includes" and "including" are not limiting and shall be deemed to be followed by the words "without limitation";

(b) "extent" in the phrase "to the extent" means the degree to which a subject or other thing extends, and such phrase does not mean simply "if";

(c) "hereof," "hereto," "herein" and "hereunder" and words of similar import when used in this Agreement refer to this Agreement as a whole and not to any particular provision of this Agreement;

(d) references to a Person are also to its permitted successors and assigns (subject to any restrictions on assignment, transfer or delegation set forth herein), and any reference to a Person in a particular capacity excludes such Person in other capacities;

(e) definitions are applicable to the singular as well as the plural forms of such terms;

(f) references to an "Article", "Section" or "Exhibit" refer to an Article or Section of, or an Exhibit to, this Agreement, and references to a "Schedule" refer to a Schedule to this Agreement;

(g) references to "$" or otherwise to dollar amounts refer to the lawful currency of the United States;

(h) references to a law include any amendment or modification to such law and any rules and regulations issued thereunder, whether such amendment or modification is made, or issuance of such rules and regulations occurs, before or after the Effective Date;

(i) a term has the meaning assigned to it and an accounting term not otherwise defined has the meaning assigned to it in accordance with GAAP;

(j) references to an agreement or other document include references to such agreement or document as from time to time amended, restated, reformed, supplemented or otherwise modified in accordance with the terms thereof (subject to any restrictions on such amendments, restatements, reformations, supplements or modifications set forth in any Transaction Document) and include any annexes, exhibits and schedules attached thereto;

(k) the word "will" shall be construed to have the same meaning and effect as the word "shall";

(l) in the computation of a period of time from a specified date to a later specified date, the word "from" means "from and including" and each of the words "to" and "until" means "to but excluding";

(m) where any payment is to be made, any funds are to be applied or any calculation is to be made under this Agreement on a day that is not a Business Day, unless this Agreement otherwise provides, such payment shall be made, such funds shall be applied and such calculation shall be made on the succeeding Business Day, and payments shall be adjusted accordingly;

(n) words of any gender shall mean and include the correlative words of any other gender;

(o) unless otherwise defined, all terms that are defined in the UCC shall have the meanings stated in the UCC; and

(p) provisions that require that a party or the parties "agree", "consent", "approve" or the like shall require that such agreement, consent or approval be specific and in writing, whether by written agreement, letter, approved minutes or otherwise.

ARTICLE 2

REVENUE INTEREST FINANCING

Section 2.1 Payment of the Investment Amount. Subject to the terms and conditions set forth herein, the Investors, severally but not jointly, shall make the following payments to the Company, free and clear, and without any deduction on account, of any withholding of any taxes:

(a) *Funding Date Payment*. On the Funding Date, subject to the satisfaction of Section 3.2, each Initial Investor shall pay (or cause to be paid) to the Company, severally but not jointly, the sum set forth opposite such Initial Investor's name in the column entitled "Funding Date Payment" on Schedule 1.1 attached hereto, by wire transfer of immediately available funds in U.S.

dollars to the account specified in the Funding Condition Satisfaction Notice (the aggregate of such amounts being the "Funding Date Payment").

(b) *Regulatory Milestone Payment*.

(i) Subject to Section 2.1(d), if the Regulatory Milestone (EE) Event occurs on or before March 31, 2024, then the Company shall notify the Investors in writing of the occurrence of the Regulatory Milestone (EE) Event within five Business Days of the occurrence thereof, and, no later than 15 Business Days after receipt by the Investors of such written notice, each Investor shall pay (or cause to be paid) to the Company, severally but not jointly, by wire transfer of immediately available funds in U.S. dollars as directed by the Company in writing concurrent with the furnishing of such written notice, (A) if such Investor is an Initial Investor, the sum set forth opposite such Initial Investor's name in the column entitled "Regulatory Milestone Payment" on Schedule 1.1 attached hereto plus any additional amount committed by such Investor as set forth in the written notice described in the last sentence of Section 2.1(b)(ii), and (B) if such Investor is an Additional Regulatory Milestone Investor, the portion of the Additional Regulatory Milestone Payment payable by such Additional Regulatory Milestone Investor. If the Regulatory Milestone (EE) Event does not occur on or before March 31, 2024, then no Investor shall be required to pay any amounts pursuant to this Section 2.1(b).

(ii) The Company shall have the right at any time prior to the occurrence of the Regulatory Milestone (EE) Event, but in no event later than December 31, 2022, to obtain a written commitment for additional funding from a Third Party (an "Additional Regulatory Milestone Investor") in an amount up to $15,000,000 (an "Additional Regulatory Milestone Payment"), to be payable in accordance with (and only in accordance with) Section 2.1(b)(i) (and subject to Section 2.1(d)), subject to such Additional Regulatory Milestone Investor executing a joinder to this Agreement and agreeing to be an "Investor" for all purposes hereunder, and subject to the Company's compliance with this Section 2.1(b)(ii). If the Company desires to obtain a commitment for an Additional Regulatory Milestone Payment from an Additional Regulatory Milestone Investor, then the Company shall first grant the Initial Investors the right to extend commitments for such Additional Regulatory Milestone Payment (pro rata in accordance with their Investment Amounts specified in Schedule 1.1 attached hereto) (the "Regulatory Milestone Payment Option") by delivering to the Initial Investors a written notice of such intended transaction with the Additional Regulatory Milestone Investor (a "ROFO Regulatory Notice"). Each such Initial Investor shall have 15 days after receipt of the ROFO Regulatory Notice (the "Regulatory Milestone ROFO Period") within which to exercise the Regulatory Milestone Payment Option by written notice to the Company, which may, at the sole discretion of each such Initial Investor, also provide a higher percentage of the Additional Regulatory Milestone Payment as to which such Initial Investor is willing to commit to the extent that one or more other Initial Investors do not timely exercise their Regulatory Milestone Payment Option. If (x) one or more of the Initial Investors do not exercise the Regulatory Milestone Payment Option within the Regulatory Milestone ROFO Period and (y) any Initial Investors who did exercise the Regulatory Milestone Payment Option within the Regulatory Milestone ROFO Period did not express a willingness to collectively commit to the full amount of the Additional Regulatory Milestone Payment, then the Company

shall have the right to obtain a commitment, for the portion of the Additional Regulatory Milestone Payment in respect of which the Initial Investors have not exercised the Regulatory Milestone Payment Option, from the Additional Regulatory Milestone Investor identified in the ROFO Regulatory Notice. Within two Business Days of the effectiveness of the commitments for an Additional Regulatory Milestone Payment pursuant to this Section 2.1(b)(ii), the Company shall provide a written notice to all Investors identifying each Investor committing to a portion of the Additional Regulatory Milestone Payment and each such Investor's portion (in U.S. dollars) of the Additional Regulatory Milestone Payment.

(c) *Sales Milestone Payment*. The Company shall have the right at any time prior to June 30, 2024 to obtain a written commitment for additional funding from a Third Party (an "Additional Sales Milestone Investor") in an amount up to $25,000,000 (a "Sales Milestone Payment"), subject to Section 2.1(d), subject to such Additional Sales Milestone Investor executing a joinder to this Agreement and agreeing to be an "Investor" for all purposes hereunder, and subject to the Company's compliance with this Section 2.1(c), such Sales Milestone Payment to be payable as described below in this Section 2.1(c). If the Company desires to obtain a commitment for a Sales Milestone Payment from an Additional Sales Milestone Investor, then the Company shall first grant the Initial Investors the right to extend commitments for such Sales Milestone Payment (pro rata in accordance with their Investment Amounts specified in Schedule 1.1 attached hereto) (the "Sales Milestone Payment Option") by delivering to the Initial Investors a written notice of such intended transaction with the Additional Sales Milestone Investor (a "ROFO Sales Notice"). Each such Initial Investor shall have 15 days after receipt of the ROFO Sales Notice (the "Sales Milestone ROFO Period") within which to exercise the Sales Milestone Payment Option by written notice to the Company, which may, at the sole discretion of each such Initial Investor, also provide a higher percentage of the Sales Milestone Payment as to which such Initial Investor is willing to commit to the extent that one or more other Initial Investors do not timely exercise their Sales Milestone Payment Option. If (x) one or more of the Initial Investors do not exercise the Sales Milestone Payment Option within the Sales Milestone ROFO Period and (y) any Initial Investors who did exercise the Sales Milestone Payment Option within the Sales Milestone ROFO Period did not express a willingness to collectively commit to the full amount of the Sales Milestone Payment, then the Company shall have the right to obtain a commitment, for the portion of the Sales Milestone Payment in respect of which the Initial Investors have not exercised the Sales Milestone Payment Option, from the Additional Sales Milestone Investor identified in the ROFO Sales Notice. Within two Business Days of the effectiveness of the commitments for a Sales Milestone Payment pursuant to this Section 2.1(c), the Company shall provide a written notice to all Investors identifying each Investor committing to a portion of the Sales Milestone Payment and each such Investor's portion (in U.S. dollars) of the Sales Milestone Payment (the "Sales Milestone Amount Notice"). To the extent that (x) the Company obtains one or more written commitments for the Sales Milestone Payment pursuant to this Section 2.1(c) (whether by an Additional Sales Milestone Investor and/or via exercise of the Sales Milestone Payment Option by an Initial Investor) and (y) the Sales Milestone Event occurs, then the Company shall notify the Investors in writing of the occurrence of the Sales Milestone Event within five Business Days of the occurrence thereof. Following receipt of such written notice, and subject to Section 2.1(d), each Investor that has provided such a written commitment for the Sales Milestone Payment shall pay (or cause to be paid) to the Company, severally but not jointly, by wire transfer of immediately available funds in U.S. dollars as directed by the Company in writing concurrent

with the furnishing of such written notice, no later than the later of (A) 15 Business Days after such Investor's receipt of such written notice and (B) June 30, 2024 (but in any event no earlier than May 1, 2024), the amount identified for such Investor in the Sales Milestone Amount Notice. If the Sales Milestone Event does not occur, then no Investor shall be required to pay any amounts pursuant to this Section 2.1(c).

(d) As a condition to the Investors' obligation to pay the amounts set forth in Section 2.1(b) and Section 2.1(c), on the respective intended dates of such respective intended payments, the Company shall deliver to the Investors a certificate of an officer of the Company stating that, as of such respective date, (i) the representations and warranties of the Company contained in Section 4.1(a), Section 4.1(b), Section 4.1(c), Section 4.1(d), Section 4.1(e), Section 4.1(i), Section 4.1(o), Section 4.1(p), Section 4.1(r) and Section 4.1(s) are true and correct in all material respects (except to the extent that such representations and warranties relate specifically to an earlier date, in which case they shall be true and correct in all material respects as of such earlier date, and except for such representations qualified by materiality or Material Adverse Effect, which shall be true and correct in all respects) and (ii) no Default or Event of Default shall have occurred and be continuing.

(e) Concurrent with the effectiveness of an Additional Investor's commitment hereunder, such Additional Investor shall deliver to the Company (i) a duly executed joinder to the Subordination Agreement, (ii) an Applicable Withholding Certificate and (iii) its Investor Account Information Document.

Section 2.2 Royalty Payments to Investors.

(a) In consideration of the Investors paying the Investment Amount hereunder from time to time pursuant to this Agreement, the Company shall pay to the Investors, by wire transfer of immediately available funds in U.S. dollars to each Investor Account, without any setoff or offset (subject, in each case, to Section 5.10), the Royalty Payment for each calendar quarter (commencing with the calendar quarter beginning April 1, 2022) promptly, but in any event no later than 45 calendar days after the end of each calendar quarter (each such date, a "Royalty Payment Date"), such that each Investor receives its Specified Percentage of such Royalty Payment on each such Royalty Payment Date (except that, to the extent any such payment to a particular Investor would result in such Investor having received two times its Investment Amount at a time when one or more other Investors shall not have received two times their respective Investment Amounts, then the remaining amounts shall be paid to such other Investors until such other Investors shall have received two times their respective Investment Amounts).

(b) A late fee of [***] over the Prime Rate (calculated on a per annum basis) will accrue on all unpaid amounts with respect to any Royalty Payment from the applicable Royalty Payment Date. The imposition and payment of a late fee shall not constitute a waiver of the Investors' rights with respect to such payment default. Such accrued late fee will be compounded annually. Payment of such accrued late fee shall accompany payment of the outstanding Royalty Payment.

(c) On or prior to each Royalty Payment Date, the Company shall provide to the Investors a written report (the "Royalty Report") setting forth in reasonable detail:

(i) the calculation of Net Sales for the applicable calendar quarter and calendar year to date, on a country-by-country basis within the Territory;

(ii) the calculation of License Milestone Revenue for the applicable calendar quarter and calendar year to date, on a country-by-country and Licensee-by-Licensee basis within the Territory (including a detailed breakdown of License Milestone Revenue consisting of upfront or other one-time payments, milestones and other fixed payments);

(iii) the calculation of License Royalty Revenue for the applicable calendar quarter and calendar year to date, on a country-by-country and Licensee-by-Licensee basis within the Territory;

(iv) for the applicable calendar quarter and calendar year to date, on a Product-by-Product and country-by-country basis within the Territory, the number of units of each Product sold by the Company, its Affiliates and each Licensee;

(v) for the applicable calendar quarter and calendar year to date, the applicable Royalty Rate and the calculation of the Royalty Payment payable to each Investor; and

(vi) for the applicable calendar quarter, on a Product-by-Product and country-by-country basis within the Territory, the foreign currency exchange rate used to calculate the Royalty Payment (which shall be the rate of exchange determined in a manner consistent with the Company's method for calculating rates of exchange in the preparation of the Company's annual financial statements in accordance with GAAP).

Section 2.3 True Up Payments; Cap Payment.

(a) If the aggregate Royalty Payments and any other payments by the Company to the Investors hereunder actually paid by the Company to the Investors through December 31, 2028 (the "First True Up Date Royalties") are less than the Investment Amount as of such date (the "First True Up Date Minimum"), then the Company shall pay to each Investor, by wire transfer of immediately available funds in U.S. dollars to each Investor Account, the difference between the First True Up Date Minimum and the First True Up Date Royalties (such difference, the "First True Up Payment"), such that each such Investor shall have been repaid its Investment Amount after giving effect to such First True Up Payment and all prior payments by the Company to such Investor hereunder. The First True Up Payment shall be paid in four (4) equal installments on each Royalty Payment Date for the quarters ending March 31, June 30, September 30, and December 31, 2029, respectively (subject to earlier prepayment of all or part of all or any such installments at the option of the Company), and such payments by the Company shall be fully creditable towards the Cap Amount.

(b) If the aggregate Royalty Payments and any other payments by the Company to the Investors hereunder actually paid by the Company to the Investors through December 31, 2037 (the "Second True Up Date Royalties") are less than 2.00 times the Investment Amount as of such date (the "Second True Up Date Minimum"), then the Company shall pay to each Investor, by wire transfer of immediately available funds in U.S. dollars to each Investor Account, the difference between the Second True Up Date Minimum and the Second True Up Date Royalties (such difference, the "Second True Up Payment" and, together with the First True Up Payment,

the "True Up Payments" and, each, a "True Up Payment"), such that each such Investor shall have been repaid 2.00 times its Investment Amount after giving effect to such Second True Up Payment and all prior payments by the Company to such Investor hereunder. The Second True Up Payment shall be paid in four (4) equal installments on each Royalty Payment Date for the quarters ending March 31, June 30, September 30, and December 31, 2038, respectively (subject to earlier prepayment of all or part of all or any such installments at the option of the Company), and such payments by the Company shall be fully creditable towards the Cap Amount.

(c) On any Business Day after the earlier of (i) April 30, 2024 and (ii) the date that the Regulatory Milestone Payment is made, the Company shall have the right, but not the obligation, to pay to the Investors, by wire transfer of immediately available funds in U.S. dollars to each Investor Account, the Cap Payment as of such Business Day. Except as otherwise specifically set forth herein, the Company shall not have the right to prepay its obligations hereunder prior to the earlier of (i) April 30, 2024 and (ii) the date that the Regulatory Milestone Payment is made.

Section 2.4 Event of Default.

(a) The Company shall notify the Investors in writing as soon as possible and in any event within two Business Days following the occurrence of any Default or Event of Default during the term of this Agreement, identifying the nature of such Default or Event of Default and whether or not such Default or Event of Default is in respect of, or is, a Bankruptcy Event of Default. If a Bankruptcy Event of Default occurs after the Effective Date, the Event of Default Fee shall automatically (without any action or notice by any of the Investors) be due and payable on the Event of Default Payment Date. If an Event of Default that is not a Bankruptcy Event of Default occurs and is continuing, then the Required Investors by written notice to the Issuer may declare that the Event of Default Fee shall be due and payable on the Event of Default Payment Date. The Event of Default Fee shall be fully earned on the Effective Date. Payment of the Event of Default Fee shall occur (i) in respect of a Bankruptcy Event of Default, immediately upon the occurrence of such Bankruptcy Event of Default, and (ii) in respect of any other Event of Default, on a Business Day specified in writing by the Company to the Investors, which date shall be within 10 Business Days from the date that the Required Investors provide the aforementioned written notice to the Company (the date of such payment pursuant to clause (i) above or clause (ii) above being referred to herein as the "Event of Default Payment Date"). On the Event of Default Payment Date, the Company shall pay to the Investors, by wire transfer of immediately available funds in U.S. dollars to each Investor Account, an amount equal to the Event of Default Fee as of the Event of Default Payment Date, such that each Investor shall have been repaid [***], [***], or [***], as the case may be, its Investment Amount after giving effect to the payment of such Event of Default Fee and all prior payments by the Company to such Investor hereunder.

(b) If an Event of Default has occurred and is continuing, any Investor or all the Investors acting as a group may, without further notice to the Company, exercise all remedies available at law or in equity in respect of the Revenue Interest Collateral, including directing the Company and its Affiliates to assemble and deliver the Revenue Interest Collateral as directed by such Investor or such group, notifying any Third Party holding such Revenue Interest Collateral (or portion thereof) of the Investor's or group's rights in such Revenue Interest Collateral (or portion) and directing such Third Party to transfer such Revenue Interest Collateral or make payments in respect thereof to such Investor or group (and the Company hereby consents to such

transfer or payment); provided, however, that if any Investor shall obtain any payment (whether voluntary, involuntary, through the exercise of any right of set-off, or otherwise) on account of the Revenue Interest Collateral that, when taken together with all other payments previously made to such Investor hereunder, would be in excess of its Specified Percentage when compared to all payments made to the other Investors hereunder (excluding the cost, if any, to recover such payment), such Investor shall promptly pay over to the other Investors such amounts as shall be necessary to cause such first Investor to share the excess payment ratably with each of the other Investors in accordance with their Specified Percentages.

Section 2.5 Change of Control Payments. The Company shall notify the Investors in writing at least [***] Business Days prior to the occurrence of any Pre-Regulatory Milestone Change of Control or Post-Regulatory Milestone Change of Control during the term of this Agreement. If a Pre-Regulatory Milestone Change of Control occurs during the term of this Agreement, the Company shall pay, on the Pre-Regulatory Milestone Change of Control Payment Date, to each Investor, by wire transfer of immediately available funds in U.S. dollars to each Investor Account, an amount equal to (x) the Pre-Regulatory Milestone Change of Control Price times (y) such Investor's Specified Percentage as of the Pre-Regulatory Milestone Change of Control Payment Date. If a Post-Regulatory Milestone Change of Control occurs during the term of this Agreement, the Company shall pay, on the Post-Regulatory Milestone Change of Control Payment Date, to the Investors, by wire transfer of immediately available funds in U.S. dollars to each Investor Account, an amount equal to the Post-Regulatory Milestone Change of Control Price as of the Post-Regulatory Milestone Change of Control Payment Date, such that each such Investor shall have been repaid [***] after giving effect to the payment of such Post-Regulatory Milestone Change of Control Price and all prior payments by the Company to such Investor hereunder. The Post-Regulatory Milestone Change of Control Price shall be fully creditable towards the Cap Amount.

Section 2.6 No Assumed Obligations, Etc. Notwithstanding any provision in this Agreement to the contrary, no Investor is assuming any liability or obligation of the Company or any other Investor hereunder of whatever nature, whether presently in existence or arising or asserted hereafter. All such liabilities and obligations shall be retained by and remain liabilities of the Company. The Company has sole authority and responsibility for the research, development and Commercialization of the Product.

Section 2.7 Security Interest.

(a) To secure the payment, observance and performance of the Company's obligations hereunder, the Company hereby grants to the Investors a continuing security interest in all of the Company's right, title and interest in and to the Revenue Interests, including the accounts, payment intangibles, instruments, chattel paper, check, money and investment property (each, as defined in Article 9 of the UCC) solely to the extent any of the foregoing evidence or constitute the Revenue Interests, and all proceeds thereof, including cash proceeds and noncash proceeds (each, as defined in Article 9 of the UCC), the deposit account described in Section 2.7(b), all funds deposited in or credited to such deposit account, and copies of the books and records of the Company related to the Revenue Interests and such deposit account (all of the foregoing items in which a security interest is granted or purported to be granted, collectively, the "Revenue Interest Collateral"), subject to the provisions of the Subordination Agreement, if any. The Company authorizes the

Investors, from and after the Effective Date, to file such financing statements and continuation statements with respect to such financing statements when applicable, in such manner and such jurisdictions as are necessary or appropriate to perfect such security interest. Notwithstanding such authorization, the Company shall ensure, at the Company's own expense, that the Investors' security interest in the Revenue Interest Collateral is and remains perfected no later than the Funding Date and at all times thereafter until the termination of this Agreement in accordance with ARTICLE 8. The Company shall provide the Investors written evidence of such perfection, in form and substance satisfactory to the Investors, (x) promptly following the Effective Date, (y) at least 90 days prior to the fifth anniversary of the Effective Date and each fifth anniversary thereafter until the termination of this Agreement in accordance with ARTICLE 8 and (z) at other times upon the reasonable request of any Investor. The provision of such evidence shall be deemed to be a representation and warranty by the Company as of the date such evidence is provided that all actions necessary to perfect the Investors' security interest in the Revenue Interest Collateral have been taken and that no other creditor has a security interest in the Revenue Interest Collateral except for a Permitted Lien of the type described in clause (a) of the definition thereof and subject to the provisions of the Subordination Agreement, if any. Notwithstanding the foregoing, the Company shall have no obligation to file any amendment to any financing statement to reflect a change in any Investor's name or address and shall not be deemed to represent and warrant to any such change.

