UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2023

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: 001-41365

HILLEVAX, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**85-0545060**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
75 State Street, Suite 100 - #9995, Boston, Massachusetts	**02109**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (617) 213-5054

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	HLVX	Nasdaq Global Select Market

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

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

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

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

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

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

As of August 8, 2023, the registrant had 39,216,931 shares of common stock, $0.0001 par value per share, outstanding.

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PART I—FINANCIAL INFORMATION

Item 1. Financial Statements.

HilleVax, Inc.
Condensed Consolidated Balance Sheets
(in thousands, except share and par value data)
(unaudited)

	June 30, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 158,375	$ 279,401
Marketable securities	85,675	—
Prepaid expenses and other current assets (includes related party amounts of $48 and $0, respectively)	8,989	11,212
Total current assets	253,039	290,613
Property and equipment, net	13,143	5,586
Operating lease right-of-use assets	18,686	19,359
Restricted cash	1,631	1,631
Other assets	23	22
Total assets	$ 286,522	$ 317,211
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable (includes related party amounts of $0 and $141, respectively)	$ 151	$ 4,744
Accrued expenses (includes related party amounts of $12 and $140, respectively)	17,648	8,210
Accrued interest	102	55
Current portion of operating lease liability	437	37
Total current liabilities	18,338	13,046
Operating lease liability, net of current portion	23,664	21,569
Long-term debt, net of debt discount	24,835	14,792
Other long-term liabilities	922	575
Total liabilities	67,759	49,982
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Preferred stock, $0.0001 par value; authorized shares— 50,000,000 at June 30, 2023 and December 31, 2022; no shares issued and outstanding at June 30, 2023 and December 31, 2022	—	—
Common stock, $0.0001 par value; authorized shares— 500,000,000 at June 30, 2023 and December 31, 2022; issued shares—39,216,931 and 39,240,746 at June 30, 2023 and December 31, 2022, respectively; outstanding shares—38,049,186 and 37,656,037 at June 30, 2023 and December 31, 2022, respectively	4	4
Additional paid-in capital	538,865	532,499
Accumulated other comprehensive loss	(322)	(281)
Accumulated deficit	(319,784)	(264,993)
Total stockholders' equity	218,763	267,229
Total liabilities and stockholders' equity	$ 286,522	$ 317,211

See accompanying notes.

HilleVax, Inc.
Condensed Consolidated Statements of Operations and Comprehensive Loss
(in thousands, except share and per share data)
(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Operating expenses:				
Research and development (includes related party amounts of $29, $172, $197, and $1,594, respectively)	$ 22,953	$ 8,826	$ 46,117	$ 15,037
In-process research and development - related party	—	—	—	2,500
General and administrative (includes related party amounts of $3, $8, $6, and $34, respectively)	7,231	3,982	13,026	6,585
Total operating expenses	30,184	12,808	59,143	24,122
Loss from operations	(30,184)	(12,808)	(59,143)	(24,122)
Other income (expense):				
Interest income	2,453	334	5,027	340
Interest expense (includes related party amounts of $0, $188, $0, and $717, respectively)	(500)	(888)	(949)	(2,952)
Change in fair value of convertible promissory notes (includes related party amounts of $0, $8,818, $0 and $13,196, respectively)	—	(34,396)	—	(51,469)
Change in fair value of warrant liabilities - related party	—	(6,151)	—	(43,575)
Other income (expense)	329	(20)	274	(38)
Total other income (expense)	2,282	(41,121)	4,352	(97,694)
Net loss	$ (27,902)	$ (53,929)	$ (54,791)	$ (121,816)
Other comprehensive loss:				
Unrealized loss on marketable securities	(37)	—	(37)	—
Pension and other postemployment benefits	(3)	—	(4)	—
Total comprehensive loss	$ (27,942)	$ (53,929)	$ (54,832)	$ (121,816)
Net loss per share, basic and diluted	$ (0.74)	$ (2.03)	$ (1.45)	$ (7.30)
Weighted-average shares of common stock outstanding, basic and diluted	37,951,735	26,512,881	37,853,176	16,685,372

See accompanying notes.