(b) No later than June 30, 2022 (or such later date as the Required Investors may agree in writing), the Company shall, at the Company's own expense and at all times thereafter until the termination of this Agreement in accordance with ARTICLE 8, (i) establish and maintain a separate deposit account with a financial institution satisfactory to the Required Investors, (ii) cause such deposit account to be and remain subject to an agreement of the type described in Section 9-104(a)(2) of the UCC among the Company, such financial institution and the Investors (or an agent, trustee or representative on their behalf) in form and substance satisfactory to the Required Investors and (iii) deposit, on or prior to each Royalty Payment Date, an amount equal to the Royalty Payment for the applicable calendar quarter in such deposit account; provided, however, that, if at any time the Company's cash and cash equivalents becomes less than the greater of (x) [***] and (y) [***], the Company shall deposit into such deposit account within two Business Days of such occurrence, and at least monthly thereafter until the termination of this Agreement, an amount of cash equal to the Royalty Payments estimated in good faith by the Company to be payable on the next Royalty Payment Date in respect of the portion of the applicable calendar quarter elapsed prior to such date of determination. The funds on deposit in or credited to such deposit account may be used to make the Royalty Payments to the Investors.

Section 2.8 Mandatory Payment Obligations. The Company's obligations to pay the True Up Payments, the Event of Default Fee, the Pre-Regulatory Milestone Change of Control Price and the Post-Regulatory Milestone Change of Control Price as they become due under this Agreement shall be absolute. The Company agrees that the True Up Payments, the Event of Default Fee, the Pre-Regulatory Milestone Change of Control Price and the Post-Regulatory Milestone Change of Control Price shall be presumed to be the liquidated damages sustained by each Investor, and the Company agrees that such presumption is reasonable under the circumstances currently existing. The Company expressly waives (to the fullest extent it may lawfully do so) the provisions of any present or future applicable law that prohibits or may prohibit the collection of the True Up Payments, the Event of Default Fee, the Pre-Regulatory Milestone

Change of Control Price or the Post-Regulatory Milestone Change of Control Price by the Investors. The Company agrees (to the fullest extent that it may lawfully do so) that (i) each of the True Up Payments, the Event of Default Fee, the Pre-Regulatory Milestone Change of Control Price and the Post-Regulatory Milestone Change of Control Price is reasonable and is the product of an arm's length transaction between sophisticated business people, ably represented by counsel, (ii) each of the True Up Payments, the Event of Default Fee, the Pre-Regulatory Milestone Change of Control Price and the Post-Regulatory Milestone Change of Control Price shall be payable notwithstanding the then-prevailing market rates at the time payment is made, (iii) there has been a course of conduct between the Investors and the Company giving specific consideration in the transactions contemplated hereby for such agreement to pay the True Up Payments as a charge (and not interest) to the extent they become due, the Event of Default Fee as a charge (and not interest) in the event of an Event of Default, the Pre-Regulatory Milestone Change of Control Price as a charge (and not interest) in the event of a Pre-Regulatory Milestone Change of Control and the Post-Regulatory Milestone Change of Control Price as a charge (and not interest) in the event of a Post-Regulatory Milestone Change of Control and (iv) the Company shall be estopped from claiming differently than as agreed to in this Section 2.8. The Company expressly acknowledges that its agreement to pay each of the True Up Payments, the Event of Default Fee, the Pre-Regulatory Milestone Change of Control Price and the Post-Regulatory Milestone Change of Control Price to the Investors as herein described is on the Effective Date, and will continue to be, a material inducement to each Investor to pay its portion of the Investment Amount.

ARTICLE 3

EFFECTIVE DATE; FUNDING DATE

Section 3.1 Effective Date Deliverables. On the Effective Date:

(a) the Company shall deliver to the Initial Investors the Funding Condition Satisfaction Notice;

(b) the Company shall deliver or cause to be delivered to the Initial Investors an opinion of Morgan, Lewis & Bockius LLP, special counsel to the Company, dated the Effective Date and in form and substance satisfactory to the Initial Investors and their counsel;

(c) the Company shall deliver to the Initial Investors a certificate of an officer of the Company, dated the Effective Date, (i) certifying as to the Company's organizational documents and the attached resolutions adopted by the board of directors of the Company authorizing the transactions contemplated by the Transaction Documents and (ii) setting forth the incumbency of the officer or officers of the Company who have executed and delivered the Transaction Documents, including therein a signature specimen of each such officer;

(d) the Company shall deliver to the Initial Investors a written consent from Hercules in which Hercules consents to the transactions contemplated hereby, which shall be substantially in the form attached hereto as Exhibit B (the "Hercules Consent");

(e) each Initial Investor shall deliver a duly executed counterpart of the Subordination Agreement to the Company, and the Company shall deliver to the Initial Investors a fully executed

copy of the Subordination Agreement containing the executed counterparts of the Company, the Initial Investors and Hercules;

(f) each Initial Investor shall have delivered to the Company an Applicable Withholding Certificate; and

(g) each Initial Investor shall have delivered to the Company its Investor Account Information Document.

Section 3.2 Funding Date Deliverables. On the Funding Date, as conditions to the Initial Investors' obligation to pay the Funding Date Payment:

(a) the Company shall deliver to the Initial Investors a certificate of an officer of the Company, dated the Funding Date, stating that, as of the Funding Date, (i) the representations and warranties of the Company in the Transaction Documents to which the Company is party are true and correct in all material respects (except to the extent that such representations and warranties relate specifically to an earlier date, in which case they shall be true and correct in all material respects as of such earlier date, and except for such representations qualified by materiality or Material Adverse Effect, which shall be true and correct in all respects) and (ii) no Default or Event of Default shall have occurred and be continuing; and

(b) the Company shall have filed one or more financing statements in such manner and such jurisdictions as are necessary or appropriate to perfect the Investors' security interest in the Revenue Interest Collateral as described in Section 2.7(a) and shall have provided evidence of such filings to the Initial Investors.

ARTICLE 4

REPRESENTATIONS AND WARRANTIES

Section 4.1 Company's Representations and Warranties. The Company represents and warrants to the Investors that:

(a) Existence; Good Standing. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware. The Company is duly licensed or qualified to do business and is in corporate good standing in each jurisdiction in which the nature of the business conducted by it or the character or location of the properties and assets owned, leased or operated by it makes such licensing or qualification necessary, except where the failure to be so licensed or qualified and in corporate good standing has not and would not reasonably be expected to have, either individually or in the aggregate, a Material Adverse Effect.

(b) Authorization. The Company has all requisite corporate power and authority to execute, deliver and perform its obligations under the Transaction Documents. The execution, delivery and performance of the Transaction Documents, and the consummation of the transactions contemplated hereby and thereby, have been duly authorized by all necessary corporate action on the part of the Company.

(c) Enforceability. The Transaction Documents have been duly executed and delivered by an authorized officer of the Company and constitute the valid and binding obligations of the Company, enforceable against the Company in accordance with the terms of each respective Transaction Document, except as may be limited by applicable Bankruptcy Laws or by general principles of equity (whether considered in a proceeding in equity or at law).

(d) No Conflicts. The execution, delivery and performance by the Company of the Transaction Documents and the consummation of the transactions contemplated hereby and thereby do not and will not (i) contravene or conflict with the certificate of incorporation or bylaws of the Company, (ii) contravene or conflict with or constitute a material default or violation under any law binding upon or applicable to the Company or the Revenue Interests or (iii) contravene or conflict with or constitute a material default under the Hercules Loan Agreement (after giving effect to the Hercules Consent), the Takeda License or any other agreement, Judgment or Marketing Approval binding upon or applicable to the Company or the Revenue Interests.

(e) Consents. Except for the Hercules Consent, the UCC financing statements contemplated by Section 2.7(a), or any filings required by the federal securities laws or stock exchange rules, no consent, approval, license, order, authorization, registration, declaration or filing with or of any Governmental Entity or other Person (including, for the avoidance of doubt, Takeda with respect to the Takeda License) is required to be done or obtained by the Company in connection with (i) the execution and delivery by the Company of the Transaction Documents to which it is party, (ii) the performance by the Company of its obligations under the Transaction Documents to which it is party or (iii) the consummation by the Company of any of the transactions contemplated by the Transaction Documents to which it is party.

(f) No Litigation. Neither the Company nor any of its Subsidiaries is a party to, or has received any written notice of, any action, suit, investigation or proceeding pending before any Governmental Entity and, to the Knowledge of the Company, no such action, suit, investigation or proceeding has been threatened against the Company, that, individually or in the aggregate, has had or would, if determined adversely, reasonably be expected to have a Material Adverse Effect.

(g) Compliance.

(i) All applications, submissions, information and data related to a Product submitted or utilized as the basis for any request to any Regulatory Authority by or on behalf of the Company were true and correct in all material respects as of the date of such submission or request, and, to the Knowledge of the Company any material updates, changes, corrections or modifications to such applications, submissions, information or data required under applicable laws or regulations have been submitted to the necessary Regulatory Authorities.

(ii) Neither the Company nor any of its Subsidiaries has committed any act, made any statement or failed to make any statement that would reasonably be expected to provide a basis for the FDA to invoke its policy with respect to "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities", 56 Fed. Reg. 46191 (September 10, 1991) (the "FDA Application Integrity Policy") and any amendments thereto, or any similar policies by the FDA or any other Regulatory Authority, set forth in any applicable laws or

regulations. Neither the Company, nor, to the Knowledge of the Company, any of its officers, employees, contractors or agents is the subject of any pending or, to the Knowledge of the Company, threatened investigation by the FDA or any other Regulatory Authority that could reasonably result in the invocation of the FDA Application Integrity Policy or any similar policy by any Regulatory Authority.

(iii) None of the Company, any of its Subsidiaries and, to the Company's Knowledge, any Third Party manufacturer named in any NDA for any Product, has received from the FDA a "Warning Letter", Form FDA-483, "Untitled Letter", or similar material written correspondence or notice alleging violations of applicable laws and regulations enforced by the FDA, or any comparable material written correspondence from any other Regulatory Authority with regard to any Product or the manufacture, processing, packaging or holding thereof, the subject of which communication is unresolved and if determined adversely to the Company or such Subsidiary would, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

(iv) The Company possesses all material permits, licenses, registrations, certificates, authorizations, orders and approvals from the appropriate federal, state or foreign regulatory authorities necessary to conduct its business, including all such material permits, licenses, registrations, certificates, authorizations, orders and approvals required by the FDA or any other Regulatory Authority (collectively, "Permits"). The Company has not received any written notice of proceedings relating to the suspension, modification, revocation or cancellation of any Permit. Neither the Company nor, to the Knowledge of the Company, any officer, employee or agent of the Company has been convicted of any crime or engaged in any conduct that has previously caused or would reasonably be expected to result in (A) disqualification or debarment by the FDA under 21 U.S.C. Sections 335(a) or (b), or any similar law, rule or regulation of any other Governmental Entity, (B) debarment, suspension, or exclusion under any federal healthcare programs or by the General Services Administration, or (C) exclusion under 42 U.S.C. Section 1320a-7 or any similar law, rule or regulation administered by any Regulatory Authority. To the Knowledge of the Company, neither the Company nor any of its officers, employees, contractors or agents has made an untrue statement of material fact on, or material omissions from, any notifications, applications, approvals, reports and other submissions to the FDA or any similar Regulatory Authority.

(v) The Company is and has been in compliance with all applicable laws administered or issued by the FDA or any similar Regulatory Authority, including the FD&C Act, applicable requirements in FDA regulations, and any orders issued by the FDA or similar Regulatory Authorities, and all other laws regarding ownership, developing, testing, manufacturing, packaging, storage, import, export, disposal, marketing, distributing, promoting, and complaint handling or adverse event reporting for the products of the Company, except to the extent that such failure to comply with such applicable laws would not reasonably be expected to result in a Material Adverse Effect.

(h) Licenses.

(i) In-Licenses. Except for the Takeda License, (i) there are no In-Licenses and (ii) there are no other contracts, agreements, commitments or undertakings pursuant to which the Company has rights under any patent or intellectual property rights of any Third Party that are material to the Commercialization of the Products in the Territory. A true, correct and complete copy of the Takeda License has been provided to the Investors by the Company in a data room available to the Investors. Other than as provided in the data room, neither the Company nor Takeda has made or entered into any amendment, supplement or modification to, or granted any waiver under any provision of, the Takeda License.

(ii) Out-Licenses. There are no Out-Licenses.

(iii) Validity and Enforceability of Takeda License. The Takeda License is a valid and binding obligation of the Company and Takeda. The Takeda License is enforceable against the Company and, to the Knowledge of the Company, Takeda in accordance with its terms except as may be limited by applicable Bankruptcy Laws or by general principles of equity (whether considered in a proceeding in equity or at law). The Company has not received any written notice in connection with the Takeda License challenging the validity, enforceability or interpretation of any provision thereof.

(iv) No Termination. The Company has not (A) given notice to Takeda of the termination of the Takeda License (whether in whole or in part) or any notice to Takeda expressing any intention or desire to terminate the Takeda License or (B) received from Takeda any written notice of termination of the Takeda License (whether in whole or in part) or any written notice from Takeda expressing any intention or desire to terminate the Takeda License.

(v) No Breaches or Defaults. No material breach or default under any provision of the Takeda License exists or has occurred, either by the Company or, to the Knowledge of the Company, by Takeda, and there is no event that upon notice or the passage of time, or both, would reasonably be expected to give rise to any breach or default either by the Company or, to the Knowledge of the Company, by Takeda.

(vi) Payments Made. The Company has made all payments to Takeda that are required to be made under the Takeda License as of the date hereof.

(vii) No Assignments. The Company has not consented to any assignment by Takeda of any of its rights or obligations under the Takeda License and, to the Knowledge of the Company, Takeda has not assigned any of its rights or obligations under the Takeda License to any Person.

(viii) No Indemnification Claims. The Company has not notified any Person of any claims for indemnification under the Takeda License nor has the Company received any claims for indemnification under the Takeda License.

(ix) No Infringement. Neither the Company nor any of its Subsidiaries has received any written notice from, or given any written notice to, Takeda regarding any infringement of any of the Existing Patent Rights licensed thereunder.

(i) No Liens. None of the property or assets, in each case, that specifically relate to the Products in the Territory, including Intellectual Property Product Rights and Marketing Approvals, of the Company or any of its Subsidiaries is subject to any Lien, except for a Permitted Lien. The Revenue Interests are not subject to any Lien, except for a Lien of the type described in clause (a) or clause (g) of the definition of Permitted Liens.

(j) Supply. The Company has on hand or has made adequate provisions to secure sufficient clinical quantities of Products to complete all clinical trials and all activities required for Marketing Approvals, in each case, that are ongoing as of the date hereof. The Company has on hand or has made adequate provisions to secure sufficient quantities of Product to support the commercial launch, and Commercialization of, Product in the United States.

(k) Intellectual Property.

(i) Schedule 4.1(k)(i)(A) attached hereto lists all of the currently existing patents and patent applications included within the Patent Rights (the "Existing Patent Rights"). Schedule 4.1(k)(i)(A) attached hereto specifies as to each listed patent or patent application (i) the application number, (ii) the patent or registration number, if any, (iii) the jurisdictions by or in which each such patent has issued as a patent or such patent application has been filed, (iv) the assignee/registered owner thereof and (v) the scheduled expiration date thereof.

(ii) Neither the Company nor any of its Subsidiaries is a party to any pending and, to the Knowledge of the Company, there is no threatened, litigation, interference, reexamination, opposition, inter partes review, post grant review or like procedure involving any of the Existing Patent Rights.

(iii) All of the issued patents within the Existing Patent Rights are (A) to the Knowledge of the Company, valid and enforceable, and (B) in full force and effect. None of the issued patents within the Existing Patent Rights have lapsed, expired or otherwise terminated. Neither the Company nor any of its Subsidiaries has received any written notice relating to the lapse, expiration or other termination of any of the issued patents within the Existing Patent Rights, and neither the Company nor its Subsidiaries has received any written legal opinion that alleges that, an issued patent within any of the Existing Patent Rights is invalid or unenforceable.

(iv) Neither the Company nor any of its Subsidiaries has received any written notice that there is any, and, to the Knowledge of the Company, there is no, Person who is or claims to be an inventor under any of the Existing Patent Rights who is not a named inventor thereof.

(v) Neither the Company nor its Affiliates has received any written notice of any claim by any Person challenging the inventorship or ownership of, the rights of the Company in and to, or the patentability, validity or enforceability of, any of the Existing Patent Rights, or asserting that the development, manufacture, importation, sale, offer for sale or use of any Product infringes, misappropriates or otherwise violates or will infringe,

misappropriate or otherwise violate such Person's Patent Rights or other intellectual property rights.

(vi) To the Knowledge of the Company, the discovery, development manufacture, importation, sale, offer for sale or use of each Product, in each case in the form such Product exists as of the date hereof and as such activity is currently contemplated by the Company, has not and will not, infringe, misappropriate or otherwise violate any Patent Rights or other intellectual property rights owned by any Third Party.

(vii) To the Knowledge of the Company, no Person has infringed, misappropriated or otherwise violated, or is infringing, misappropriating or otherwise violating, any of the Intellectual Property Product Rights.

(viii) The Company has paid all maintenance fees, annuities and like payments required as of the date hereof with respect to each of the Existing Patent Rights.

(l) Indebtedness. Schedule 4.1(l) attached hereto sets forth a complete list of the outstanding Indebtedness of the Company and its Subsidiaries in excess of $1,000,000 in the aggregate.

(m) Lien Related Representation and Warranties. The Company's exact legal name is, and since March 13, 2019, has been "Phathom Pharmaceuticals, Inc." and prior to that, the exact legal name was North Bridge IV, Inc. at the time of incorporation. The Company is, and has been since its incorporation, incorporated in the State of Delaware.

(n) Taxes. (i) The Company and its Subsidiaries have filed all federal and state income Tax returns and other material Tax returns that they are required to file, (ii) the Company and its Subsidiaries have duly paid all federal and state income Taxes and other material Taxes or installments thereof that they are required to pay, except Taxes being contested in good faith by appropriate proceedings and for which the Company and its Subsidiaries maintain adequate reserves in accordance with GAAP, and (iii) no proposed or pending Tax assessments, deficiencies, audits or other proceedings with respect to the Company or any Subsidiary have had, or could reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(o) Brokers' Fees. Except for Morgan Stanley & Co. LLC, there is no investment banker, broker, finder, financial advisor or other intermediary who has been retained by or is authorized to act on behalf of the Company who might be entitled to any fee or commission in connection with the transactions contemplated by the Transaction Documents.

(p) Ownership. The Company is the exclusive owner of the entire right, title (legal and equitable) and interest in, to and under the Revenue Interests and has good and valid title thereto.

(q) No Material Adverse Effect. No Material Adverse Effect has occurred and is continuing, and, to the Knowledge of the Company, no event or circumstance is likely to occur that is reasonably expected to result in a Material Adverse Effect.

(r) Solvency. Upon consummation of the transactions contemplated by the Transaction Documents and the application of the proceeds therefrom, (i) the fair saleable value of the

Company's assets will be greater than the sum of its Indebtedness, liabilities and other obligations, including contingent liabilities, (ii) the present fair saleable value of the Company's assets will be greater than the amount that would be required to pay its probable liabilities on its existing Indebtedness, liabilities and other obligations, including contingent liabilities, as they become absolute and matured, (iii) the Company will be able to realize upon its assets and pay its Indebtedness, liabilities and other obligations, including contingent obligations, as they mature, (iv) the Company will not be rendered insolvent (within the meaning of any applicable law or otherwise), will not have unreasonably small capital with which to engage in its business and will not be unable to pay its Indebtedness as it matures, and (v) the Company will not have become subject to any Voluntary Bankruptcy or Involuntary Bankruptcy. No step has been taken by the Company or, to the Knowledge of the Company, any other Person, to make the Company subject to a Voluntary Bankruptcy or Involuntary Bankruptcy.

(s) No Subordination. The claims and rights of the Investors created by any Transaction Document in and to the Revenue Interests are not and shall not be subordinated to any creditor of the Company, except as may be set forth in the Subordination Agreement.

Section 4.2 Investors' Representations and Warranties. Each Investor hereby represents and warrants, severally and not jointly, to the Company that:

(a) Existence; Good Standing. Such Investor is duly formed or organized and, to the extent such concepts exist in its jurisdiction of organization, validly existing and in good standing under the laws of its jurisdiction of organization.

(b) Authorization. Such Investor has the requisite right, power and authority to execute, deliver and perform its obligations under the Transaction Documents. The execution, delivery and performance of the Transaction Documents, and the consummation of the transactions contemplated hereby and thereby, have been duly authorized by all necessary action on the part of such Investor.

(c) Enforceability. The Transaction Documents have been duly executed and delivered by an authorized person of such Investor and constitute the valid and binding obligations of such Investor, enforceable against such Investor in accordance with the terms of each respective Transaction Document, except as may be limited by applicable Bankruptcy Laws or by general principles of equity (whether considered in a proceeding in equity or at law).

(d) No Conflicts. The execution, delivery and performance by such Investor of the Transaction Documents do not and will not (i) contravene or conflict with the organizational documents of such Investor, (ii) contravene or conflict with or constitute a default under any material provision of any law binding upon or applicable to such Investor or (iii) contravene or conflict with or constitute a default under any material contract or other material agreement or Judgment binding upon or applicable to such Investor.

(e) Consents. Except for any filings required by the federal securities laws or stock exchange rules, no consent, approval, license, order, authorization, registration, declaration or filing with or of any Governmental Entity or other Person is required to be done or obtained by such Investor in connection with (i) the execution and delivery by such Investor of the Transaction

Documents, (ii) the performance by such Investor of its obligations under the Transaction Documents or (iii) the consummation by such Investor of any of the transactions contemplated by the Transaction Documents.

(f) No Litigation. There is no action, suit, investigation or proceeding pending or, to the knowledge of such Investor, threatened before any Governmental Entity to which such Investor is a party that would, if determined adversely, reasonably be expected to prevent or materially and adversely affect the ability of such Investor to perform its obligations under the Transaction Documents.

(g) Financing. Such Investor has or will have sufficient cash to pay the sums set forth opposite such Investor's name in Schedule 1.1 attached hereto at the respective dates on which such payments are required to be made hereunder. Such Investor acknowledges that its obligations under this Agreement are not contingent on obtaining financing.

(h) Brokers' Fees. There is no investment banker, broker, finder, financial advisor or other intermediary who has been retained by or is authorized to act on behalf of such Initial Investor who might be entitled to any fee or commission in connection with the transactions contemplated by the Transaction Documents.

Section 4.3 No Implied Representations and Warranties. Each Investor, severally but not jointly, acknowledges and agrees that, other than the express representations and warranties of the Company specifically contained in this ARTICLE 4, (a) there are no representations or warranties of the Company either expressed or implied with respect to the Patent Rights or Royalty Payments and that such Investor does not rely on, and shall have no remedies in respect of, any representation or warranty not specifically set forth in this ARTICLE 4, and all other representations and warranties are hereby expressly disclaimed, and (b) nothing contained herein guarantees that sales of the Products or the aggregate Royalty Payments due to the Investors will achieve any specific amounts. Notwithstanding the foregoing, claims for fraud, gross negligence, or willful misconduct shall not be waived or limited in any way by this Section 4.3. Except for the Revenue Interests and the Investors' rights under Section 5.4(d), each Investor, severally but not jointly, further acknowledges and agrees that no licenses or assignments under any assets (including the Patent Rights or any other intellectual property) of the Company and its Affiliates are granted pursuant to this Agreement, including by implication, estoppel, exhaustion or otherwise.

ARTICLE 5

COVENANTS

Section 5.1 Additional Reporting; Update Meetings.

(a) From and after the Effective Date, the Company shall provide each Investor with such information regarding the clinical development and Commercialization of Products as such Investor may reasonably request from time to time. All such reports, and the Confidential Information contained therein, shall be the Confidential Information of the Company and subject to the obligations of confidentiality set forth in ARTICLE 7.

(b) From and after the Effective Date, the Investors shall be entitled to a quarterly update call or meeting (via teleconference or videoconference or at a location reasonably designated by the Company) to discuss (i) the Royalty Reports, (ii) the progress of Commercialization efforts made by the Company with respect to any Product in the Territory, (iii) the status and the historical and potential performance of the Products in the Territory, (iv) any regulatory developments with respect to any Product in the Territory and/or (v) such other matters that the Investors deem reasonably appropriate. Any information disclosed by any party during such update meetings or calls or provided to a party pursuant to its request shall be considered "Confidential Information" of the disclosing party subject to the terms of ARTICLE 7.

(c) Promptly (but in no event more than 10 Business Days) after the Company receives from any Third Party any written notice, demand, certificate, offer, proposal, correspondence, report or other communication relating to the Takeda License, the Patent Rights, the Revenue Interests or the Products, which notice, demand, certificate, offer, proposal, correspondence, report or other communication would, or relates to any event or circumstance that would, reasonably be expected to have a Material Adverse Effect, the Company shall provide to the Investors written notice thereof (including reasonable details to enable the Investors to understand the applicable matters involved, the facts, events or circumstances that gave rise to such matters, any relief or remedies being sought, any proposed corrective action to be taken, and relevant timelines for any exercise of remedies or for any proposed corrective action), together with a copy of such written notice, demand, certificate, offer, proposal, correspondence, report or other communication.

(d) Each of the Company and each Investor shall provide the other parties hereto with written notice as promptly as practicable (and in any event within 10 Business Days) after the Company or such Investor (as applicable) becomes aware of any of the following: (i) any breach or default by the Company or such Investor (as applicable) of any covenant, agreement or other provision of any of the Transaction Documents to which it is party; (ii) any representation or warranty made by the Company or such Investor (as applicable) in any of the Transaction Documents to which it is party shall prove to be untrue, inaccurate or incomplete in any respect on the date as of which made; or (iii) any change, effect, event, occurrence, state of facts, development or condition that would reasonably be expected to result in a Material Adverse Effect.

Section 5.2 Disclosures. Except for a press release previously approved in form and substance by the Company and the Investors or any other public announcement using substantially the same text as such press release, neither the Investors nor the Company shall, and each party hereto shall cause its respective Representatives, Affiliates and Affiliates' Representatives not to issue a press release or other public announcement or otherwise make any public disclosure with respect to the Transaction Documents, or the subject matter or any terms hereof or thereof (including the identity of any of the parties hereto), without the prior written consent of the other parties hereto (which consent shall not be unreasonably withheld or delayed), except as may be required by applicable law or stock exchange rule (in which case the party hereto required to make the press release or other public announcement or disclosure shall allow the other parties hereto reasonable time to comment on, and, if applicable, reasonably direct the disclosing party to seek confidential treatment in respect of portions of, such press release or other public announcement or disclosure in advance of such issuance) or except as permitted by Section 7.2.

Section 5.3 Inspections and Audits of the Company. Following the Effective Date, upon at least [***] Business Days' written notice and during normal business hours, no more frequently than once per calendar year, the Investors may cause an inspection and/or audit by an independent public accounting firm to be made of the Company's books of account for the [***] calendar years prior to the audit for the purpose of determining the correctness of the calculation of the Royalty Payments under this Agreement; provided, however, that no calendar year may be subject to more than one audit unless an Event of Default has occurred and is continuing. Upon the Investors' reasonable request, no more frequently than once per calendar year while any Out-License remains in effect, the Company shall use Commercially Reasonable Efforts to exercise any rights it may have under any Out-License relating to a Product to cause an inspection and/or audit by an independent public accounting firm to be made of the books of account of any counterparty thereto for the purpose of determining the correctness of the calculation of the Royalty Payments under this Agreement. The Company shall promptly notify the Investors in writing if it initiates an inspection and/or audit of the books of accounts of any counterparty to an Out-License to the extent such inspection and/or audit is related to the Royalty Payments, and shall provide to the Investors a copy of any report relating thereto within [***] Business Days of receipt thereof, which copy may be redacted; provided, that any redactions to such report shall not include any information necessary to determine the correctness of the calculation of the Royalty Payments made under this Agreement. All of the out-of-pocket expenses of any inspection or audit requested by the Investors hereunder (including the fees and expenses of such independent public accounting firm designated for such purpose) otherwise payable by the Company shall be borne solely by the Investors, unless the independent public accounting firm determines that Royalty Payments previously paid to the Investors during the period of the audit were underpaid by an amount greater than [***] of the Royalty Payments actually paid during such period, in which case such expenses shall be borne by the Company. Any such accounting firm or Company shall not disclose the confidential information of the Company or any such Licensee relating to a Product to the Investors, except to the extent such disclosure is necessary to determine the correctness of Royalty Payments or otherwise would be included in a Royalty Report. All information obtained by the Investors as a result of any such inspection or audit shall be Confidential Information subject to ARTICLE 7. If any audit discloses any underpayments by the Company to the Investors, then such underpayment, together with the late fees contemplated by Section 2.2(b), shall be paid by the Company to the Investors (in accordance with their Specified Percentages in the same manner as provided in Section 2.2(a)) within [***] calendar days of such underpayment being so disclosed. If any audit discloses any overpayments by the Company to the Investors, then the Company shall have the right to credit the amount of the overpayment against each subsequent quarterly Royalty Payment due to the Investors until the overpayment has been fully applied.

Section 5.4 Intellectual Property Matters.

(a) The Company shall provide to the Investors a copy of any written notice received by the Company from a Third Party alleging or claiming that the making, having made, using, importing, offering for sale or selling of a Product in the Territory infringes or misappropriates any patent or other intellectual property rights of such Third Party, together with copies of material correspondence sent or received by the Company related thereto, as soon as practicable and in any event not more than [***] Business Days following such delivery or receipt.

(b) The Company shall promptly inform the Investors of any infringement by a Third Party of any Patent Right of which any of the individuals named in the definition of "Knowledge of the Company" (or the successors of such Person at the Company) becomes aware. Without limiting the foregoing, the Company shall provide to the Investors a copy of any written notice of any suspected infringement of any Patent Rights delivered or received by the Company, as well as copies of material correspondence related thereto, as soon as practicable and in any event not more than [***] Business Days following such delivery or receipt.

(c) Within [***] Business Days following initiating, or permitting Takeda to initiate, an enforcement action regarding any suspected infringement by a Third Party of any Patent Right, the Company shall provide the Investors with written notice of such enforcement action.

(d) If the Company recovers monetary damages from a Third Party in an action brought for such Third Party's infringement of any Patent Rights relating to a Product, where such damages, whether in the form of judgment or settlement, are awarded for such infringement of such Patent Rights, (i) such recovery will be allocated first to the reimbursement of any expenses incurred by the Company (or any party to an In-License or Permitted License of such Patent Rights entitled to such reimbursement under any such In-License or Permitted License) in bringing such action (including all reasonable attorney's fees), (ii) any remaining amounts will be reduced, if applicable, to comply with allocation of recovered damages with licensors of such Patent Rights required under any In-Licenses or Permitted Licenses of such Patent Rights under any Out-Licenses, if any, and (iii) any residual amount of such damages after application of (i) and (ii) will be treated as Net Sales, License Milestone Revenue or License Royalty Revenue, as applicable.

Section 5.5 In-Licenses.

(a) The Company shall promptly (and in any event within [***] Business Days following execution thereof) provide the Investors with (i) executed copies of any In-License entered into by the Company or its Affiliates, and (ii) executed copies of each amendment, supplement, modification or written waiver of any provision of any In-License.

(b) The Company shall use Commercially Reasonable Efforts to comply in all material respects with its obligations under any In-Licenses it enters into and shall not take any action or forego any action that would reasonably be expected to result in a material breach thereof. Promptly, and in any event within [***] Business Days, after receipt of any written or oral notice by the Company or any of its Affiliates with respect to an alleged material breach under any In-License, the Company shall provide the Investors a copy (or, in the case of oral notices, a written summary) thereof. The Company shall use its Commercially Reasonable Efforts to cure any material breaches by it under any In-License and shall give written notice to the Investors upon curing any such breach. The Company shall provide the Investors with written notice following (and in any event within [***] Business Days of) becoming aware of a counterparty's material breach of its obligations under any In-License. The Company shall not terminate (i) any In-License without providing the Investors prior written notice or (ii) the Takeda License. The Company shall not make or enter into any amendment, supplement or modification to, or grant any waiver under any provision of, the Takeda License without the Investors' prior written consent (which consent shall not be unreasonably withheld, conditioned or delayed) to the extent that such amendment, supplement, modification or grant would reasonably be expected to have a material adverse effect

on the timing, amount or duration of the Royalty Payments. Promptly, and in any event within 10 Business Days following the Company's notice to a counterparty to any In-License of an alleged breach by such counterparty under any such In-License, the Company shall provide the Investors a copy thereof.

Section 5.6 Out-Licenses.

(a) Subject to compliance with this Section 5.6, the Company may enter into Out-Licenses that are Permitted Licenses without the Investors' prior written consent. The Company may not enter into any other Out-Licenses without the Investors' prior written consent.

(b) The Company shall promptly (and in any event within [***] Business Days following execution thereof) provide the Investors with (i) executed copies of each Out-License, and (ii) executed copies of each amendment, supplement, modification or written waiver of any material provision of an Out-License.

(c) The Company shall include in all Out-Licenses provisions permitting the Company to audit such Licensee and shall use Commercially Reasonable Efforts to include terms and conditions consistent in all material respects with the Investors' rights to audit the Company set forth in Section 5.3.

(d) The Company shall provide the Investors prompt (and in any event within three Business Days) written notice of a Licensee's material breach of its obligations under any Out-License of which any of the individuals named in the definition of "Knowledge of the Company" (or the successors of such Person at the Company) becomes aware.

(e) The Company shall provide the Investors with written notice promptly (and in any event within five Business Days) following the termination of any Out-License.

Section 5.7 Diligence. The Company shall use Commercially Reasonable Efforts to [***].

Section 5.8 Further Assurances. After the Effective Date, the Company and the Investors, severally and not jointly, agree to execute and deliver such other documents, certificates, agreements and other writings and to take such other actions as may be reasonably necessary in order to give effect to the transactions contemplated by the Transaction Documents.

Section 5.9 Burdensome Actions. Notwithstanding anything herein to the contrary, the Company shall not enter into any contracts or arrangements or otherwise knowingly take any action or knowingly fail to act in a manner that would, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

Section 5.10 Certain Tax Matters.

(a) The Company shall, and shall cause each of its Subsidiaries to, pay when due all material Taxes of any nature whatsoever now or hereafter imposed or assessed against the Company or such Subsidiary or their assets or upon the Company's (or such Subsidiary's) ownership, possession, use, operation or disposition thereof or upon the Company's (or such Subsidiary's) rents, receipts or earnings arising therefrom. The Company shall, and shall cause

each of its Subsidiaries to, accurately file on or before the due date therefor (taking into account proper extensions) all federal and state income Tax returns and other material Tax returns required to be filed. Notwithstanding the foregoing, the Company and its Subsidiaries may contest, in good faith and by appropriate proceedings diligently conducted, Taxes for which the Company and its Subsidiaries maintain adequate reserves in accordance with GAAP.

(b) The Company and the Investors agree that, for Tax purposes, (i) the Company and the Investors shall treat the transactions contemplated by this Agreement as indebtedness and shall treat each of the Investment Amounts as comprising separate debt instruments subject to the rules applicable to contingent payment debt instruments under Treasury Regulation Section 1.1275-4(b), and (ii) subject to the application of the Cap Amount or as otherwise required by applicable law, if multiple Investment Amounts have been paid by the Investors to the Company, then Royalty Payments shall for tax purposes be treated as paid pro rata in respect of each such Investment Amount. The parties hereto agree not to take any position that is inconsistent with the provisions of this Section 5.10 on any tax return or in any audit or other tax-related administrative or judicial proceeding unless (x) the other parties hereto have consented in writing (such consent not to be unreasonably withheld, conditioned or delayed) to such actions or (y) a party hereto receives advice in the form of a written memorandum or opinion from a nationally recognized accounting or law firm (at a more likely than not standard) that debt treatment is not appropriate, provided, that if any such party receives such advice, it shall promptly inform the other parties hereto thereof, and if another party hereto receives written advice from a nationally recognized accounting or law firm (at a more likely than not standard) that debt treatment is appropriate, the parties hereto shall in good faith discuss the differing conclusions and attempt to reconcile the differences, and if they are unable to do so, each such party may take its own position in respect thereof. If there is an inquiry by any Governmental Entity of the Investors or the Company related to the treatment described in this Section 5.10, the parties hereto shall cooperate with each other in responding to such inquiry in a reasonable manner which is consistent with this Section 5.10.

(c) Notwithstanding anything to the contrary in this Agreement (but subject to the requirement in Section 5.10(b) to treat the transactions contemplated hereby as indebtedness and subject to the Company's obligation to pay additional amounts pursuant to Section 5.10(d)), each of the Investors and the Company shall be entitled to withhold and deduct (or cause to be withheld and deducted) from any amount payable under this Agreement to any other party any Tax that any Investor or the Company, as applicable, determines that it is required to withhold and deduct under applicable law, and any such amount withheld and deducted shall be treated for all purposes of this Agreement as being paid to such other party; provided, that each of the Investors and the Company shall give such other party reasonable prior notice and the opportunity, in good faith, to contest and prevent such withholding and deduction. The parties hereto shall use commercially reasonable efforts to give or cause to be given to the other parties hereto such assistance and such information concerning the reasons for withholding or deduction (including, in reasonable detail, the method of calculation for the deduction or withholding thereof) as may be reasonably necessary to enable an Investor or the Company, as applicable, to claim exemption therefrom, or credit therefor, or relief (whether at source or by reclaim) therefrom, and, in each case, shall furnish the Investors or the Company, as applicable, with proper evidence of the taxes withheld and deducted and remitted to the relevant taxing authority. Each Investor, severally but not jointly, agrees (i) to notify the Company in writing if (A) such Investor becomes ineligible to use or deliver the Applicable Withholding Certificate delivered by such Investor to the Company under Section

3.1(f) or (B) the Applicable Withholding Certificate delivered by such Investor to the Company under Section 3.1(f) ceases to be accurate or complete and (ii) to provide (to the extent it is legally eligible to do so) any additional Tax forms that the Company may reasonably request.

(d) Notwithstanding anything to the contrary in this Agreement, if the Company (including, for the avoidance of doubt for purposes of this Section 5.10(d), any successor to the Company under this Agreement) becomes organized, formed or tax resident in a jurisdiction outside of the United States, then:

(i) if any applicable non-U.S. law requires the deduction or withholding of any additional amount from any payment hereunder to any Investor (which additional amount would not have resulted, solely as a result of the Company being organized, formed or tax resident in a jurisdiction outside of the United States), then the sum payable by the Company shall be increased as necessary so that, after such deduction or withholding has been made (including such deductions and withholdings applicable to additional sums payable under this Section 5.10(d)), such Investor receives the full contractual amount of the applicable payment as if no such additional deduction or withholding had been required or made;

(ii) if any Investor is required to pay any additional Taxes with respect to payments hereunder under any applicable non-U.S. law the amount of which it would not otherwise have to pay solely as a result of the Company being organized, formed or tax resident in a jurisdiction outside of the United States, then the Company shall indemnify such Investor, within 10 days after demand therefor, for the full amount of such additional Taxes (including Taxes imposed or asserted on or attributable to amounts payable under this Section 5.10(d) under such non-U.S. law) payable or paid by such Investor; and

(iii) the amount treated as paid by the Company and received by the applicable Investor for purposes of this Agreement shall include all additional amounts and indemnity payments paid to such Investor pursuant to this Section 5.10(d) (and for the avoidance of doubt shall be fully creditable towards the Cap Amount) and shall be reduced by all indemnified Taxes withheld from payments to such Investor or payable directly by such Investor (and for the avoidance of doubt shall be fully deducted from the Cap Amount).

(e) Notwithstanding anything to the contrary in this Agreement, each party's obligations under this Section 5.10 shall survive any assignment of rights by, or the replacement of, an Investor and the repayment, satisfaction or discharge of the Investment Amounts and any other obligations under this Agreement.

Section 5.11 Minimum Cash. The Company shall maintain an amount of cash, cash equivalents and liquid funds of at least (a) beginning [***] and on each day thereafter until [***], [***], and (b) beginning [***] and on each day thereafter until [***], the percentage of the Minimum Cash Reference Amount set forth below as of each such date:

Period	Percentage of Minimum Cash Reference Amount
[***]	[***]
[***]	[***]
[***]	[***]

Section 5.12 Additional Revenue Interests; Liens. The Company shall not create, incur, sell, issue, assume, enforce or suffer to exist any additional revenue interests (or similar economic equivalents) with respect to Net Sales of the Products, License Milestone Revenue or License Royalty Revenue in the Territory unless such additional revenue interests (or such economic equivalents) are subordinated to the Revenue Interests as to payment, security and enforcement. The Revenue Interest Collateral shall not be subject to any Lien, except for a Lien of the type described in clause (a) or clause (g) of the definition of Permitted Liens.

Section 5.13 Change of Control. The Company shall not, directly or indirectly, effectuate or consummate a Change of Control; provided, however, that the Company may, directly or indirectly, effectuate or consummate: (a) a Pre-Regulatory Milestone Change of Control if the Company pays the Pre-Regulatory Milestone Change of Control Price in accordance with Section 2.5; or (b) a Post-Regulatory Milestone Change of Control if (i) the Company pays the Post-Regulatory Milestone Change of Control Price in accordance with Section 2.5, (ii) the acquiring Person in such Post-Regulatory Milestone Change of Control (if other than the Company) is a Qualified Party and (iii) to the extent that the Company is party to such Post-Regulatory Milestone Change of Control and is not the surviving Person, such surviving Person expressly assumes all the obligations of the Company under the Transaction Documents to which the Company is party, in which case such surviving Person shall succeed to, and be substituted for, the Company under the Transaction Documents to which the Company is party and the Company shall automatically be released and discharged from its obligations under the Transaction Documents to which the Company is party.

Section 5.14 Dispositions of Product Rights. The Company shall not Dispose of any of its rights in a Product, in whole or in part, including any Product Rights, in one or more related transactions, to any Person unless (i) pursuant to the Hercules Loan Documents in connection with the exercise of remedies thereunder after an acceleration of the obligations thereunder, (ii) in connection with a Change of Control that complies with Section 5.13 or (iii) in connection with a transaction that complies with Section 5.18; provided, however, that this Section 5.14 shall not restrict the Company from licensing any Product Rights pursuant to a Permitted License or from transferring the Marketing Approvals for any jurisdiction to a Licensee in connection with a Permitted License covering such jurisdiction.

Section 5.15 Existence. Subject to Section 5.13 and Section 5.18, the Company shall (a) preserve and maintain its existence, (b) preserve and maintain its rights, franchises and privileges, unless failure to do any of the foregoing would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect, (c) qualify and remain qualified in good standing in each jurisdiction where the failure to do so would reasonably be expected to have, individually

or in the aggregate, a Material Adverse Effect, including appointing and employing such agents or attorneys in each jurisdiction where it shall be necessary to take action under the Transaction Documents, and (d) comply with its organizational documents.

Section 5.16 Use of Proceeds. The Company agrees that the proceeds of the Investment Amount shall be used solely for the continued development and commercialization of the Products and to pay fees and expenses incurred in connection with the Transaction Documents. The proceeds of the Investment Amount shall not be used in violation of Anti-Corruption Laws or applicable Sanctions.