HilleVax, Inc.
Condensed Consolidated Statements of Stockholders' Equity (Deficit)
(in thousands, except share data)
(unaudited)

	Common Stock					
	Shares	Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity (Deficit)
Balance at March 31, 2023	37,841,987	$ 4	$ 535,221	$ (282)	$ (291,882)	$ 243,061
Vesting of restricted shares	170,304	—	—	—	—	—
Stock—based compensation	—	—	3,246	—	—	3,246
Exercise of common stock options	10,000	—	80	—	—	80
Issuance of common stock under stock purchase plan	26,895	—	318	—	—	318
Unrealized loss on marketable securities	—	—	—	(37)	—	(37)
Pension and other postemployment benefits	—	—	—	(3)	—	(3)
Net loss	—	—	—	—	(27,902)	(27,902)
Balance at June 30, 2023	38,049,186	$ 4	$ 538,865	$ (322)	$ (319,784)	$ 218,763
Balance at March 31, 2022	6,897,450	$ 1	$ 4,698	$ —	$ (173,071)	$ (168,372)
Issuance of common stock in connection with initial public offering, net of issuance costs of $20,491	13,529,750	1	209,514	—	—	209,515
Conversion of August 2021 Notes and accrued interest into common shares	10,672,138	1	215,363	—	—	215,364
Conversion of Takeda Warrant liability into equity	—	—	100,020	—	—	100,020
Vesting of restricted shares	212,049	—	—	—	—	—
Stock—based compensation	—	—	556	—	—	556
Net loss	—	—	—	—	(53,929)	(53,929)
Balance at June 30, 2022	31,311,387	$ 3	$ 530,151	$ —	$ (227,000)	$ 303,154

See accompanying notes.

HilleVax, Inc.
Condensed Consolidated Statements of Stockholders' Equity (Deficit) - (Continued)
(in thousands, except share data)
(unaudited)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount				
Balance at December 31, 2022	37,656,037	$ 4	$ 532,499	$ (281)	$ (264,993)	$ 267,229
Vesting of restricted shares	344,872	—	—	—	—	—
Stock—based compensation	—	—	5,888	—	—	5,888
Issuance of common stock under stock purchase plan	26,895	—	318	—	—	318
Exercise of common stock options	21,382	—	160	—	—	160
Unrealized loss on marketable securities	—	—	—	(37)	—	(37)
Pension and other postemployment benefits	—	—	—	(4)	—	(4)
Net loss	—	—	—	—	(54,791)	(54,791)
Balance at June 30, 2023	38,049,186	$ 4	$ 538,865	$ (322)	$ (319,784)	$ 218,763
Balance at December 31, 2021	6,599,886	$ 1	$ 4,426	$ —	$ (105,184)	$ (100,757)
Issuance of common stock in connection with initial public offering, net of issuance costs of $20,491	13,529,750	1	209,514	—	—	209,515
Conversion of August 2021 Notes and accrued interest into common shares	10,672,138	1	215,363	—	—	215,364
Conversion of Takeda Warrant liability into equity	—	—	100,020	—	—	100,020
Vesting of restricted shares	509,613	—	—	—	—	—
Stock—based compensation	—	—	828	—	—	828
Net loss	—	—	—	—	(121,816)	(121,816)
Balance at June 30, 2022	31,311,387	$ 3	$ 530,151	$ —	$ (227,000)	$ 303,154

See accompanying notes.

HilleVax, Inc.
Condensed Consolidated Statements of Cash Flows
(in thousands)
(unaudited)