Section 5.17 Compliance with Laws.

(a) The Company shall maintain, and shall cause each of its Subsidiaries to maintain, compliance in all material respects with all applicable laws, rules or regulations, and shall, or shall cause its Subsidiaries to, obtain and maintain all required authorizations, approvals, licenses, permits, certificates, registrations, listings, certificates or exemptions of or issued by any Governmental Entity reasonably necessary in connection with the conduct of the Company's business. The Company shall not become an "investment company" or a company controlled by an "investment company" under the Investment Company Act of 1940 or undertake as one of its important activities extending credit to purchase or carry margin stock (as defined in Regulations T, U and X of the Federal Reserve Board of Governors).

(b) Neither the Company nor any of its Subsidiaries shall, nor shall the Company or any of its Subsidiaries permit any controlled Affiliate to, directly or indirectly, knowingly enter into any documents, instruments, agreements or contracts with any Person listed on the OFAC Lists. Neither the Company nor any of its Subsidiaries shall, nor shall the Company or any of its Subsidiaries permit any controlled Affiliate to, directly or indirectly, (i) conduct any business or engage in any transaction or dealing with any Blocked Person, including the making or receiving of any contribution of funds, goods or services to or for the benefit of any Blocked Person, (ii) deal in, or otherwise engage in any transaction relating to, any property or interests in property blocked pursuant to Executive Order No. 13224 or any similar executive order or other Anti-Terrorism Law or (iii) engage in or conspire to engage in any transaction that evades or avoids, or has the purpose of evading or avoiding, or attempts to violate, any of the prohibitions set forth in Executive Order No. 13224 or other Anti-Terrorism Law.

(c) The Company shall maintain in effect policies and procedures designed to reasonably ensure compliance by the Company and its Subsidiaries and their respective directors, officers, employees and agents with Anti-Corruption Laws and applicable Sanctions, and the Company and its Subsidiaries and their respective officers and employees and, to the Knowledge of the Company, its directors and agents are in compliance with Anti-Corruption Laws and applicable Sanctions in all material respects.

(d) Neither the Company nor its Subsidiaries nor any of their respective directors, officers or employees, or, to the Knowledge of the Company, any agent for the Company or any of its Subsidiaries that shall act in any capacity in connection with or benefit from the transactions contemplated by the Transaction Documents, is a Sanctioned Person. No Investment Amount, use

of proceeds or other transaction contemplated by the Transaction Documents shall violate Anti-Corruption Laws or applicable Sanctions.

Section 5.18 Mergers. The Company shall not consummate any merger, reorganization, or sale of all or substantially all of its properties or assets, unless (a) in connection with a Change of Control that complies with Section 5.13 or (b) upon closing such transaction, if the surviving Person is not the Company, (i) such surviving Person is a Qualified Party and (ii) such surviving Person expressly assumes all the obligations of the Company under the Transaction Documents to which the Company is party, in which case such surviving Person shall succeed to, and be substituted for, the Company under the Transaction Documents to which the Company is party and the Company shall automatically be released and discharged from its obligations under the Transaction Documents to which the Company is party.

ARTICLE 6

INDEMNIFICATION

Section 6.1 General Indemnity. From and after the Effective Date:

(a) the Company hereby agrees to indemnify, defend and hold harmless the Investors and their Affiliates and their respective directors, managers, trustees, officers, agents and employees (the "Investor Indemnified Parties") from, against and in respect of all Losses suffered or incurred by the Investor Indemnified Parties, in each case whether or not brought by a Third Party, to the extent arising out of or resulting from (i) any breach of any of the representations or warranties of the Company in any Transaction Document, (ii) any breach of any of the covenants or agreements of the Company in any Transaction Document, (iii) any product liability claims relating to a Product, (iv) any claims of infringement or misappropriation of any intellectual property rights by any Third Parties against any Investor, the Company or any of its Affiliates or Takeda and (v) any fees, expenses, costs, liabilities or other amounts incurred or owed by the Company or any of its Affiliates to any brokers, financial advisors or comparable other Persons retained or employed by any of them in connection with the transactions contemplated by the Transaction Documents; and

(b) each Investor hereby agrees, severally and not jointly, to indemnify, defend and hold harmless the Company and its Affiliates and its and their directors, officers, agents and employees (the "Company Indemnified Parties") from, against and in respect of all Losses suffered or incurred by the Company Indemnified Parties to the extent arising out of or resulting from (i) any breach of any of the representations or warranties of such Investor in any Transaction Document, and (ii) any breach of any of the covenants or agreements of such Investor in any Transaction Document.

Section 6.2 Notice of Claims. If either an Investor Indemnified Party, on the one hand, or a Company Indemnified Party, on the other hand (such Investor Indemnified Party on the one hand and such Company Indemnified Party on the other hand being hereinafter referred to as an "Indemnified Party"), has suffered or incurred any Losses for which indemnification may be sought under this ARTICLE 6, the Indemnified Party shall so notify the other party from whom indemnification is sought under this ARTICLE 6 (the "Indemnifying Party") promptly in writing

describing such Loss, the amount or estimated amount thereof, if known or reasonably capable of estimation, and the method of computation of such Loss, all with reasonable particularity and containing a reference to the provisions of this Agreement in respect of which such Loss shall have occurred. If any claim, action, suit or proceeding is asserted or instituted by or against a Third Party with respect to which an Indemnified Party intends to claim any Loss under this ARTICLE 6, such Indemnified Party shall promptly notify the Indemnifying Party of such claim, action, suit or proceeding and tender to the Indemnifying Party the defense of such claim, action, suit or proceeding. A failure by an Indemnified Party to give notice and to tender the defense of such claim, action, suit or proceeding in a timely manner pursuant to this Section 6.2 shall not limit the obligation of the Indemnifying Party under this ARTICLE 6, except to the extent such Indemnifying Party is actually prejudiced thereby.

Section 6.3 Survival; Limitations on Liability.

(a) The representations and warranties contained in this Agreement shall survive the Effective Date solely for purposes of Section 6.1 and terminate on the Applicable Survival Date. No party hereto shall have any liability or obligation of any nature with respect to any representation or warranty after the termination thereof, unless the other party or parties hereto shall have delivered a notice to such party pursuant to Section 6.2, claiming such a liability or obligation under Section 6.1, prior to the Applicable Survival Date. "Applicable Survival Date" means (a) in the case of the representations and warranties contained in Section 4.1(a), Section 4.1(b), Section 4.1(c), Section 4.1(m), Section 4.1(o), Section 4.1(p), Section 4.1(q), Section 4.2(a), Section 4.2(b), Section 4.2(c) and Section 4.2(h), [***], and (b) in all other cases, [***].

(b) Notwithstanding anything in this Agreement to the contrary, the Company shall not have any liability under Section 6.1(a) in excess of an amount equal to [***], provided, that the foregoing limitation shall not apply to breach of any of the representations, covenants or agreements in Section 5.10.

(c) Notwithstanding anything in this Agreement to the contrary, no Investor shall have any liability under Section 6.1(b) in excess of [***].

(d) Except in cases of fraud, gross negligence, or willful misconduct, no party hereto shall be liable for any consequential, punitive, lost profits, special or incidental damages under this ARTICLE 6 (and no claim for indemnification hereunder shall be asserted) as a result of any breach or violation of any covenant or agreement of such party (including under this ARTICLE 6) in or pursuant to this Agreement.

ARTICLE 7

CONFIDENTIALITY

Section 7.1 Confidentiality. Except as provided in this ARTICLE 7 or otherwise agreed in writing by the parties, the parties hereto agree that, during the term of this Agreement and for one year thereafter, each party (the "Receiving Party") shall keep confidential and shall not publish or otherwise disclose and shall not use for any purpose other than as provided for in this Agreement (which includes the exercise of any rights or the performance of any obligations hereunder) any

information furnished to it by or on behalf of any other party (the "Disclosing Party") pursuant to this Agreement (such information, "Confidential Information" of the Disclosing Party), except for that portion of such information that:

(a) was already known to the Receiving Party, other than under an obligation of confidentiality, at the time of disclosure by the Disclosing Party;

(b) was generally available to the public or otherwise part of the public domain at the time it was disclosed to or learned by the Receiving Party;

(c) became generally available to the public or otherwise part of the public domain after its disclosure and other than through any act or omission of the Receiving Party in breach of this Agreement or any other agreement;

(d) is independently developed by the Receiving Party or any of its Affiliates, as evidenced by written records, without the use of or reference of the Confidential Information; or

(e) is subsequently disclosed to the Receiving Party on a non-confidential basis by a Third Party without obligations of confidentiality with respect thereto.

Section 7.2 Authorized Disclosure.

(a) Either party may disclose Confidential Information to the extent such disclosure is reasonably necessary in the following situations:

(i) prosecuting or defending litigation;

(ii) complying with applicable laws and regulations, including regulations promulgated by securities exchanges;

(iii) complying with a valid order of a court of competent jurisdiction or other Governmental Entity;

(iv) for regulatory, Tax or customs purposes, including in connection with a routine examination by a regulatory or supervisory authority having jurisdiction over the Receiving Party;

(v) for audit purposes, provided, that each recipient of Confidential Information must be bound by customary and reasonable obligations of confidentiality and non-use prior to any such disclosure;

(vi) disclosure to its Affiliates and Representatives on a need-to-know basis, provided, that each such recipient of Confidential Information must be bound by contractual or professional obligations of confidentiality and non-use at least as stringent as those imposed upon the parties hereunder prior to any such disclosure;

(vii) upon the prior written consent of the Disclosing Party;

(viii) disclosure to its Representatives or potential partners, collaborators or acquirers, and their respective accountants, financial advisors and other professional representatives, provided, that such disclosure shall be made only to the extent customarily required to consummate an investment, financing transaction, partnership, collaboration or acquisition and that each recipient of Confidential Information must be bound by customary obligations of confidentiality and non-use prior to any such disclosure; and

(ix) as is necessary in connection with an assignment permitted by Section 9.4.

(b) Notwithstanding the foregoing, in the event the Receiving Party is required to make a disclosure of the Disclosing Party's Confidential Information pursuant to Section 7.2(a)(i), (ii), (iii) or (iv), it will, except where impracticable, give reasonable advance notice to the Disclosing Party of such disclosure and use reasonable efforts to secure confidential treatment of such information; provided, that the Investors will not be required to give such advance notice if such disclosure is made pursuant to Section 7.2(a)(iv) in connection with a routine examination by a regulatory or supervisory authority having jurisdiction over such Investor.

(c) Notwithstanding anything set forth in this Agreement, materials and documentation relating to the Company's Intellectual Property Product Rights may be only disclosed to or accessed by the Investors and their respective attorneys and auditors, without further disclosure to any other Representative of the Investors, without the consent of the Company, unless in connection with a routine examination by a regulatory or supervisory authority having jurisdiction over such Investor.

ARTICLE 8

TERMINATION; SURVIVAL

Section 8.1 Mutual Termination. This Agreement may be terminated by mutual written agreement of the Investors and the Company.

Section 8.2 Automatic Termination. Unless earlier terminated as provided in Section 8.1, following the Effective Date, this Agreement shall continue in full force and effect until the earliest of: (i) the date on which the sum of all Royalty Payments (and any other payments made by the Company to the Investors hereunder) received by the Investors under this Agreement from and after the Funding Date meets or exceeds (x) the aggregate of the Funding Date Payment, any Regulatory Milestone Payment (whether or not previously paid by the Investors, unless no longer payable in accordance with the terms of this Agreement) and any Sales Milestone Payment (whether or not previously paid by the Investors, unless no longer payable in accordance with the terms of this Agreement), multiplied by (y) two; (ii) the date on which the Company pays the Pre-Regulatory Milestone Change of Control Price in accordance with Section 2.5; (iii) the date on which the Company makes the payments contemplated by Section 2.3(c); and (iv) the date on which the Company pays the Event of Default Fee in accordance with Section 2.4(a). Upon the occurrence of any of clause (i) above, clause (ii) above, clause (iii) above or clause (iv) above, this Agreement (including, for the avoidance of doubt, any obligations of any Investor to provide further Investment Amounts to the Company) shall automatically terminate, except with respect to any rights that shall have accrued prior to such termination.

Section 8.3 Survival. Notwithstanding anything to the contrary in this ARTICLE 8, the following provisions shall survive termination of this Agreement: Section 5.2 (Disclosures), Section 5.3 (Inspections and Audits of the Company), ARTICLE 6 (Indemnification), ARTICLE 7 (Confidentiality), this Section 8.3 (Survival), and ARTICLE 9 (Miscellaneous). Termination of the Agreement shall not relieve any party of liability in respect of breaches under this Agreement by any party on or prior to termination.

ARTICLE 9

MISCELLANEOUS

Section 9.1 Headings. The table of contents and the descriptive headings of the several Articles and Sections of this Agreement and the Exhibits and Schedules are for convenience only, do not constitute a part of this Agreement and shall not control or affect, in any way, the meaning or interpretation of this Agreement.

Section 9.2 Notices. All notices and other communications under this Agreement shall be in writing and shall be by email with PDF attachment, facsimile, courier service or personal delivery to the following addresses, or to such other addresses as shall be designated from time to time by a party hereto in accordance with this Section 9.2:

If to the Company, to it at:

Phathom Pharmaceuticals, Inc.
100 Campus Drive, Suite 102
Florham Park, NJ 07932
Attention: General Counsel
E-mail: [***]

with a copy to:

Morgan, Lewis & Bockius LLP
1701 Market Street
Philadelphia, PA 19103-2921
Attention: Conor F. Larkin
E-mail: [***]

If to the Investors, to them at:

(x) in the case of Sagard Healthcare Royalty Partners, LP or Sagard Healthcare Partners Co-Invest Designated Activity Company:

Sagard
161 Bay Street, Suite 5000
Toronto, ON M5J 2S1
Canada
Attention: General Counsel
E-mail: [***]

with a copy to:

Torys LLP
1114 Avenue of the Americas
New York, NY 10036
Attention: Darien G Leung
E-mail: [***]

(y) in the case of NQ Project Pharaoh, L.P.:

NQ Project Pharaoh, L.P.
c/o NovaQuest Capital Management, L.L.C.
4208 Six Forks Road, Suite 920
Raleigh, NC 27609
Attention: Jonathan Tunnicliffe
E-mail: [***]

with a copy to:

Wyrick Robbins Yates & Ponton LLP
4101 Lake Boone Trail, Suite 300
Raleigh, NC 27607
Attention: Daniel S. Porper
E-mail: [***]

(z) in the case of Hercules Capital, Inc. or Hercules Private Global Venture Growth Fund I L.P.:

Hercules Capital, Inc.
400 Hamilton Avenue, Suite 310
Palo Alto, CA 94301
Attention: Chief Legal Officer and Michael Dutra
E-mail: [***]; [***]

with a copy to:

DLA Piper LLP (US)
401 B Street, Suite 1700
San Diego, CA 92101-4297
Attention: Matt Schwartz, Esq.
E-mail: [***]

and in all cases with a copy to:

Pillsbury Winthrop Shaw Pittman LLP
31 West 52nd Street
New York, NY 10019-6131

Attention: Jeffrey J. Delaney and David S. Baxter
E-mail: [***] and [***]

All notices and communications under this Agreement shall be deemed to have been duly given (i) when delivered by hand, if personally delivered, (ii) when sent, if sent by facsimile, with an acknowledgement of sending being produced by the sending facsimile machine, (iii) when sent, if by email with PDF attachment, with an acknowledgment of receipt being produced by the recipient's email account, or (iv) one Business Day following sending within the United States by overnight delivery via commercial one-day overnight courier service.

Section 9.3 Expenses. Except as otherwise provided in the Transaction Documents, all fees, costs and expenses (including any legal, accounting and banking fees) incurred in connection with the preparation, negotiation, execution and delivery of this Agreement and to consummate the transactions contemplated hereby shall be paid by the party hereto incurring such fees, costs and expenses; provided, however, that the Company shall pay (a) no later than the Business Day following the Funding Date, all documented fees and disbursements of Pillsbury Winthrop Shaw Pittman LLP, counsel for the Initial Investors, in an aggregate amount not to exceed [***], it being understood that such amount may be increased with the consent of the Company, and (b) all reasonable documented out-of-pocket expenses of the Investors in respect of the Transaction Documents incurred following the Funding Date (including the reasonable documented fees and disbursements of one external counsel per Investor) resulting from any amendment or waiver requested with respect to the Transaction Documents.

Section 9.4 Assignment. The Company may not assign in whole or in part this Agreement or any of its rights or obligations hereunder except as permitted under Section 5.13 or Section 5.18. Following the Effective Date, no Investor may assign its obligations to pay its portion of the Investment Amount pursuant to this Agreement to any Person without the Company's prior written consent, which shall not be unreasonably withheld, conditioned or delayed, unless such assignment is to an Affiliate of an Investor and such Affiliate executes a joinder to this Agreement, in form and substance reasonably acceptable to the Company, and agrees to be an "Investor" for all purposes hereunder. Except as set forth in the prior sentence, an Investor may assign all or any of its rights and/or obligations under the Transaction Documents to any Person without the prior written consent of the Company; provided, however, that (x) if such Person is not an Investor, such assignment will be subject to such Person's execution of a joinder to this Agreement, in form and substance reasonably acceptable to the Company, and agreement to be an "Investor" for all purposes hereunder, and (y) such Person shall not be a Prohibited Assignee. This Agreement shall be binding upon, inure to the benefit of, and be enforceable by, the parties hereto and their respective permitted successors and assigns. Any purported assignment in violation of this Section 9.4 shall be null and void.

The Company shall maintain a register for the recordation of the names and addresses of the Investors, the amount of each portion of the Investment Amount, and the amount of the Royalty Payments paid to each Investor, in the aggregate with respect to all Investment Amounts and individually with respect to each clause of the definition of Investment Amount, in a manner calculated consistent with Section 5.10(b) (the "Register"). The Company shall promptly record any assignment by an Investor permitted by this Agreement in the Register. The entries in the Register shall be conclusive absent manifest error, and the Company and the Investors shall treat

each Person whose name is recorded in the Register pursuant to the terms hereof as an Investor hereunder for all purposes of this Agreement. The Register shall be available for inspection by any Investor, at any reasonable time and from time to time upon prior written notice.

Section 9.5 Amendment and Waiver.

(a) This Agreement may be amended, modified or supplemented only in a writing signed by all of the parties hereto. Any provision of this Agreement may be waived only in a writing signed by the party hereto granting such waiver.

(b) No failure or delay on the part of any party hereto in exercising any right, power or remedy hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such right, power or remedy preclude any other or further exercise thereof or the exercise of any other right, power or remedy. No course of dealing between the parties hereto shall be effective to amend, modify, supplement or waive any provision of this Agreement.

Section 9.6 Entire Agreement. This Agreement, the Exhibits annexed hereto, the Schedules attached hereto and the Subordination Agreement constitute the entire understanding between the parties hereto with respect to the subject matter hereof and supersede all other understandings and negotiations with respect thereto, including any confidentiality agreement to which the Company (or any Affiliate of the Company), on the one hand, and any Initial Investor (other than Hercules Capital Inc. or any Affiliate thereof), on the other hand, is party or bound, and any such confidentiality agreement is hereby terminated without further force and effect, including any provisions that by the terms thereof would have otherwise survived the termination of such confidentiality agreement.

Section 9.7 No Third-Party Beneficiaries. This Agreement is for the sole benefit of the Company and the Investors and their permitted successors and assigns and nothing herein expressed or implied shall give or be construed to give to any Person, other than the parties hereto and such successors and assigns, any legal or equitable rights hereunder, except that the Indemnified Parties shall be third party beneficiaries of the benefits provided for in Section 6.1.

Section 9.8 Governing Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York without giving effect to any choice or conflict of law provision or rule that would cause the application of the laws of any other jurisdiction.

Section 9.9 Jurisdiction; Venue.

(a) EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY AND UNCONDITIONALLY SUBMITS, FOR ITSELF AND ITS RESPECTIVE PROPERTY AND ASSETS, TO THE EXCLUSIVE JURISDICTION OF ANY NEW YORK STATE COURT OR FEDERAL COURT OF THE UNITED STATES OF AMERICA SITTING IN NEW YORK COUNTY, NEW YORK, AND ANY APPELLATE COURT THEREOF, IN ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT, OR FOR RECOGNITION OR ENFORCEMENT OF ANY JUDGMENT IN RESPECT THEREOF, AND THE INVESTORS AND THE COMPANY HEREBY IRREVOCABLY AND UNCONDITIONALLY AGREE THAT ALL CLAIMS IN RESPECT OF ANY SUCH ACTION OR PROCEEDING MAY BE HEARD AND DETERMINED IN ANY SUCH NEW YORK

STATE COURT OR, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, IN SUCH FEDERAL COURT. THE INVESTORS AND THE COMPANY HEREBY AGREE THAT A FINAL JUDGMENT IN ANY SUCH ACTION OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY APPLICABLE LAW. EACH OF THE INVESTORS AND THE COMPANY HEREBY SUBMITS TO THE EXCLUSIVE PERSONAL JURISDICTION AND VENUE OF SUCH NEW YORK STATE AND FEDERAL COURTS. THE INVESTORS AND THE COMPANY AGREE, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, THAT PROCESS MAY BE SERVED ON THE INVESTORS OR THE COMPANY IN THE SAME MANNER THAT NOTICES MAY BE GIVEN PURSUANT TO SECTION 9.2 HEREOF.

(b) EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVES, TO THE FULLEST EXTENT IT MAY LEGALLY AND EFFECTIVELY DO SO, ANY OBJECTION THAT IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF VENUE OF ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT IN ANY NEW YORK STATE OR FEDERAL COURT. EACH OF THE INVESTORS AND THE COMPANY HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF SUCH ACTION OR PROCEEDING IN ANY SUCH COURT.

(c) EACH PARTY HEREBY JOINTLY AND SEVERALLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY ACTION OR PROCEEDING RELATING TO THIS AGREEMENT OR ANY OTHER DOCUMENT DELIVERED HEREUNDER OR IN CONNECTION HEREWITH, OR ANY TRANSACTION ARISING FROM OR CONNECTED TO ANY OF THE FOREGOING. EACH OF THE PARTIES REPRESENTS THAT THIS WAIVER IS KNOWINGLY, WILLINGLY, AND VOLUNTARILY GIVEN.

Section 9.10 Severability. If any term or provision of this Agreement shall for any reason be held to be invalid, illegal or unenforceable in any situation in any jurisdiction, then, to the extent that the economic and legal substance of the transactions contemplated hereby is not affected in a manner that is materially adverse to any party hereto, all other terms and provisions of this Agreement shall nevertheless remain in full force and effect and the enforceability and validity of the offending term or provision shall not be affected in any other situation or jurisdiction.

Section 9.11 Specific Performance. Each of the parties acknowledges and agrees that the other parties would be damaged irreparably in the event any of the provisions of this Agreement are not performed in accordance with their specific terms or otherwise are breached or violated. Accordingly, each of the parties agrees that, without posting bond or other undertaking, the other parties will be entitled to seek an injunction or injunctions to prevent breaches or violations of the provisions of this Agreement and to seek to enforce specifically this Agreement and the terms and provisions hereof in any action, suit or other proceeding instituted in any court of the United States or any state thereof having jurisdiction over the parties and the matter in addition to any other remedy to which it may be entitled, at law or in equity.

Section 9.12 Counterparts. This Agreement may be executed in any number of counterparts and by the parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. The words "execution", "signed" and "signature" and words of like import in this Agreement or in any other certificate, agreement or document related to this Agreement (to the extent permissible under governing documents) shall include images of manually executed signatures transmitted by facsimile or other electronic format (including "pdf", "tif" or "jpg") and other electronic signatures (including DocuSign and AdobeSign). The use of electronic signatures and electronic records (including any contract or other record created, generated, sent, communicated, received or stored by electronic means) shall be of the same legal effect, validity and enforceability as a manually executed signature or use of a paper-based record-keeping system to the fullest extent permitted by applicable law, including the Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act and any other applicable law, including any state law based on the Uniform Electronic Transactions Act or the Uniform Commercial Code. The foregoing shall apply to each other Transaction Document mutatis mutandis.

Section 9.13 Subordination Agreement. Notwithstanding anything to the contrary herein, the security interest granted to the Investors and their successors and assigns pursuant to this Agreement and the exercise of any right or remedy by the Investors and their respective successors and assigns hereunder are subject to the provisions of the Subordination Agreement.

Section 9.14 Relationship of the Parties. The relationship between the Investors and the Company is solely that of a borrower and lender, and neither the Investors nor the Company has any fiduciary or other special relationship with the other party or any of its affiliates. This Agreement is not a partnership or similar agreement, and nothing contained herein shall be deemed to constitute the Investors and the Company as a partnership, an association, a joint venture or any other kind of entity or legal form for any purposes, including any Tax purposes. The Investors and the Company agree that they shall not take any inconsistent position with respect to such treatment in a filing with any Governmental Entity.

Section 9.15 Remedies. The rights and remedies of the parties under this Agreement are cumulative and not alternative. Neither the failure nor any delay by any party in exercising any right, power or privilege under this Agreement will operate as a waiver of such right, power or privilege, and no single or partial exercise of such right, power or privilege will preclude any other or further exercise of such right, power or privilege or the exercise of any other right, power or privilege. Unless specifically and expressly stated in this Agreement as exclusive, each remedy of the parties specified in this Agreement is not exclusive, and, subject to the terms of this Agreement, the parties shall be entitled to pursue any available legal or equitable remedy for breach of this Agreement or any provision hereof.

{Signature Page Follows}

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed and delivered by their respective representatives thereunto duly authorized as of the date first above written.

COMPANY:

PHATHOM PHARMACEUTICALS, INC.

By: /s/ Terrie Curran
Name: Terrie Curran
Title: President and
Chief Executive Officer

INVESTOR:

NQ PROJECT PHARAOH, L.P.
By: NQ POF V GP, Ltd., its general partner

By: /s/ John L. Bradley, Jr.
Name: John L. Bradley, Jr.
Title: Director

INVESTOR:

SAGARD HEALTHCARE ROYALTY PARTNERS, LP
By: Sagard Healthcare Royalty Partners GP LLC, its general partner

By: /s/ Jason Sneah
Name: Jason Sneah
Title: Manager

By: /s/ Adam Vigna
Name: Adam Vigna
Title: Chief Investment Officer

SAGARD HEALTHCARE PARTNERS CO-INVEST DESIGNATED ACTIVITY COMPANY

By: /s/ Kate Macken
Name: Kate Macken
Title: Director

By: /s/ Lisa Martensson
Name: Lisa Martensson
Title: Director

INVESTOR:

HERCULES CAPITAL, INC.

By: /s/ Seth Meyer
Name: Seth Meyer
Title: Chief Financial Officer

HERCULES PRIVATE GLOBAL VENTURE GROWTH FUND I L.P.
By: Hercules Adviser LLC, its Investment Adviser

By: /s/ Seth Meyer
Name: Seth Meyer
Title: Authorized Signatory

Exhibit A

Subordination Agreement

[***]

Exhibit B

Hercules Consent

[***]

Schedule 1.1

Initial Investors

[***]

Schedule 4.1(k)(i)(A)

Patent Rights

[***]

Schedule 4.1(l)

Indebtedness

[***]

CONSENT AND FIRST AMENDMENT TO LOAN AND SECURITY AGREEMENT

THIS CONSENT AND FIRST AMENDMENT TO LOAN AND SECURITY AGREEMENT (this "Amendment"), dated as of May 3, 2022, is entered into by and among PHATHOM PHARMACEUTICALS, INC., a Delaware corporation, each of its Subsidiaries from time to time party to the Loan Agreement (as defined below) as borrower (individually or collectively, as the context may require, "Borrower"), the several banks and other financial institutions or entities from time to time parties to the Loan Agreement (collectively, referred to as the "Existing Lenders"), SAGARD HEALTHCARE ROYALTY PARTNERS, LP, a Cayman Islands exempted limited partnership (the "Incoming Lender", and together with the Existing Lenders, the "Lenders"), and HERCULES CAPITAL, INC., a Maryland corporation, in its capacity as administrative agent and collateral agent for itself and the Lenders (together with its successors and assigns, in such capacity, the "Agent").

A. Borrower, Existing Lenders and Agent are parties to that certain Loan and Security Agreement, dated as of September 17, 2021 (as amended, restated, supplemented or otherwise modified from time to time prior to the date of this Amendment, the "Loan Agreement").

B. Borrower has informed Agent and the Lenders that it shall enter into a Revenue Interest Financing Agreement dated as of May 3, 2022 with NQ Project Pharaoh, L.P., a Delaware limited partnership, Sagard Healthcare Royalty Partners, LP, a Cayman Islands exempted limited partnership, Sagard Healthcare Partners Co-Invest Designated Activity Company, a company incorporated in Ireland, Hercules Capital, Inc., a Maryland corporation, Hercules Private Global Venture Growth Fund I L.P., a Delaware limited partnership, and any other entity or entities that become party thereto (collectively, referred to as "Investor"), pursuant to which Investor will extend certain financing to Borrower secured by the Revenue Interest Collateral from time to time, and Borrower will owe certain royalty and other payments to Investor in connection therewith on a secured basis, each in accordance with and pursuant to the terms of such Revenue Interest Financing Agreement in the form attached as Exhibit A to this Amendment (the "RIF Agreement", and together with the transactions contemplated therein as of the date of this Amendment, the "RIFA Transaction"; provided, however, the RIF Agreement and the RIFA Transaction shall not include any agreement, transaction or other arrangement between Borrower and Investor that is not expressly set out, or contemplated by, Exhibit A to this Amendment, including any amendment, restatement, supplementation, waiver or other modification thereto except to the extent permitted by the Loan Agreement).

C. Borrower has requested that Agent and the Lenders consent to the RIFA Transaction and make certain other revisions to the Loan Agreement. Although Agent and the Lenders are under no obligation to do so, they have agreed to such requests, subject to the terms and conditions hereof.

SECTION 1 Definitions; Interpretation.

(a) **Terms Defined in Loan Agreement**. All capitalized terms used in this Amendment (including in the recitals hereof) and not otherwise defined herein shall have the meanings assigned to them in the Loan Agreement (as amended by this Amendment).

(b) **Rules of Construction**. The rules of construction in Section 1.2 of the Loan Agreement shall be applicable to this Amendment and are incorporated herein by this reference.

SECTION 2 Consent.

(a) Subject to the terms of this Amendment and the RIF Subordination Agreement, and notwithstanding anything to the contrary in the Loan Agreement, Agent and the Lenders hereby consent to

the RIFA Transaction and the Borrower performing its obligations thereunder and the Lenders authorize the Agent to enter into the RIF Subordination Agreement.

(b) The consent set forth in this Section 2 is effective for the purposes set forth herein and shall be limited precisely as written and shall not be deemed to (a) be a consent to any amendment, waiver, forbearance or modification of any other term or condition of any Loan Document or any transaction other than the RIFA Transaction and as otherwise expressly contemplated by this Amendment; (b) prejudice any right or remedy which Agent or the Lenders may now have or may have in the future under or in connection with any Loan Document; or (c) limit or impair Agent's or any Lender's right to demand strict performance of all terms and covenants of the Loan Agreement, as amended hereby, as of any date.

SECTION 3 Amendments to the Loan Agreement.

(a) Upon satisfaction of the conditions set forth in Section 4 hereof, the Loan Agreement is hereby amended as follows:

(i) New Definitions. The following definitions are added to Section 1.1 of the Loan Agreement in their proper alphabetical order:

"First Amendment" means that certain Consent and First Amendment to Loan and Security Agreement, dated as of May 3, 2022, by and among the Borrower, Agent and the Lenders.

"Investor" means (i) NQ Project Pharaoh, L.P., a Delaware limited partnership, (ii) Sagard Healthcare Royalty Partners, LP, a Cayman Islands exempted limited partnership, (iii) Sagard Healthcare Partners Co-Invest Designated Activity Company, a company incorporated in Ireland, (iv) Hercules Capital, Inc., a Maryland corporation, (v) Hercules Private Global Venture Growth Fund I L.P., a Delaware limited partnership, and (vi) any other entity or entities that become party to the RIF Agreement in accordance with Section 2.1(b)(ii), 2.1(c) or 9.4 of the RIF Agreement.

"Permitted RIF Indebtedness" means Indebtedness of Borrower in favor of Investor that (a) is incurred in accordance with the RIF Agreement, (b) is in an aggregate investment amount not to exceed $300,000,000, (c) consists (in part) of a Royalty Payment for which the Royalty Rate (as defined in the RIF Agreement) is no greater than 10%, (d) includes the other payment obligations of Borrower set forth therein, and (e) is subject to the RIF Subordination Agreement.

"Revenue Interest Collateral" has the meaning given to such term in Section 2.7(a) of the RIF Agreement.

"RIF Agreement" means that certain Revenue Interest Financing Agreement, attached as Exhibit A to the First Amendment, by and among Borrower and Investor dated as of May 3, 2022; provided that the terms of the RIF Agreement may be amended or waived but only to the extent (a) Borrower provides the Agent and Lenders with not less than ten (10) Business Days' written notice (or such shorter period as consented to by the Agent and the Lenders) and (b) Borrower has received the prior written consent of Agent and the Required Lenders if the amendment or waiver (i) is adverse to the Agent and the Lenders in any material respect (including by modifying the defined terms "Royalty Payments", "Royalty Rate" and/or the security interests set forth in Section 2.7 therein) or
(ii) impairs the rights of the Agent and the Lenders under this Agreement.

"RIF Collateral Account" means the deposit account(s) used exclusively to maintain the Revenue Interest Collateral in accordance with Section 2.7(b) of the RIF Agreement.

"RIF Subordination Agreement" means that certain Subordination Agreement by and among Borrower, Investor and Agent dated as of May 3, 2022.

"Royalty Payments" has the meaning given to such term in Section 1.1 of the RIF Agreement.

(ii) Amended and Restated Definitions. The following definitions appearing in Section 1.1 of the Loan Agreement are hereby amended in their entirety and replaced with the following:

"Excluded Account" means (a) prior to the termination of the RIF Agreement in accordance with Article 8 of the RIF Agreement, the RIF Collateral Account (and funds deposited therein or credited thereto), and (b) any of the following accounts which are designated as such in writing to Agent as of the Closing Date or, with respect to any account opened after the Closing Date, in the next Compliance Certificate delivered after such account is opened: (i) accounts used exclusively to maintain cash collateral subject to a Permitted Lien, (ii) any payroll or benefits account, provided that the aggregate balance of all such accounts shall not exceed the amount of all payroll or related benefit payments required to be made in the two next payroll periods, (iii) any zero balance account, and
(iv) any other deposit accounts, so long as the aggregate amount in all such deposit accounts do not exceed $1,000,000 on any day.

"Loan Documents" means this Agreement, the promissory notes (if any), the ACH Authorization, the Account Control Agreements, any Joinder Agreements, all UCC financing statements naming Borrower as debtor and Agent as secured party, the Warrant, the Intellectual Property Security Agreement, the Guaranty (if any), the RIF Subordination Agreement and any other documents executed in connection with the Secured Obligations or the transactions contemplated hereby, as the same may from time to time be amended, modified, supplemented or restated.

"Permitted Indebtedness" means:

(a) Indebtedness of Borrower in favor of any Lender or Agent arising under this Agreement or any other Loan Document;

(b) Indebtedness existing on the Closing Date which is disclosed in Schedule 1A;

(c) Indebtedness of up to $500,000 outstanding at any time secured by a Lien described in clause (g) of the defined term "Permitted Liens", provided that (x) such Indebtedness does not exceed the cost of the Equipment or software or other intellectual property financed with such Indebtedness, and (y) such amount may be increased by $50,000 for each vehicle assigned by the Borrower to field-based employees;

(d) (i) Indebtedness to trade creditors incurred in the ordinary course of business and
(ii) Indebtedness incurred in the ordinary course of business with corporate credit cards in an aggregate amount not to exceed (x) at all times prior to the Approval

Milestone II Date, $2,000,000, and (y) at all times on an after the Approval Milestone II Date, $5,000,000, in each case outstanding at any time;

(e) Indebtedness that also constitutes a Permitted Investment or is secured by a Permitted Lien;

(f) Subordinated Indebtedness;

(g) reimbursement obligations in connection with letters of credit that are secured by Cash and issued on behalf of Borrower or a Subsidiary in an amount not to exceed (x) at all times prior to the Approval Milestone II Date, $1,500,000, and (y) at all times on an after the Approval Milestone II Date, $2,500,000, in each case at any time outstanding;

(h) intercompany Indebtedness as long as each of the Subsidiary obligor and the Subsidiary obligee under such Indebtedness is a Subsidiary that has executed a Joinder Agreement, or other intercompany Indebtedness resulting from a Permitted Investment in accordance with clause (j) of the defined term "Permitted Investments";

(i) Permitted Convertible Debt in an aggregate principal amount not to exceed $400,000,000 at any one time outstanding;

(j) Permitted RIF Indebtedness;

(k) other unsecured Indebtedness in an amount not to exceed $1,000,000 at any time outstanding; and

(l) extensions, refinancings and renewals of any items of Permitted Indebtedness, provided that the principal amount is not increased or the terms modified to impose materially more burdensome terms upon Borrower or the applicable Subsidiary, as the case may be, and subject to any limitations on aggregate amount of such Indebtedness.

"Permitted Liens" means:

(a) Liens in favor of Agent;

(b) Liens existing on the Closing Date which are disclosed in Schedule 1C;

(c) Liens for taxes, fees, assessments or other governmental charges or levies, either not yet delinquent or being contested in good faith by appropriate proceedings; provided, that Borrower maintains adequate reserves therefor in accordance with GAAP;

(d) Liens securing claims or demands of materialmen, artisans, mechanics, carriers, warehousemen, landlords and other like Persons arising in the ordinary course of business and imposed without action of such parties; provided, that the payment thereof is not yet required;

(e) Liens arising from judgments, decrees or attachments in circumstances which do not constitute an Event of Default hereunder;

(f) the following deposits, to the extent made in the ordinary course of business: deposits under worker's compensation, unemployment insurance, social security and other similar laws, or to secure the performance of bids, tenders or contracts (other than for the repayment of borrowed money) or to secure indemnity, performance or other similar bonds for the performance of bids, tenders or contracts (other than for the repayment of borrowed money) or to secure statutory obligations (other than Liens arising under ERISA or environmental Liens) or surety or appeal bonds, or to secure indemnity, performance or other similar bonds;

(g) Liens on Equipment or software or other intellectual property constituting purchase money Liens and Liens in connection with capital leases securing Indebtedness permitted in clause (c) of "Permitted Indebtedness";

(h) Liens incurred in connection with Subordinated Indebtedness;

(i) leasehold interests in leases or subleases and licenses (other than with respect to Intellectual Property) granted in the ordinary course of business and not interfering in any material respect with the business of the licensor;

(j) Liens in favor of customs and revenue authorities arising as a matter of law to secure payment of custom duties that are promptly paid on or before the date they become due;

(k) Liens on insurance proceeds securing the payment of financed insurance premiums that are promptly paid on or before the date they become due (provided that such Liens extend only to such insurance proceeds and not to any other property or assets);

(l) statutory and common law rights of set-off and other similar rights as to deposits of cash and securities in favor of banks, other depository institutions and brokerage firms or securities intermediaries to cover fees, similar expenses and charges;

(m) easements, servitudes, zoning restrictions, rights-of-way and similar encumbrances on real property imposed by law or arising in the ordinary course of business so long as they do not materially impair the value or marketability of the related property;

(n) licenses and other arrangements for the use of Intellectual Property permitted hereunder;

(o) (i) Liens on Cash securing obligations permitted under clause (g) of the definition of Permitted Indebtedness and (ii) security deposits in connection with real property leases, the combination of (i) and (ii) in an aggregate amount not to exceed $2,000,000 at any time;

(p) Liens on the Revenue Interest Collateral; and

(q) Liens incurred in connection with the extension, renewal or refinancing of the Indebtedness secured by Liens of the type described in clause (b) above; provided, that any extension, renewal or replacement Lien shall be limited to the property encumbered by the existing Lien and the principal amount of the Indebtedness being extended, renewed or refinanced (as may have been reduced by any payment thereon) does not increase.

"Permitted Transfers" means:

(a) sales of Inventory in the ordinary course of business;

(b) licenses and similar arrangements for the use of Intellectual Property in the ordinary course of business that could not result in a legal transfer of title of the licensed property that are non-exclusive or may be exclusive in respects other than territory or may be exclusive as to territory but only as to discreet geographical areas outside of the United States of America in the ordinary course;

(c) dispositions of worn-out, obsolete or surplus Equipment at fair market value in the ordinary course of business;

(d) use of Cash in the ordinary course of business or as otherwise permitted herein;

(e) use of Cash to repay Permitted RIF Indebtedness or deposit into the RIF Collateral Account, in each case, in accordance with the terms of this Agreement and the RIF Agreement;

(f) sale of stock or other shares in the ordinary course of business;

(g) transfers constituting the making of Permitted Investments, or the granting of Permitted Liens; and

(h) other transfers of assets having a fair market value of not more than $500,000 in the aggregate in any fiscal year.

"Qualified Cash" means an amount equal to (a) the amount of Borrower's Cash held in accounts subject to an Account Control Agreement in favor of Agent, minus (b) the Qualified Cash A/P Amount, and, for the avoidance of doubt, excludes any Cash required to be deposited in or credited to the RIF Collateral Account in accordance with Section 2.7(b) of the RIF Agreement.

"Subordinated Indebtedness" means Indebtedness subordinated to the Secured Obligations (excluding all Indebtedness owing under the RIF Agreement), in amounts and on terms and conditions satisfactory to Agent in its reasonable discretion and subject to a subordination agreement in form and substance satisfactory to Agent in its reasonable discretion.

(iii) Excluded Collateral. Section 3.2 of the Loan Agreement is hereby amended in its entirety and replaced with the following:

3.2 Excluded Collateral. Notwithstanding the broad grant of the security interest set forth in Section 3.1, above, the Collateral shall not include (a) more than 65%

of the presently existing and hereafter arising issued and outstanding Equity Interests owned by Borrower of any Foreign Subsidiary or Foreign Subsidiary Holding Company which Equity Interests entitle the holder thereof to vote for directors or any other matter,

(b) nonassignable licenses or contracts, including without limitation any licenses described in clause (b) of the defined term "Permitted Transfers", which by their terms require the consent of the licensor thereof or another party (but only to the extent such prohibition on transfer is enforceable under applicable law, including, without limitation, Sections 9406, 9407 and 9408 of the UCC), provided further, that upon the termination of such prohibition or such consent being provided with respect to any license or contract, such license or contract shall automatically be included in the Collateral, (c) property for which the granting of a security interest therein is contrary to applicable law, provided that upon the cessation of any such restriction or prohibition, such property shall automatically be included in the Collateral; (d) any Excluded Accounts; (e) any cash collateral deposit subject to a Permitted Lien hereunder, if the grant of a security interest with respect to such property pursuant to this Agreement would be prohibited by the agreement creating such Permitted Lien or would otherwise constitute a default thereunder or create a right of termination a party thereto (other than Borrower), provided that upon the termination and release of such cash collateral, such property shall automatically be included in the Collateral; (f) any lease, license or other agreement and any property subject thereto on the Closing Date or on the date of the acquisition of such property (other than any property acquired by a Loan Party subject to any such contract or other agreement to the extent such contract or other agreement was incurred in contemplation of such acquisition) to the extent that a grant of a security interest therein to secure the Secured Obligations would violate or invalidate such lease, license, contract or agreement or create a right of termination in favor of any other party thereto (other than the Borrower, any other Loan Party or any Subsidiary) (but (A) only to the extent such prohibition is enforceable under applicable law and (B) other than to the extent that any such term would be rendered ineffective pursuant to Sections 9-406, 9-408 or 9-409 (or any other Section) of Article 9 of the UCC); (g) any assets as to which the Agent in its reasonable discretion shall determine that the costs and burdens of obtaining or perfecting a security interest therein substantially outweigh the benefit to the Lenders of the security afforded thereby (including, without limitation, vehicles or other assets subject to a certificate of title); (h) any "intent to use" trademarks at all times prior to the first use thereof, whether by the actual use thereof in commerce, the recording of a statement of use with the United States Patent and Trademark Office or otherwise, provided, that upon submission and acceptance by the United States Patent and Trademark Office of an amendment to allege use of an intent-to-use trademark application pursuant to 15 U.S.C. Section 1060(a) (or any successor provision) such intent-to-use application shall constitute Collateral, (i) the Revenue Interest Collateral, and (j) any other assets as may be agreed by the Agent in writing in its sole discretion to be excluded from Collateral.