	Six Months Ended June 30,	
	2023	2022
Cash flows from operating activities		
Net loss	$ (54,791)	$ (121,816)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	106	—
Stock-based compensation	5,888	828
Change in fair value of convertible promissory notes (includes related party amounts of $0 and $13,196, respectively)	—	51,469
Change in fair value of warrant liabilities - related party	—	43,575
Amortization of operating lease right-of-use assets	673	431
Amortization of debt discount	255	81
Issuance of PIK interest debt	205	21
Acquired in-process research and development - related party	—	2,500
Net amortization of premiums and discounts on marketable securities	(603)	—
Loss on disposal of property and equipment	—	42
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets (includes related party amounts of $48 and $(692), respectively)	2,223	(4,750)
Accounts payable, accrued expenses and other long-term liabilities (includes related party amounts of $(269) and $(2,531), respectively)	5,131	550
Accrued interest (includes related party amounts of $0 and $717, respectively)	47	2,821
Operating lease right-of-use assets and liabilities	2,495	323
Net cash used in operating activities	(38,371)	(23,925)
Cash flows from investing activities		
Cash paid for purchased in-process research and development	—	(2,500)
Purchases of property and equipment	(7,824)	—
Purchases of marketable securities	(85,109)	—
Net cash used in investing activities	(92,933)	(2,500)
Cash flows from financing activities		
Proceeds from issuances of stock under ESPP	318	—
Proceeds from issuance of common stock in initial public offering	—	230,006
Payment of initial public offering costs	—	(16,569)
Proceeds from issuance of long-term debt, net of issuance costs	9,800	4,665
Proceeds from exercise of stock options	160	—
Net cash provided by financing activities	10,278	218,102
Net increase (decrease) in cash, cash equivalents and restricted cash	(121,026)	191,677
Cash, cash equivalents and restricted cash—beginning of period	281,032	124,566
Cash, cash equivalents and restricted cash—end of period	$ 160,006	$ 316,243
Supplemental disclosure of cash flow information		
Cash paid for interest	$ 461	$ 30
Supplemental disclosure of noncash investing and financing activities		
Operating lease	$ —	$ 20,317
Unpaid initial public offering costs	$ —	$ 1,724
Unpaid property and equipment purchases	$ 1,412	$ —
Conversion of convertible promissory notes and interest into common stock	$ —	$ 215,364
Conversion of warrant liability into equity	$ —	$ 100,020
Accreted final interest payment fees	$ 217	$ 70

See accompanying notes.

1. Organization

Organization

HilleVax, Inc. (the “Company” or “HilleVax”) was incorporated in the state of Delaware in March 2020 under the name MokshaCo, Inc. (“MokshaCo”). On February 8, 2021, MokshaCo changed its name to HilleVax and merged with North Bridge V, Inc. (“North Bridge V”) and YamadaCo III, Inc. (“YamadaCo III”), each a Delaware corporation formed in 2019, with HilleVax being the surviving entity (the “Merger”). The Company is a biopharmaceutical company focused on developing and commercializing novel vaccines.

Forward Stock Split

On April 22, 2022, the Company effected a 1.681-for-1 forward split of shares of the Company’s common stock (the “Forward Stock Split”). The par value of the common stock was not adjusted as a result of the Forward Stock Split and the authorized shares were increased to 50,000,000 shares of common stock in connection with the Forward Stock Split. The accompanying financial statements and notes to the financial statements give retroactive effect to the Forward Stock Split for all periods presented, unless otherwise indicated.

Initial Public Offering

On May 3, 2022, the Company completed its initial public offering ("IPO") whereby it sold 13,529,750 shares of common stock at a public offering price of $17.00 per share, for net proceeds of approximately $209.5 million, after deducting underwriting discounts, commissions and offering costs of approximately $20.5 million (see Note 10).

Liquidity and Capital Resources

From inception to June 30, 2023, the Company has devoted substantially all of its efforts to organizing and staffing the Company, business planning, raising capital, in-licensing its initial vaccine candidate, HIL-214, preparing for and managing its clinical trials of HIL-214, 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 net losses into the foreseeable future as it continues the development and potential commercialization of HIL-214. From inception to June 30, 2023, the Company has funded its operations through the issuance of convertible promissory notes, commercial bank debt and the sale of common stock in its IPO which closed in May 2022.

The accompanying condensed consolidated financial statements have been prepared assuming the Company will continue as a going concern. 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.

2. Summary of Significant Accounting Policies

Basis of Presentation

The Company's financial statements include the accounts of HilleVax Security Corporation, a wholly-owned subsidiary formed in Massachusetts, and HilleVax GmbH, a wholly-owned subsidiary formed in Zurich, Switzerland. The functional currency of the Company, HilleVax Security Corporation and HilleVax GmbH is the U.S. dollar. The Company’s assets and liabilities that are not denominated in the functional currency are remeasured into U.S. dollars at foreign currency

exchange rates in effect at the balance sheet date except for nonmonetary assets, which are remeasured at historical foreign currency exchange rates in effect at the date of transaction. Net realized and unrealized gains and losses from foreign currency transactions and remeasurement are reported in other income (expense), in the condensed consolidated statements of operations and were not material for the periods presented. All intercompany transactions have been eliminated in consolidation.