(iv) Indebtedness. Section 7.4 of the Loan Agreement is hereby amended in its entirety and replaced with the following:

7.4 Indebtedness. Borrower shall not create, incur, assume, guarantee or be or remain liable with respect to any Indebtedness, and shall not permit any Subsidiary to do so, other than Permitted Indebtedness, or prepay any Indebtedness or take any actions which impose on Borrower an obligation to prepay any Indebtedness, except (a) for the conversion of Indebtedness into equity securities and the payment of cash in lieu of fractional shares in connection with such conversion, (b) for purchase money Indebtedness pursuant to its then applicable payment schedule or with other purchase money

Indebtedness permitted hereunder, (c) for prepayment (i) by any Loan Party or Subsidiary of intercompany Indebtedness owed to Borrower, or (ii) by any Subsidiary that is not a Loan Party of intercompany Indebtedness owed by such Subsidiary to another Subsidiary that is not a Loan Party, or (d) as may be permitted under any Subordination Agreement,
(e) as otherwise permitted hereunder or approved in writing by Agent, (f) Permitted Indebtedness with the proceeds of other Permitted Indebtedness, and (g) in compliance with Section 7.23.

Notwithstanding anything to the contrary in the foregoing, the issuance of, performance of obligations under (including any payments of interest), and conversion, exercise, repurchase, redemption (including, for the avoidance of doubt, a required repurchase in connection with the redemption of Permitted Convertible Debt upon satisfaction of a condition related to the stock price of Borrower's common stock), settlement or early termination or cancellation of (whether in whole or in part and including by netting or set- off) (in each case, whether in cash, common stock of Borrower or, following a merger event or other change of the common stock of Borrower, other securities or property), or the satisfaction of any condition that would permit or require any of the foregoing, any Permitted Convertible Debt shall not constitute a prepayment of Indebtedness by Borrower for the purposes of this Section 7.4 provided that principal payments in cash (other than cash in lieu of fractional shares) shall only be allowed with respect to any repurchase in connection with the redemption of Permitted Convertible Debt upon satisfaction of a condition related to the stock price of Borrower's common stock if the Redemption Conditions are satisfied in respect of such redemption and at all times after such redemption.

(v) Collateral. Section 7.5 of the Loan Agreement is hereby amended in its entirety and replaced with the following:

7.5 Collateral. Borrower shall at all times keep the Collateral and all other property and assets used in Borrower's business or in which Borrower now or hereafter holds any interest free and clear from Liens whatsoever (except for Permitted Liens), and shall give Agent prompt written notice of any legal process that is reasonably likely to result in damages, expenses or liabilities in excess of $1,000,000 affecting the Collateral, the Intellectual Property, such other property or assets, or any Liens thereon, provided however, that the Collateral and such other property and assets may be subject to Permitted Liens. Borrower shall not agree with any Person other than Agent or Lenders not to encumber its property other than in connection with Permitted Liens. Borrower shall not enter into or suffer to exist or become effective any agreement that prohibits or limits the ability of Borrower to create, incur, assume or suffer to exist any Lien upon any of its property (including Intellectual Property), whether now owned or hereafter acquired, to secure its obligations under the Loan Documents to which it is a party other than (a) this Agreement and the other Loan Documents, (b) any agreements governing any purchase money Liens or capital lease obligations otherwise permitted hereby (in which case, any prohibition or limitation shall only be effective against the assets financed thereby)
(c) customary restrictions on the assignment of leases, licenses and other agreements and
(d)pursuant to the RIF Agreement. Borrower shall cause each of its Subsidiaries to protect and defend such Subsidiary's title to its assets from and against all Persons claiming any interest adverse to such Subsidiary, and Borrower shall cause each of its Subsidiaries at all times to keep such Subsidiary's property and assets free and clear from Liens whatsoever (except for Permitted Liens), and shall give Agent prompt written notice of any legal

process that is reasonably likely to result in damages, expenses or liabilities in excess of $500,000.

(vi) Deposit Accounts. Section 7.12 of the Loan Agreement is hereby amended in its entirety and replaced with the following:

7.12 Deposit Accounts. Other than Excluded Accounts, neither Borrower nor any Subsidiary (other than an Excluded Subsidiary) shall maintain any Deposit Accounts, or accounts holding Investment Property, except with respect to which Agent has an Account Control Agreement. Borrower shall at all times (a) maintain the RIF Collateral Account in accordance with the applicable terms of the RIF Agreement in all material respects, (b) ensure that any deposits into and withdrawals from the RIF Collateral Account are made for no purpose other than to comply with its requirements under Section 2.7 of the RIF Agreement in amounts not to exceed what is required under Article 2 of the RIF Agreement, and (c) ensure that each Compliance Certificate shall set out (i) the balance of the RIF Collateral Account as of the final day of the month ended immediately prior to the date of such Compliance Certificate, and (ii) a transaction report including all deposits into and withdrawals from the RIF Collateral Account, if any, for the month ended immediately prior to the date of such Compliance Certificate.

(vii) RIF Agreement. The following new Section 7.23 is inserted in Section 7 of the Loan Agreement immediately following Section 7.22:

7.23 RIF Agreement. Borrower shall (a) not, without the consent of Agent, make any payment under the RIF Agreement other than (i) the Royalty Payments pursuant to Section 2.2 of the RIF Agreement, (ii) the True Up Payments (as defined in the RIF Agreement) pursuant to Section 2.3(a) and 2.3(b) of the RIF Agreement, (iii) costs and expenses pursuant to Section 9.3 of the RIF Agreement, and (iv) subject to the following proviso, other payments due to the Investors under the RIF Agreement (whether or not initially to the RIF Collateral Account); provided, however, that (a) Borrower may not, without the written consent of the Agent, make any payment under the RIF Agreement (x) if an Event of Default exists under the Loan Agreement immediately prior to such payment or would result immediately after giving effect to such payment, (y) constituting the payment of any Pre-Regulatory Milestone Change of Control Price or Post-Regulatory Milestone Change of Control Price or (z) pursuant to Section 2.3(c) of the RIF Agreement, in the case of each of clause (x), (y) or (z), until such time as the Secured Obligations (other than contingent indemnity obligations) are fully paid, and the Lenders have no commitment or obligation to lend any further funds to Borrower under this Agreement, and (b) give prompt written notice to the Agent of any amendment, modification, waiver or termination of the RIF Agreement.

(viii) Other Obligations. Section 9.7 of the Loan Agreement is hereby amended in its entirety and replaced with the following:

9.7 Other Obligations.

(a) The occurrence of any default under any agreement or obligation of any Loan Party involving any Indebtedness in excess of $2,000,000;

(b) Any early payment is required or unwinding or termination occurs with respect to any Warrant, Permitted Bond Hedge Transaction and Permitted Warrant Transaction, or

any condition giving rise to the foregoing is met, in each case, with respect to which Borrower or its Affiliates is the "defaulting party" under the terms of such Warrant, Permitted Bond Hedge Transaction or Permitted Warrant Transaction; or

(c) The occurrence of any "Event of Default" (as defined in the RIF Agreement).

(ix) Schedule 1.1(a) to the Loan Agreement is hereby replaced with Schedule 1.1(a) attached hereto:

(b) **References Within Loan Agreement**. Each reference in the Loan Agreement to "this Agreement" and the words "hereof," "herein," "hereunder", or words of like import, shall mean and be a reference to the Loan Agreement as amended by this Amendment. This Amendment shall be a Loan Document.

SECTION 4 Conditions of Effectiveness. The effectiveness of this Amendment (the "First Amendment Effective Date") shall be subject to Agent's receipt of the following documents, in form and substance satisfactory to Agent, or, as applicable, the following conditions being met:

(a) this Amendment, executed by Agent, each Lender and Borrower;

(b) duly executed signatures to a Warrant issued by Phathom Pharmaceuticals, Inc. in favor of Incoming Lender;

(c) duly executed signatures to a Warrant issued by Phathom Pharmaceuticals, Inc. in favor of Hercules Private Credit Fund 1 L.P.;

(d) Borrower shall have paid (i) all invoiced costs and expenses then due in accordance with Section 8(d), and (ii) all other fees, costs and expenses, if any, due and payable as of the date hereof under the Loan Agreement; and

(e) on the First Amendment Effective Date, immediately after giving effect to the amendment of the Loan Agreement contemplated hereby:

(i) The representations and warranties contained in Section 5 shall be true and correct on and as of the First Amendment Effective Date as though made on and as of such date; and

(ii) There exist no Events of Default or events that with the passage of time would result in an Event of Default.

SECTION 5 Transfer of Commitments. Pursuant to Section 11.7 of the Loan Agreement: (a) Agent, in its capacity as a Lender, has (i) prior to the date hereof, transferred certain Term Commitments to Hercules Private Credit Fund 1 L.P. and (ii) on the date hereof shall transfer certain Term Commitments to the Incoming Lender, in each case, the same which are reflected on Schedule 1.1(a), and (b) the Incoming Lender hereby confirms that, on and with effect from the date hereof, it will assume the rights and obligations as a "Lender" under the Loan Documents. No transfer fee shall be payable in respect of this Section. Each Existing Lender agrees that Agent will distribute to each Existing Lender the *pro rata* amount of any fees payable in respect of the Term Commitments set out opposite its name in Schedule 1.1 for the period from when such fee began to accrue until the date hereof. Incoming Lender agrees to the terms and conditions set forth on Addendum 1 and Addendum 3 of the Loan Agreement.

SECTION 6 Representations and Warranties. To induce Agent and Lenders to enter into this Amendment, Borrower hereby confirms, as of the date hereof, (a) that the representations and warranties made by it in Section 5 of the Loan Agreement and in the other Loan Documents are true and correct in all material respects; *provided*, *however*, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; *provided, further,* that to the extent such representations and warranties by their terms expressly relate only to a prior date such representations and warranties shall be true and correct as of such prior date, and (a) that no Event of Default has occurred and is continuing; (b) that there has not been and there does not exist a Material Adverse Effect; (c) Lenders have and shall continue to have valid, enforceable and perfected first-priority liens, subject only to Permitted Liens, on and security interests in the Collateral and all other collateral heretofore granted by Borrower to Lenders (subject to the release of the security interest in and lien on the Revenue Interest Collateral in Section 7 of this Amendment below), pursuant to the Loan Documents or otherwise granted to or held by Lenders; (d) the agreements and obligations of Borrower contained in the Loan Documents and in this Amendment constitute the legal, valid and binding obligations of Borrower, enforceable against Borrower in accordance with their respective terms, except as the enforceability thereof may be limited by bankruptcy, insolvency or other similar laws of general application affecting the enforcement of creditors' rights or by the application of general principles of equity; and (e) the execution, delivery and performance of this Amendment by Borrower will not violate any law, rule, regulation, order, contractual obligation or organizational document of Borrower and will not result in, or require, the creation or imposition of any lien, claim or encumbrance of any kind on any of its properties or revenues. For the purposes of this Section 5, each reference in Section 5 of the Loan Agreement to "this Agreement," and the words "hereof", "herein", "hereunder", or words of like import in such Section, shall mean and be a reference to the Loan Agreement as amended by this Amendment.

SECTION 7 Release of Security Interests in Revenue Interest Collateral. Notwithstanding anything to the contrary contained herein or otherwise, effective immediately upon the entry into the RIF Agreement, without further action on the part of the parties hereto all security interests and other liens of every type at any time granted to or held by the Agent for the benefit of the Lenders with respect to the Revenue Interest Collateral as security for the obligations under the Loan Agreement and any other Loan Documents shall be automatically terminated and automatically released without further action by any Lender or the Agent. In furtherance of the foregoing, the Agent and the Lenders, as applicable, agree to execute and deliver to the Borrower any and all documents, certificates, agreements or filings necessary to evidence the release of the Agent's security interests in the Revenue Interest Collateral (such documents and filings to be prepared by the Borrower at Borrower's sole expense), including the filing of any UCC-3 amendments to financing statements solely related to the release of the Revenue Interest Collateral.

SECTION 8 Release. In consideration of the agreements of Agent and each Lender contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Borrower, on behalf of itself and its successors, assigns, and other legal representatives, hereby to the extent possible under applicable law fully, absolutely, unconditionally and irrevocably releases, remises and forever discharges Agent and each Lender, and its successors and assigns, and its present and former shareholders, affiliates, subsidiaries, divisions, predecessors, directors, officers, attorneys, employees, agents and other representatives (Agent, Lenders and all such other persons being hereinafter referred to collectively as the "**Releasees**" and individually as a "**Releasee**"), of and from all demands, actions, causes of action, suits, covenants, contracts, controversies, agreements, promises, sums of money, accounts, bills, reckonings, damages and any and all other claims, counterclaims, defenses, rights of set-off, demands and liabilities whatsoever of every name and nature, known or unknown, suspected or unsuspected, both at law and in equity, which Borrower, or any of its successors, assigns, or other legal representatives may now or hereafter own, hold, have or claim to have against the Releasees or any of them for, upon, or by reason of any circumstance, action, cause or thing whatsoever which arises at any time on

or prior to the day and date of this Amendment, for or on account of, or in relation to, or in any way in connection with the Loan Agreement, or any of the other Loan Documents or transactions thereunder or related thereto. Borrower understands, acknowledges and agrees that the release set forth above may be pleaded as a full and complete defense and may be used as a basis for an injunction against any action, suit or other proceeding which may be instituted, prosecuted or attempted in breach of the provisions of such release. Borrower agrees that no fact, event, circumstance, evidence or transaction which could now be asserted or which may hereafter be discovered shall affect in any manner the final, absolute and unconditional nature of the release set forth above.

SECTION 9 Miscellaneous.

(a) **Loan Documents Otherwise Not Affected; Reaffirmation; No Novation**.

(i) Except as expressly amended pursuant hereto or referenced herein, the Loan Agreement and the other Loan Documents shall remain unchanged and in full force and effect and are hereby ratified and confirmed in all respects. The Lenders' and Agent's execution and delivery of, or acceptance of, this Amendment shall not be deemed to create a course of dealing or otherwise create any express or implied duty by any of them to provide any other or further amendments, consents or waivers in the future.

(ii) Subject to the release of the security interest in and lien on the Revenue Interest Collateral in Section 7 of this Amendment above, Borrower hereby expressly (1) reaffirms, ratifies and confirms its Secured Obligations under the Loan Agreement and the other Loan Documents, (2) reaffirms, ratifies and confirms the grant of security under Section 3 of the Loan Agreement, (3) reaffirms that such grant of security in the Collateral secures all Secured Obligations under the Loan Agreement, including without limitation any Term Loan Advances funded on or after the First Amendment Effective Date, as of the date hereof, and with effect from (and including) the First Amendment Effective Date, such grant of security in the Collateral: (x) remains in full force and effect notwithstanding the amendments expressly referenced herein; and (y) secures all Secured Obligations under the Loan Agreement, as amended by this Amendment, and the other Loan Documents, (4) agrees that this Amendment shall be a "Loan Document" under the Loan Agreement, and (5) agrees that the Loan Agreement and each other Loan Document shall remain in full force and effect following any action contemplated in connection herewith.

(iii) This Amendment is not a novation and the terms and conditions of this Amendment shall be in addition to and supplemental to all terms and conditions set forth in the Loan Documents. Nothing in this Amendment is intended, or shall be construed, to constitute an accord and satisfaction of Borrower's Secured Obligations under or in connection with the Loan Agreement and any other Loan Document or to modify, affect or impair the perfection or continuity of Agent's security interest in, (on behalf of itself and the Lenders) security titles to or other liens on any Collateral for the Secured Obligations.

(b) **Conditions**. For purposes of determining compliance with the conditions specified in Section 4, each Lender that has signed this Amendment shall be deemed to have consented to, approved or accepted or to be satisfied with, each document or other matter required thereunder to be consented to or approved by or acceptable or satisfactory to the Lenders unless Agent shall have received notice from such Lender prior to the date hereof specifying its objection thereto.

(c) **No Reliance**. Borrower hereby acknowledges and confirms to Agent and Lenders that Borrower is executing this Amendment on the basis of its own investigation and for its own reasons without reliance upon any agreement, representation, understanding or communication by or on behalf of any other Person.

(d) **Costs and Expenses**. Borrower agrees to pay to Agent on the date hereof the out-of-pocket costs and expenses of Agent and each Lender party hereto, and the fees and disbursements of counsel to Agent and each Lender party hereto (including allocated costs of internal counsel) in connection with the negotiation, preparation, execution and delivery of this Amendment and any other documents to be delivered in connection herewith on the date hereof.

(e) **Binding Effect**. This Amendment binds and is for the benefit of the successors and permitted assigns of each party.

(f) **Governing Law.** THIS AMENDMENT AND THE OTHER LOAN DOCUMENTS SHALL BE GOVERNED BY, AND CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF CALIFORNIA, EXCLUDING CONFLICT OF LAWS PRINCIPLES THAT WOULD CAUSE THE APPLICATION OF LAWS OF ANY OTHER JURISDICTION.

(g) **Complete Agreement; Amendments**. This Amendment and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements with respect to such subject matter. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this Amendment and the Loan Documents merge into this Amendment and the Loan Documents.

(h) **Severability of Provisions.** Each provision of this Amendment is severable from every other provision in determining the enforceability of any provision.

(i) **Counterparts**. This Amendment may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, is an original, and all taken together, constitute one Amendment. Delivery of an executed counterpart of a signature page of this Amendment by facsimile, portable document format (.pdf) or other electronic transmission will be as effective as delivery of a manually executed counterpart hereof.

(j) **Electronic Execution of Certain Other Documents**. The words “execution,” “execute”, “signed,” “signature,” and words of like import in or related to any document to be signed in connection with this Amendment and the transactions contemplated hereby (including without limitation assignments, assumptions, amendments, waivers and consents) shall be deemed to include electronic signatures, the electronic matching of assignment terms and contract formations on electronic platforms approved by the Agent, or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the California Uniform Electronic Transactions Act, or any other similar state laws based on the Uniform Electronic Transactions Act.

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IN WITNESS WHEREOF, the parties hereto have duly executed this Amendment, as of the date first above written.

BORROWER:

PHATHOM PHARMACEUTICALS, INC.

Signature: /s/ Terrie Curran
Print Name: Terrie Curran
Title: President and Chief Executive Officer

[SIGNATURES CONTINUE ON THE NEXT PAGE]

AGENT:

HERCULES CAPITAL, INC.

Signature: /s/ Seth Meyer
Print Name: Seth Meyer
Title: Chief Financial Officer

LENDERS:

HERCULES CAPITAL, INC.

Signature: /s/ Seth Meyer
Print Name: Seth Meyer
Title: Chief Financial Officer

HERCULES CAPITAL IV, L.P.

By: Hercules Technology SBIC Management, LLC, its General Partner

By: Hercules Capital, Inc., its Manager

Signature: /s/ Seth Meyer
Print Name: Seth Meyer
Title: Chief Financial Officer

HERCULES PRIVATE CREDIT FUND 1 L.P.

By: Hercules Adviser LLC, its Investment Adviser

By: /s/ Seth Meyer
Print Name: Seth Meyer
Title: Authorized Signatory

HERCULES PRIVATE GLOBAL VENTURE GROWTH FUND I L.P.

By: Hercules Adviser LLC, its Investment Adviser

Signature: /s/ Seth Meyer

Print Name: Seth Meyer
Title: Authorized Signatory

INCOMING LENDER:

SAGARD HEALTHCARE ROYALTY PARTNERS, LP

By: Sagard Healthcare Royalty Partners GP LLC, its general partner

Signature: /s/ Jason Sneah

Print Name: Jason Sneah Title: Manager

Signature: /s/ Adam Vigna

Print Name: Adam Vigna
Title: Chief Investment Officer

PHATHOM PHARMACEUTICALS, INC.

AMENDED AND RESTATED NON-EMPLOYEE DIRECTOR COMPENSATION PROGRAM
(effective as of May 25, 2022)

Non-employee members of the board of directors (the "***Board***") of Phathom Pharmaceuticals, Inc. (the "***Company***") shall receive cash and equity compensation as set forth in this Non-Employee Director Compensation Program (this "***Program***"). This Program has been adopted under the Company's 2019 Incentive Award Plan (the "***Equity Plan***") and shall be effective on the Effective Date. The cash and equity compensation described in this Program shall be paid or be made, as applicable, automatically and without further action of the Board, to each member of the Board who is not an employee of the Company or any parent or subsidiary of the Company (each, a "***Non-Employee Director***") who is entitled to receive such cash or equity compensation, unless such Non-Employee Director declines the receipt of such cash or equity compensation by written notice to the Company. This Program shall remain in effect until it is revised or rescinded by further action of the Board. This Program may be amended, modified or terminated by the Board at any time in its sole discretion. The terms and conditions of this Program shall supersede any prior cash and/or equity compensation arrangements for service as a member of the Board between the Company and any of its Non-Employee Directors. No Non-Employee Director shall have any rights hereunder, except with respect to stock options granted pursuant to the Program. Capitalized terms not otherwise defined herein shall have the meanings ascribed in the Equity Plan.

1. Cash Compensation.

(a) Annual Retainers. Each Non-Employee Director shall receive an annual retainer of $50,000 for service on the Board.

(b) Additional Annual Retainers. In addition, each Non-Employee Director shall receive the following additional annual retainers, as applicable:

(i) Chairperson of the Board. A Non-Employee Director serving as Chairperson of the Board shall receive an additional annual retainer of $40,000 for such service.

(ii) Audit Committee. A Non-Employee Director serving as Chairperson of the Audit Committee shall receive an additional annual retainer of $20,000 for such service. A Non-Employee Director serving as a member of the Audit Committee (other than the Chairperson) shall receive an additional annual retainer of $10,000 for such service.

(iii) Compensation Committee. A Non-Employee Director serving as Chairperson of the Compensation Committee shall receive an additional annual retainer of $15,000 for such service. A Non-Employee Director serving as a member of the Compensation Committee (other than the Chairperson) shall receive an additional annual retainer of $7,500 for such service.

(iv) Nominating and Corporate Governance Committee. A Non-Employee Director serving as Chairperson of the Nominating and Corporate Governance Committee shall receive an additional annual retainer of $10,000 for such service. A Non-Employee Director serving as a member of the Nominating and Corporate Governance Committee (other than the Chairperson) shall receive an additional annual retainer of $5,000 for such service.

(c) Payment of Retainers. The annual retainers described in Sections 1(a) and 1(b) shall be earned on a quarterly basis based on a calendar quarter and shall be paid by the Company in arrears on

a semi-annual basis not later than the forty-fifth day following the end of every other calendar quarter (i.e., August 15 and February 15). In the event a Non-Employee Director does not serve as a Non-Employee Director, or in the applicable positions described in Section 1(b), for an entire calendar quarter, the retainer paid to such Non-Employee Director shall be prorated for the portion of such calendar quarter actually served as a Non-Employee Director, or in such position, as applicable.

2. Equity Compensation. Non-Employee Directors shall be granted the equity awards described below. The awards described below shall be granted under and shall be subject to the terms and provisions of the Equity Plan, or any other applicable Company equity incentive plan then-maintained by the Company, and shall be granted subject to the execution and delivery of award agreements, including attached exhibits, in substantially the forms previously approved by the Board. All applicable terms of the Equity Plan apply to this Program as if fully set forth herein, and all grants of stock options hereby are subject in all respects to the terms of the Equity Plan and the applicable award agreement. For the avoidance of doubt, the share numbers in this Program already give effect to the forward stock split of the Company's common stock to be effected by the Company in connection with its initial public offering.

(a) Initial Awards. Each Non-Employee Director who is initially elected or appointed to the Board after the Effective Date shall receive an option under the Equity Plan, or any other applicable Company equity incentive plan then-maintained by the Company, to purchase 30,000 shares of the Company's common stock on the date of such initial election or appointment. The awards described in this Section 2(a) shall be referred to as "***Initial Awards***." No Non-Employee Director shall be granted more than one Initial Award.

(b) Subsequent Awards. A Non-Employee Director who (i) is serving on the Board as of the date of any annual meeting of the Company's stockholders after the Effective Date and has been serving as a Non-Employee Director for at least six months as of the date of such meeting, and (ii) will continue to serve as a Non-Employee Director immediately following such meeting, shall be automatically granted an option under the Equity Plan, or any other applicable Company equity incentive plan then-maintained by the Company, to purchase 15,000 of the Company's common stock on the date of such annual meeting. The awards described in this Section 2(b) shall be referred to as "***Subsequent Awards***." For the avoidance of doubt, a Non-Employee Director elected for the first time to the Board at an annual meeting of the Company's stockholders shall only receive an Initial Award in connection with such election, and shall not receive any Subsequent Award on the date of such meeting as well.

(c) Termination of Employment of Employee Directors. Members of the Board who are employees of the Company or any parent or subsidiary of the Company who subsequently terminate their employment with the Company and any parent or subsidiary of the Company and remain on the Board will not receive an Initial Award pursuant to Section 2(a) above, but to the extent that they are otherwise entitled, will receive, after termination from employment with the Company and any parent or subsidiary of the Company, Subsequent Awards as described in Section 2(b) above.

(d) Terms of Awards Granted to Non-Employee Directors

(i) Purchase Price. The per share exercise price of each option granted to a Non-Employee Director shall equal the Fair Market Value of a share of common stock on the date the option is granted.

(ii) Vesting. One-third of each Initial Award shall vest and become exercisable on the one (1)-year anniversary of the date of grant, and the remainder will vest in substantially equal quarterly installments over the twenty-four (24) months following the date of grant, subject to the Non-Employee Director continuing in service on the Board through each such vesting date. Each Subsequent Award shall

vest and/or become exercisable on the first to occur of (A) the first anniversary of the date of grant or (B) the next occurring annual meeting of the Company's stockholders, subject to the Non-Employee Director continuing in service on the Board through such vesting date. Unless the Board otherwise determines, no portion of an Initial Award or Subsequent Award which is unvested and/or exercisable at the time of a Non-Employee Director's termination of service on the Board shall become vested and/or exercisable thereafter. Upon a Change in Control, all outstanding equity awards granted under the Equity Plan, and any other equity incentive plan maintained by the Company, that are held by a Non-Employee Director shall become fully vested and/or exercisable, irrespective of any other provisions of the Plan or any award agreement.

(iii) Term. The term of each stock option granted to a Non-Employee Director shall be ten (10) years from the date the option is granted.

3. Compensation Limits. Notwithstanding anything to the contrary in this Program, all compensation payable under this Program will be subject to any limits on the maximum amount of Non-Employee Director compensation set forth in the Equity Plan, as in effect from time to time.

4. Reimbursements. The Company shall reimburse each Non-Employee Director for all reasonable, documented, out-of-pocket travel and other business expenses incurred by such Non-Employee Director in the performance of his or her duties to the Company in accordance with the Company's applicable expense reimbursement policies and procedures as in effect from time to time.

* * * * *

TRANSITION AND SEPARATION AGREEMENT AND RELEASE OF CLAIMS

This Transition and Separation Agreement and Release of Claims (the "***Agreement***") is entered into by and among Anthony Guzzo ("***Executive***") and Phathom Pharmaceuticals, Inc. (the "***Company***").

RECITALS

WHEREAS, Executive currently serves as the Chief Accounting Officer of the Company and has expressed an intention to voluntarily resign his position with the Company;

WHEREAS, in order to ensure a smooth transition of Executive's duties, the Company desires for Executive to continue employment with the Company through August 15, 2022 (such date, or any earlier date on which Executive's employment terminates for any reason, "***Separation Date***");

WHEREAS, in recognition of Executive's past services and contributions to the Company and agreement to continue his employment and ensure a smooth transition, the Company desires to provide Executive with the Separation Benefits (as defined below); and

WHEREAS, the parties hereto desire to set forth in writing the terms and conditions governing Executive's continued employment and eligibility to receive the Separation Benefits.

NOW THEREFORE, in consideration of the mutual promises contained herein, the adequacy of which is hereby acknowledged by each party, Executive and the Company hereby agree as follows:

AGREEMENT

1. Effective Date. This Agreement shall be effective April 5, 2022 (the "***Effective Date***").

2. Employment Period.

(a) During the period commencing on Effective Date and ending on the Separation Date (the "***Employment Period***"), Executive shall remain an employee of the Company and shall report to the Company's Chief Financial and Business Officer and shall devote such portion of his business time and attention to his duties to the Company as is mutually agreed with the Company's Chief Financial and Business Officer. During the Employment Period, Executive will continue to be paid the same base salary as in effect immediately prior to the execution of this Agreement and shall continue to be entitled to participate in all employee benefit plans in which Executive is currently participating (to the extent such benefits continue to be offered to other Company employees), in accordance with the terms of such plans, as they may be in effect from time to time. Except as provided in Section 3(b) below, Executive acknowledges that he will not be eligible for an annual bonus for 2022. Notwithstanding anything herein, Executive's employment with the Company shall remain "at-will," meaning that both Executive and the Company have the right to terminate Executive's employment with the Company at any time, for Executive reason, with or without notice, subject to the terms of this Agreement. If Executive's employment terminates for any reason, Executive shall not be entitled to any termination or severance payments or benefits other than as provided in this Agreement.

(b) The Company will reimburse Executive for any and all reasonable and necessary business expenses incurred by Executive in connection with the performance of his job duties prior to the Separation

Date in accordance with the Company's policies, which expenses shall be submitted to the Company with supporting receipts and/or documentation no later than thirty (30) days after the Separation Date.

(c) Subject to Section 3(d) below, Executive's entitlement to health benefits from the Company, and eligibility to participate in the Company's health benefit plans, shall cease on the last day of the calendar month during which the Separation Date occurs, except to the extent Executive elects to and is eligible to receive continued healthcare coverage pursuant to the provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("***COBRA***"), for himself and any covered dependents. Executive's entitlement to other benefits from the Company, and eligibility to participate in the Company's other benefit plans and programs, shall cease on the Separation Date.

3. Separation Date Matters.

(a) The Separation Date will be the termination date of Executive's employment with the Company for all purposes, including active participation in and coverage under all benefit plans and programs sponsored by or through the Company, except as provided in this Agreement. Executive hereby confirms his termination from all positions he holds with the Company effective as of the Separation Date. In accordance with applicable law, following the Separation Date, the Company will issue to Executive his final paycheck, reflecting his earned but unpaid base salary through the Separation Date.

(b) Provided the Separation Date occurs as a result of (i) the expiration of the Employment Period on August 15, 2022, or (ii) any earlier termination of Executive's employment by the Company, including as a result of Executive's death or disability (other than due to (x) circumstances described as "Cause" definition under the Company's 2019 Incentive Award Plan or (y) Executive's material breach of Section 5 hereof (such termination pursuant to clauses (x) or (y), a "***Cause Termination***"), and other than as a result of Executive's resignation, and subject to Executive's continued compliance with Section 5, including Section 5(e) regarding the return of Company property, and the occurrence of the Release Effective Date (as defined below), in addition to the amounts set forth in Section 3(a), Executive shall be entitled to receive the following separation benefits (the "***Separation Benefits***"):

i. If the Separation Date occurs prior to August 15, 2022, an amount equal to Executive's base salary for the period commencing on the Separation Date through and including August 15, 2022, payable in a lump sum on the first regular Company payroll date following the Release Effective Date;

ii. Executive shall be entitled to payment of a pro-rated target bonus for 2022, reflecting the portion of 2022 that has elapsed prior to the Separation Date, payable in a lump sum on the first regular Company payroll date following the Release Effective Date;

iii. Executive holds stock options (the "***Stock Options***") to purchase shares of the Company's common stock issued to Executive by the Company pursuant to certain stock option agreements (the "***Stock Option Agreements***"). All of Executive's vested Stock Options as of the Separation Date may be exercised by Executive until December 31, 2022. Executive hereby agrees and acknowledges that, notwithstanding any provisions in any other agreement between Executive and the Company to the contrary, including the Stock Option Agreements and the equity plan pursuant to which they were granted, on the Separation Date, any portion of the Stock Options and all other unvested equity awards (excluding performance share units ("***PSUs***") held by Executive) held by Executive and outstanding as of the Separation Date shall be cancelled, surrendered and forfeited by Executive for no consideration immediately upon the Separation Date;

iv. Executive holds PSUs issued to Executive by the Company pursuant to certain PSU award agreements (the "***PSU Agreements***"). Notwithstanding any provisions in any other agreement between Executive and the Company to the contrary, including the PSU Agreements and the equity plan pursuant to which the PSUs were granted, all of Executive's PSUs as of the Separation Date will not be canceled and Executive will remain eligible to vest in such PSUs in accordance with their terms.

v. For the period beginning on the Separation Date and ending on April 30, 2023 (or, if earlier, (i) the date on which the applicable continuation period under COBRA expires, or (ii) the date on which Executive becomes eligible to receive the equivalent or increased healthcare coverage by means of subsequent employment or self- employment) (such period, the "***COBRA Coverage Period***"), the Company shall pay for or reimburse Executive on a monthly basis for an amount equal to (x) the monthly premium Executive and/or Executive's covered dependents, as applicable, are required to pay for continuation coverage pursuant to COBRA for Executive and/or Executive's eligible dependents, as applicable, who were covered under the Company's health plans as of the Separation Date (calculated by reference to the premium as of the Separation Date) less (y) the amount Executive would have had to pay to receive group health coverage for Executive and/or Executive's covered dependents, as applicable, based on the cost sharing levels in effect on the Separation Date. If the Company cannot provide the foregoing benefits in a manner that is exempt from Section 409A of the Internal Revenue Code of 1986, as amended (the "***Code***"), or that is otherwise compliant with applicable law (including, without limitation, Section 2716 of the Public Health Service Act), instead of providing the payments or reimbursements as set forth above, the Company shall instead pay to Executive the foregoing monthly amount as a taxable monthly payment for the COBRA Coverage Period (or any remaining portion thereof). Executive shall be solely responsible for all matters relating to continuation of coverage pursuant to COBRA, including, without limitation, the election of such coverage and the timely payment of premiums. Executive shall notify the Company immediately if he becomes eligible to receive the equivalent or increased healthcare coverage by means of subsequent employment or self-employment.

(c) As a condition to Executive's receipt of the foregoing Separation Benefits pursuant to this Section 2(d), Executive shall execute (but not prior to the Separation Date) and not revoke a general release of all claims in favor of the Company (the "***Release***") in the form attached hereto as Exhibit B. The date on which Executive's Release becomes effective in accordance with its terms is referred to as the "***Release Effective Date***."

(b) The Separation Benefits shall be the exclusive severance benefits to which Executive is entitled, unless Executive has breached the provisions of this Agreement, in which case Section 5(e) shall apply. Executive understands that Executive will not be entitled to the Separation Benefits under this Agreement if the Release Effective Date does not occur on or before the date that is thirty (30) calendar days following the Separation Date, or in the event Executive breaches the terms of the PIIA or this Agreement. Executive acknowledges that, other than the compensation set forth in Section 2 above paid to him as provided therein and the Separation Benefits set forth in this Section 3, he has or will have received all wages, accrued but unused vacation or paid time off, and other benefits due him as a result of his employment or service with and termination from the Company.

4. Release.

(a) Executive agrees not to sue, or otherwise file any claim against, the Company or its parent companies, subsidiaries or affiliates, and any of their respective successors, assigns, directors, officers, managers, employees, attorneys, insurers, or agents, each in their respective capacities as such (collectively, the "***Company Parties***"), for any reason whatsoever based on anything that has occurred at any time up to and including the execution date of this Agreement as follows:

(i) On behalf of Executive and his executors, administrators, heirs and assigns, Executive hereby releases and forever discharge the Company Parties, and all persons acting by, through, under or in concert with them, or any of them, of and from any and all manner of action or actions, cause or causes of action, in law or in equity, suits, debts, liens, contracts, agreements, promises, liability, claims, demands, damages, loss, cost or expense, of any nature whatsoever, known or unknown, fixed or contingent (hereinafter called "***Claims***"), which Executive now has or may hereafter have against any of the Company Parties by reason of any matter, cause, or thing whatsoever from the beginning of time through and including the execution date of this Agreement, including, without limiting the generality of the foregoing: any Claims arising directly or indirectly out of, relating to, or in any other way involving in any manner whatsoever Executive's employment by the Company or its affiliates or the separation thereof, including without limitation any and all Claims arising under federal, state, or local laws relating to employment; any Claims of any kind that may be brought in any court or administrative agency; any Claims arising under Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1991, the Equal Pay Act, the Civil Rights Act of 1866, Section 1981, 42 U.S.C. § 1981, the Family and Medical Leave Act of 1993, the Americans with Disabilities Act of 1990, the False Claims Act, the Employee Retirement Income Security Act, the Worker Adjustment and Retraining Notification Act, the Fair Labor Standards Act, the Sarbanes-Oxley Act of 2002, the National Labor Relations Act of 1935, the Uniformed Services Employment and Reemployment Rights Act of 1994, Fair Credit Reporting Act, New Jersey's Conscientious Employee Protection Act, the New Jersey Soldiers' and Sailors' Civil Relief Act, Millville Dallas Airmotive Plant Job Loss Notification Act, New Jersey Family Leave Act, New Jersey Law Against Discrimination, New Jersey Security and Financial Empowerment Act, New Jersey State Wage and Hour Law, New Jersey Paid Sick Leave Law, and New Jersey State Wage Payment Law, or any similar state law, each of the foregoing as may have been amended, and any other federal, state, or local statute, regulation, ordinance, constitution, or order concerning labor or employment, termination of labor or employment, wages and benefits, retaliation, leaves of absence, or any other term or condition of employment; Claims for breach of contract; Claims for unfair business practices; Claims arising in tort, including, without limitation, Claims of wrongful dismissal or discharge, discrimination, harassment, retaliation, fraud, misrepresentation, defamation, libel, infliction of emotional distress, violation of public policy, and/or breach of the implied covenant of good faith and fair dealing; and Claims for damages or other remedies of any sort, including, without limitation, compensatory damages, punitive damages, injunctive relief and attorney's fees.

(ii) Notwithstanding the generality of the foregoing, Executive does not release any Claims that cannot be released as a matter of law including, without limitation, (A) Executive's right to file for unemployment insurance benefits or any state disability insurance benefits pursuant to the terms of applicable state law; (B) Executive's right to file claims for workers' compensation insurance benefits under the terms of any worker's compensation insurance policy or fund of the Company; (C) Executive's right to file a charge of discrimination, harassment, interference with leave rights, failure to accommodate, or retaliation with the Equal Employment Opportunity Commission or any other federal, state or local government agency, or to cooperate with or participate in any investigation conducted by such agency; provided, however, that Executive hereby releases Executive's right to receive damages in any such proceeding brought by Executive or on Executive's behalf; (D) Executive's right to communicate directly with the U.S. Securities and Exchange Commission, the U.S. Commodity Futures Trading Commission, the U.S. Department of Justice or similar agency, or to cooperate with or participate in any investigation by such agency; or (E) Executive's right to make any disclosure that are protected under the whistleblower provisions of applicable law. For the avoidance of doubt, Executive does not need to notify or obtain the prior authorization of the Company to exercise any of the foregoing rights. Furthermore, Executive does not release hereby any rights that Executive may have relating to (x) indemnification by the Company or its affiliates under any indemnification agreement with the Company, the Company's Bylaws or any applicable law or under any applicable insurance policy with respect to Executive's liability as an employee of the Company; (y) Executive's vested accrued benefits under the Company's respective benefits and compensation plans; and (z) any Claims for breach of this Agreement.

(b) Executive represents and warrants that he is the sole owner of all Claims relating to his employment or service with the Company and/or with any predecessor of the Company and that he has not assigned or transferred any Claims relating to his employment or service to any other person or entity. Executive understands and agrees that the Agreement will not be construed at any time as an admission of liability or wrongdoing by either the Company or Executive.

5. Restrictive Covenants.

(a) Executive hereby expressly reaffirms his obligations under the Company's Proprietary Information and Inventions Assignment Agreement between Executive and the Company, which is attached hereto as Exhibit A and incorporated herein by reference ("***PIIA***") and agrees that such obligations shall survive the Separation Date.

(b) Executive agrees that for one (1) year immediately following the Separation Date, Executive shall not interfere with the business of the Company by (i) soliciting or attempting to solicit any employee or consultant of the Company to terminate such employee's or consultant's employment or service in order to become an employee, consultant or independent contractor to or for any other person or entity or (ii) soliciting or attempting to solicit any vendor, supplier, customer or other person or entity either directly or indirectly, to direct his, her or its purchase of the Company's products and/or services to any person, firm, corporation, institution or other entity in competition with the business of the Company.

(c) Executive agrees that Executive will not make any negative or disparaging statements or comments about Company, its employees, officers, directors, shareholders, vendors, products or services, business, technologies, market position or performance. The Company agrees that it shall not, and shall cause its directors and executive officers not to, make any negative or disparaging statements or comments about Executive. Nothing in this Section 5(c) will prohibit Executive or the Company from providing truthful information in response to a subpoena or other legal process.

(d) By signing below, Executive represents and warrants that, upon the Separation Date, he will return to the Company all Company documents (and all copies thereof) and other Company property that Executive has or had in his possession at any time, including but not limited to Company files, notes, drawings, records, business plans and forecasts, financial information, specification, computer-recorded information, tangible property (including, but not limited to, computers, laptops, pagers, etc.), credit cards, entry cards, identification badges and keys and any materials of any kind which contain or embody any proprietary or confidential information of Company (and all reproductions thereof). Executive understands that he is bound by any and all confidential/proprietary/trade secret information, non-disclosure and inventions assignment agreement(s) signed by Executive in connection with his employment with Company, including the PIIA, pursuant to the terms of such agreement(s). Executive's compliance with this Section 5(d) shall be a condition to his receipt of the Separation Benefits.

(e) In addition to all other rights and remedies available to the Company under law or in equity, the Company shall be entitled to withhold all Separation Benefits from Executive in the event of his breach of this Section 5.

(f) Nothing herein shall be construed to prohibit Executive from communicating directly with, cooperating with, or providing information to, any government regulator, including, but not limited to, the U.S. Securities and Exchange Commission, the U.S. Commodity Futures Trading Commission, or the U.S. Department of Justice. Executive acknowledges that the Company has provided Executive with the following notice of immunity rights in compliance with the requirements of the Defend Trade Secrets Act: (i) Executive shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of proprietary information that is made in confidence to a Federal, State, or local government

official or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, (ii) Executive shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of proprietary information that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal, and (iii) if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the proprietary information to Executive's attorney and use the proprietary information in the court proceeding, if Executive files any document containing the proprietary information under seal, and does not disclose the proprietary information, except pursuant to court order.

(g) For purposes of this Section 5, the term "***Company***" means not only the Company, but also as any company, partnership or entity which, directly or indirectly, controls, is controlled by or is under common control with such entities.

6. Cooperation. As a condition of his receipt of the Separation Benefits, Executive agrees that, upon reasonable notice and without the necessity of Company obtaining a subpoena or court order, he will provide reasonable cooperation to Company in connection with any suit, action or proceeding (or any appeal from any suit, action or proceeding), or the decision to commence on behalf of the Company any suit, action or proceeding, any investigation and/or any defense of any claims asserted against the Company or any of the Company's current or former directors, officers, employees, partners, stockholders, agents or representatives of any of the foregoing, and any ongoing or future investigation or dispute or claim of any kind involving the Company that relates to events occurring during his employment as to which he may have relevant information and any other matter for which he was responsible or had knowledge of through the Separation Date. Such cooperation may include, but will not be limited to, providing background information within Executive's knowledge; aiding in the drafting of declarations; executing declarations or similar documents; testifying or otherwise appearing at investigation interviews, depositions, arbitrations or court hearings; and preparing for the above-described or similar activities. Upon the reasonable request of Company, Executive agrees to cooperate with the transition of his job responsibilities following the Separation Date and cooperate in providing information on matters on which he was involved while an employee. If cooperation from Executive exceeds twenty (20) hours the Company shall compensate Executive at a reasonable fair market value rate for his time.

7. Section 409A.

(a) To the extent applicable, this Agreement shall be interpreted in accordance with Section 409A of the Code and Department of Treasury regulations and other interpretive guidance issued thereunder. The intent of the parties is that payments and benefits under this Agreement comply with, or be exempt from Section 409A of the Code and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance with such intention. To the extent that any provision in this Agreement is ambiguous as to its compliance with or exemption from Section 409A of the Code, the provision shall be read in such a manner that no payments payable under this Agreement shall be subject to an "additional tax" as defined in Section 409A(a)(1)(B) of the Code. For purposes of Section 409A of the Code, any right to a series of installment payments under this Agreement shall be treated as a right to a series of separate payments.

(b) The parties acknowledge that the Separation Date will constitute the date of Executive's "separation from service" (as defined in Treasury Regulation Section 1.409A-1(h)) ("Separation from Service").

(c) If Executive is a "specified employee" (as defined in Section 409A of the Code), as determined by the Company in accordance with Section 409A of the Code, on the Separation Date, to the extent that the payments or benefits under this Agreement are "non-qualified deferred compensation" subject to

Section 409A of the Code and the delayed payment or distribution of all or any portion of such amounts to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A(a)(2)(B)(i) of the Code, then such portion deferred pursuant to this Section 8(c) shall be paid or distributed to Executive in a lump sum on the earlier of (i) the date that is six (6) months and one day following Executive's Separation from Service, (ii) the date of Executive's death, or (iii) the earliest date as is permitted under Section 409A of the Code. Any remaining payments due under this Agreement shall be paid as otherwise provided herein.

(d) Any reimbursement of expenses or in-kind benefits payable under this Agreement shall be made in accordance with Treasury Regulation Section 1.409A-3(i)(1)(iv) and shall be paid on or before the last day of Executive's taxable year following the taxable year in which Executive incurred the expenses. The amount of expenses reimbursed or in-kind benefits payable in one year shall not affect the amount eligible for reimbursement or in-kind benefits payable in any other taxable year of Executive's, and Executive's right to reimbursement for such amounts shall not be subject to liquidation or exchange for any other benefit.

8. Arbitration and Venue. Executive and the Company agree that any and all disputes, claims, and causes of action, in law or equity, in any way arising out of or relating to the terms of this Agreement, Executive's employment relationship with the Company, or the termination of Executive's employment with the Company, shall be resolved, to the fullest extent permitted by law, by final, binding and confidential arbitration in the State of New Jersey, conducted before a single neutral arbitrator selected and administered in accordance with the employment arbitration rules & procedures or then applicable equivalent rules of JAMS (the "***JAMS Rules***") and the Federal Arbitration Act, 9 U.S.C. Sec. 1, et seq. A copy of the JAMS Rules may be found on the JAMS website at www.jamsadr.com and will be provided to Executive by the Company upon request. Judgment may be entered on the arbitrator's award in any court having jurisdiction. Nothing in this Section 9 is intended to prevent either Executive or the Company from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration. For purposes of settling any dispute or controversy arising hereunder or for the purpose of entering any judgment upon an award rendered by the arbitrator, the Company and Executive hereby consent to the jurisdiction of any or all of the following courts: (i) the United States District Court for the District of New Jersey or (ii) any of the courts of the State of New Jersey. The Company and Executive hereby waive, to the fullest extent permitted by applicable law, any objection which it or he may now or hereafter have to such courts' jurisdiction and any defense of inconvenient forum with respect to such courts. The Company and Executive hereby agree that a judgment upon an award rendered by the arbitrator may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law. This Section 9 shall not apply to any claims of violation of any federal or state employment discrimination laws. BY AGREEING TO THIS ARBITRATION PROCEDURE, EXECUTIVE AND THE COMPANY WAIVE THE RIGHT TO RESOLVE ANY SUCH DISPUTE, CLAIM OR DEMAND THROUGH A TRIAL BY JURY OR JUDGE OR BY ADMINISTRATIVE PROCEEDING IN ANY JURISDICTION.

9. Notices. All notices or other communications required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given when delivered personally or one (1) business day after being sent by a nationally recognized overnight delivery service, charges prepaid. Notices also may be given electronically via PDF and shall be effective on the date transmitted if confirmed within forty-eight (48) hours thereafter by a signed original sent in the manner provided in the preceding sentence. Notice to Executive shall be sent to his most recent residence and personal email address on file with the Company. Notice to the Company shall be sent to its physical address set forth on the first page hereto and addressed to the Chief Administrative Officer at the email address provided by the Company for such person.

10. Entire Agreement. This Agreement, the PIIA, the Stock Option Agreements and the PSU Agreements constitute the entire agreement and understanding between the parties as to the subject matter herein and supersede all prior or contemporaneous agreements whether written or oral including, without limitation, Executive's offer letter dated March 1, 2020, which is expressly terminated and superseded. The invalidity or unenforceability of any provision or provisions of this Agreement will not affect the validity or enforceability of any other provision hereof, which will remain in full force and effect. The terms in this Agreement may only be modified in writing and signed by Executive and an authorized officer of the Company. In the event of any conflict between any of the terms in this Agreement and the terms of any other agreement between Executive and the Company, the terms of this Agreement will control.

11. Severability. Should any provision of the Agreement be determined by an arbitrator, court of competent jurisdiction or government agency to be wholly or partially invalid or unenforceable, the legality, validity and enforceability of the remaining parts, terms or provisions are intended to remain in full force and effect. Specifically, should a court, arbitrator or agency conclude that a particular claim may not be released as a matter of law, it is the intention of the parties that the general release and the waiver of unknown claims above will otherwise remain effective to release any and all other claims. Executive acknowledges that he has obtained sufficient information to intelligently exercise his own judgment regarding the terms of the Agreement before executing the Agreement.

12. Governing Law. This Agreement will be governed by and construed in accordance with the laws of the United States of America and the State of New Jersey applicable to contracts made and to be performed wholly within such State, and without regard to the conflicts of laws principles thereof.

13. Non-transferability of Interest. None of the rights of Executive to receive any form of compensation payable pursuant to this Agreement shall be assignable or transferable except through a testamentary disposition or by the laws of descent and distribution upon the death of Executive. Any attempted assignment, transfer, conveyance, or other disposition (other than as aforesaid) of any interest in the rights of Executive to receive any form of compensation to be made by the Company pursuant to this Agreement shall be void.

14. Construction. The language in all parts of this Agreement shall in all cases be construed simply, according to its fair meaning, and not strictly for or against any of the parties hereto. Without limitation, there shall be no presumption against any party on the ground that such party was responsible for drafting this Agreement or any part thereof. Where the context so requires, the use of the masculine gender shall include the feminine and/or neuter genders and the singular shall include the plural, and vice versa, and the word "person" shall include any corporation, firm, partnership or other form of association.

15. Withholding and Other Deductions. All compensation payable to Executive hereunder shall be subject to such deductions as the Company is from time to time required to make pursuant to law, governmental regulation or order.

16. Knowing and Voluntary. Executive represents and agrees that, prior to signing this Agreement, Executive has had the opportunity to discuss the terms of this Agreement with legal counsel of his choosing. Executive further represents and agrees that he is entering into this Agreement knowingly and voluntarily. Executive affirms that no promise was made to cause him to enter into this Agreement, other than what is promised in this Agreement. Executive further confirms that he has not relied upon any other statement or representation by anyone other than what is in this Agreement as a basis for his agreement. Executive acknowledges and agrees that neither the Company nor the Company's counsel has provided any legal or tax advice to Executive and that Executive is free to, and is hereby advised to, consult with a legal or tax advisor of his choosing.

17. Counterparts. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one instrument. Execution and delivery of this Agreement by facsimile or other electronic signature is legal, valid and binding for all purposes.

[Signature page follows]

EXECUTIVE'S ACCEPTANCE OF AGREEMENT

BEFORE SIGNING HIS NAME TO THIS AGREEMENT, EXECUTIVE STATES THE FOLLOWING: EXECUTIVE HAS READ THE AGREEMENT, HE UNDERSTANDS IT AND HE KNOWS THAT HE IS GIVING UP IMPORTANT RIGHTS. HE HAS OBTAINED SUFFICIENT INFORMATION TO INTELLIGENTLY EXERCISE HIS OWN JUDGMENT. HE HAS BEEN ADVISED THAT HE SHOULD CONSULT WITH AN ATTORNEY BEFORE SIGNING IT, AND HE HAS SIGNED THE AGREEMENT KNOWINGLY AND VOLUNTARILY.

Executed this ____ day of _____, 2022.

_____

Anthony Guzzo

Agreed and Accepted:

Phathom Pharmaceuticals, Inc.

_____

By: Joe Hand
Title: Chief Administrative Officer

Date: _____

Exhibit A

Proprietary Information and Inventions Assignment Agreement

Exhibit B

Release of Claims
EXHIBIT A

GENERAL RELEASE OF CLAIMS

This General Release of Claims ("***Release***") is entered into as of this_____ day of___, 2022, between Anthony Guzzo ("***Executive***"), and Phathom Pharmaceuticals, Inc. (the "***Company***") (collectively referred to herein as the "***Parties***").

WHEREAS, Executive and the Company are parties to that certain Transition and Separation Agreement and Release of Claims dated as of _____, 2022 (the "***Agreement***");

WHEREAS, the Parties agree that Executive is entitled to certain "Separation Benefits" under Section 3 of the Agreement, subject to Executive's execution of this Release; and

WHEREAS, the Company and Executive now wish to fully and finally to resolve all matters between them.

NOW, THEREFORE, in consideration of, and subject to, the Separation Benefits payable to Executive pursuant to Section 3 of the Agreement, the adequacy of which is hereby acknowledged by Executive, and which Executive acknowledges that he would not otherwise be entitled to receive, Executive and the Company hereby agree as follows:

1. Release.

(a) Executive agrees not to sue, or otherwise file any claim against, the Company or its parent companies, subsidiaries or affiliates, and any of their respective successors, assigns, directors, officers, managers, employees, attorneys, insurers, or agents, each in their respective capacities as such (collectively, the "***Company Parties***"), for any reason whatsoever based on anything that has occurred at any time up to and including the execution date of this Release as follows:

(i) On behalf of Executive and his executors, administrators, heirs and assigns, Executive hereby releases and forever discharge the Company Parties, and all persons acting by, through, under or in concert with them, or any of them, of and from any and all manner of action or actions, cause or causes of action, in law or in equity, suits, debts, liens, contracts, agreements, promises, liability, claims, demands, damages, loss, cost or expense, of any nature whatsoever, known or unknown, fixed or contingent (hereinafter called "***Claims***"), which Executive now has or may hereafter have against any of the Company Parties by reason of any matter, cause, or thing whatsoever from the beginning of time through and including the execution date of this Release, including, without limiting the generality of the foregoing: any Claims arising directly or indirectly out of, relating to, or in any other way involving in any manner whatsoever Executive's employment by the Company or its affiliates or the separation thereof, including without limitation any and all Claims arising under federal, state, or local laws relating to employment; any Claims of any kind that may be brought in any court or administrative agency; any Claims arising under the Age Discrimination in Employment Act, the Older Workers Benefits Protection Act, Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1991, the Equal Pay Act, the Civil Rights Act of 1866, Section 1981, 42 U.S.C. § 1981, the Family and Medical Leave Act of 1993, the Americans with Disabilities Act of 1990, the False Claims Act, the Employee Retirement Income Security Act, the Worker Adjustment and Retraining Notification Act, the Fair Labor Standards Act, the Sarbanes-Oxley Act of 2002, the National Labor Relations Act of 1935, the Uniformed Services Employment and Reemployment Rights

Act of 1994, Fair Credit Reporting Act, New Jersey's Conscientious Employee Protection Act, the New Jersey Soldiers' and Sailors' Civil Relief Act, Millville Dallas Airmotive Plant Job Loss Notification Act, New Jersey Family Leave Act, New Jersey Law Against Discrimination, New Jersey Security and Financial Empowerment Act, New Jersey State Wage and Hour Law, New Jersey Paid Sick Leave Law, and New Jersey State Wage Payment Law, or any similar state law, each of the foregoing as may have been amended, and any other federal, state, or local statute, regulation, ordinance, constitution, or order concerning labor or employment, termination of labor or employment, wages and benefits, retaliation, leaves of absence, or any other term or condition of employment; Claims for breach of contract; Claims for unfair business practices; Claims arising in tort, including, without limitation, Claims of wrongful dismissal or discharge, discrimination, harassment, retaliation, fraud, misrepresentation, defamation, libel, infliction of emotional distress, violation of public policy, and/or breach of the implied covenant of good faith and fair dealing; and Claims for damages or other remedies of any sort, including, without limitation, compensatory damages, punitive damages, injunctive relief and attorney's fees.

(ii) Notwithstanding the generality of the foregoing, Executive does not release any Claims that cannot be released as a matter of law including, without limitation, (A) Executive's right to file for unemployment insurance benefits or any state disability insurance benefits pursuant to the terms of applicable state law; (B) Executive's right to file claims for workers' compensation insurance benefits under the terms of any worker's compensation insurance policy or fund of the Company; (C) Executive's right to file a charge of discrimination, harassment, interference with leave rights, failure to accommodate, or retaliation with the Equal Employment Opportunity Commission or any other federal, state or local government agency, or to cooperate with or participate in any investigation conducted by such agency; provided, however, that Executive hereby releases Executive's right to receive damages in any such proceeding brought by Executive or on Executive's behalf; (D) Executive's right to communicate directly with the U.S. Securities and Exchange Commission, the U.S. Commodity Futures Trading Commission, the U.S. Department of Justice or similar agency, or to cooperate with or participate in any investigation by such agency; or (E) Executive's right to make any disclosure that are protected under the whistleblower provisions of applicable law. For the avoidance of doubt, Executive does not need to notify or obtain the prior authorization of the Company to exercise any of the foregoing rights. Furthermore, Executive does not release hereby any rights that Executive may have relating to (x) indemnification by the Company or its affiliates under any indemnification agreement with the Company, the Company's Bylaws or any applicable law or under any applicable insurance policy with respect to Executive's liability as an employee of the Company; (y) Executive's vested accrued benefits under the Company's respective benefits and compensation plans; and (z) any Claims for breach of this Release.

(b) Executive acknowledges that he has had at least twenty-one (21) calendar days in which to consider whether to execute the Release, no one hurried Executive into executing the Release during that period and no one coerced Executive into executing the Release. Executive understands that the Company's obligations under the Release will not become effective or enforceable until the eighth (8th) calendar day after the date Executive signs the Release provided that Executive has timely delivered it to the Company, and that in the seven (7) day period following the date Executive delivers a signed copy of the Release to the Company, Executive understands that Executive may revoke his acceptance of the Release. Executive understands that the Separation Benefits will become available to him at such time after the Effective Date as provided in this Release. Executive further understands that the offer of the Separation Benefits and this Release will expire in the event the Effective Date has not occurred on or before the thirtieth (30^{th}) calendar day after the Separation Date.

(c) Executive represents and warrants that he is the sole owner of all Claims relating to his employment or service with the Company and/or with any predecessor of the Company and that he has not assigned or transferred any Claims relating to his employment or service to any other person or entity.

Executive understands and agrees that the Release will not be construed at any time as an admission of liability or wrongdoing by either the Company or Executive.

2. Continuing Obligations. Executive hereby expressly reaffirms his obligations under the Proprietary Information and Inventions Agreement (the "***PIIA***"), a copy of which is attached to the Agreement as Exhibit A and incorporated herein by reference, and his obligations under Section 5 of the Agreement, and agrees that such obligations shall survive the Separation Date.

3. No Assignment. Executive represents and warrants to the Company Parties that there has been no assignment or other transfer of any interest in any Claim that Executive may have against the Company Parties. Executive agrees to indemnify and hold harmless the Company Parties from any liability, claims, demands, damages, costs, expenses and attorneys' fees incurred as a result of any such assignment or transfer from Executive.

4. Severability. Should any provision of this Release be determined by an arbitrator, court of competent jurisdiction or government agency to be wholly or partially invalid or unenforceable, the legality, validity and enforceability of the remaining parts, terms or provisions are intended to remain in full force and effect. Specifically, should a court, arbitrator or agency conclude that a particular claim may not be released as a matter of law, it is the intention of the parties that the general release and the waiver of unknown claims above will otherwise remain effective to release any and all other claims. Executive acknowledges that he has obtained sufficient information to intelligently exercise his own judgment regarding the terms of this Release before executing this Release.

5. Entire Agreement. This Release, the PIIA, the Stock Option Agreements (as defined in the Agreement) and the PSU Agreements (as defined in the Agreement) constitute the entire agreement and understanding between the parties as to the subject matter herein and supersede all prior or contemporaneous agreements whether written or oral. The invalidity or unenforceability of any provision or provisions of this Release will not affect the validity or enforceability of any other provision hereof, which will remain in full force and effect. The terms in this Release may only be modified in writing and signed by Executive and an authorized officer of the Company.

6. Governing Law. This Release will be governed by and construed in accordance with the laws of the United States of America and the State of New Jersey applicable to contracts made and to be performed wholly within such State, and without regard to the conflicts of laws principles thereof.

7. Construction. The language in all parts of this Release shall in all cases be construed simply, according to its fair meaning, and not strictly for or against any of the Parties hereto. Without limitation, there shall be no presumption against any party on the ground that such party was responsible for drafting this Release or any part thereof. Where the context so requires, the use of the masculine gender shall include the feminine and/or neuter genders and the singular shall include the plural, and vice versa, and the word "person" shall include any corporation, firm, partnership or other form of association.

8. Knowing and Voluntary. Executive represents and agrees that, prior to signing this Release, Executive has had the opportunity to discuss the terms of this Release with legal counsel of his choosing. Executive further represents and agrees that he is entering into this Release knowingly and voluntarily. Executive affirms that no promise was made to cause him to enter into this Release, other than what is promised in this Release. Executive further confirms that he has not relied upon any other statement or representation by anyone other than what is in this Release as a basis for his agreement. Executive acknowledges and agrees that neither the Company nor the Company's counsel has provided any legal or tax advice to Executive and that Executive is free to, and is hereby advised to, consult with a legal or tax advisor of his choosing.

9. Counterparts. This Release may be executed in any number of counterparts, all of which taken together shall constitute one instrument. Execution and delivery of this Release by facsimile or other electronic signature is legal, valid and binding for all purposes.

[Signature Page Follows]

EXECUTIVE'S ACCEPTANCE OF AGREEMENT

BEFORE SIGNING HIS NAME TO THIS RELEASE, EXECUTIVE STATES THE FOLLOWING: EXECUTIVE HAS READ THE RELEASE, HE UNDERSTANDS IT AND HE KNOWS THAT HE IS GIVING UP IMPORTANT RIGHTS. HE HAS OBTAINED SUFFICIENT INFORMATION TO INTELLIGENTLY EXERCISE HIS OWN JUDGMENT. HE HAS BEEN ADVISED THAT HE SHOULD CONSULT WITH AN ATTORNEY BEFORE SIGNING IT, AND HE HAS SIGNED THE RELEASE KNOWINGLY AND VOLUNTARILY.

Executed this 5th day of April, 2022.

/s/ Anthony Guzzo

Anthony Guzzo

Agreed and Accepted:

Phathom Pharmaceuticals, Inc.

/s/ Joe Hand
By: Joe Hand
Title: Chief Administrative Officer

Date: 5th April 2022

Exhibit 31.1

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

I, Terrie Curran, certify that:

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

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

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

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

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

   b) (Paragraph omitted pursuant to SEC Release Nos. 33-8238/34-47986 and 33-8392/34-49313);

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

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

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

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

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

Date: August 2, 2022

/s/ Terrie Curran

Terrie Curran
Chief Executive Officer and President
(Principal Executive Officer)

Exhibit 31.2

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

I, Molly Henderson, certify that:

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

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

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

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

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

   b) (Paragraph omitted pursuant to SEC Release Nos. 33-8238/34-47986 and 33-8392/34-49313);

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

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

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

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

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

Date: August 2, 2022

/s/ Molly Henderson

Molly Henderson
Chief Financial and Business Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO

18 U.S.C. SECTION 1350

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Phathom Pharmaceuticals, Inc. (the "Company") for the quarter ended June 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Terrie Curran, as Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to my knowledge, that:

(1) 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; and

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

Date: August 2, 2022

/s/ Terrie Curran
Terrie Curran
Chief Executive Officer and President
(Principal Executive Officer)

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.

Exhibit 32.2

CERTIFICATION PURSUANT TO

18 U.S.C. SECTION 1350

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Phathom Pharmaceuticals, Inc. (the "Company") for the quarter ended June 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Molly Henderson, as Chief Financial and Business Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to my knowledge, that:

(1) 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; and

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

Date: August 2, 2022

/s/ Molly Henderson
Molly Henderson
Chief Financial and Business Officer
(Principal Financial and Accounting Officer)

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.