Unaudited Interim Financial Information

The unaudited condensed consolidated financial statements as of June 30, 2023, and for the three and six months ended June 30, 2023 and 2022, have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission ("SEC"), and with U.S. generally accepted accounting principles ("GAAP") applicable to interim financial statements. These unaudited condensed consolidated financial statements have been prepared on the same basis as the Company's audited financial statements and include all adjustments, consisting of only normal recurring accruals, which in the opinion of management are necessary to present fairly the Company's financial position as of the interim date and results of operations for the interim periods presented. Interim results are not necessarily indicative of results for a full year or future periods. The condensed consolidated balance sheet data as of December 31, 2022 was derived from the Company's audited financial statements but does not include all disclosures required by GAAP. These unaudited condensed financial statements should be read in conjunction with the Company's audited financial statements for the year ended December 31, 2022, included in the Company's Annual Report on Form 10-K for the year ended December 31, 2022 filed with the SEC on March 17, 2023.

Use of Estimates

The preparation of the Company's unaudited condensed consolidated 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 condensed consolidated financial statements and accompanying notes. The most significant estimates in the Company's unaudited condensed consolidated financial statements relate to accruals for research and development expenses, and prior to the Company's IPO, the valuation of convertible promissory notes, warrant liabilities and various other 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 Option

As permitted under Accounting Standards Codification ("ASC") 825, *Financial Instruments*, ("ASC 825"), the Company has elected the fair value option to account for its convertible promissory notes issued through May 2022, when the convertible promissory notes converted into equity in connection with the Company's IPO. In accordance with ASC 825, the Company recorded these convertible promissory notes at fair value with changes in fair value recorded in the condensed consolidated statements of operations. As a result of applying the fair value option, direct costs and fees related to the convertible promissory notes were recognized in earnings as incurred and not deferred.

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.

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.

Restricted Cash

Restricted cash consists of a money market account securing a standby letter of credit issued in connection with the Company's Boston Lease (as defined and described in Note 6).

Marketable Securities

Marketable securities represent holdings of available-for-sale marketable debt securities in accordance with the Company's investment policy. The Company has classified its investments with maturities beyond one year as current, based on their highly liquid nature and because such marketable securities represent the investment of cash that is available for current operations.

Investments in marketable securities are recorded at fair value, with any unrealized gains and losses reported within accumulated other comprehensive income (loss) as a separate component of stockholders' equity (deficit) until realized or until a determination is made that an other-than-temporary decline in market value has occurred. The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization and accretion, together with interest on securities sold, is determined based on the specific identification method and any realized gains or losses on the sale of investments are reflected as a component of other income (expense).

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash, cash equivalents, marketable securities, and restricted cash. 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 and Equipment, Net

Property and equipment are stated at cost and depreciated on a straight-line basis over the estimated useful life of the related assets as follows:

	Estimated Useful Life
Computer equipment	3 years
Lab equipment	5 years
Furniture and fixtures	5 years
Leasehold improvements	3 – 10 years or term of lease

Repairs and maintenance costs are charged to expense as incurred.

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. Lease terms are determined at the commencement date by considering whether renewal options and termination options are reasonably assured of exercise. For its long-term operating leases, the Company recognizes a lease liability and a right-of-use ("ROU") asset on its balance sheet and recognizes lease expense on a straight-line basis over the lease term. The lease liability is determined as the present value of future lease payments, reduced by any reimbursements for tenant improvements, using the discount rate implicit in the lease or, if the implicit rate is not readily determinable, an estimate of the Company's incremental borrowing rate. The ROU asset is based on the lease liability, adjusted for any prepaid or deferred rent, and reduced by any reimbursements for tenant improvements. The Company aggregates all lease and non-lease components for each class of underlying assets into a single lease component and variable charges for common area maintenance and other variable costs are recognized as expense as incurred. The Company has elected to not recognize a lease liability or ROU asset in connection with short-term operating leases and recognizes lease expense for short-term operating leases on a straight-line basis over the lease term. The Company does not have any financing leases.

Impairment of Long-Lived Assets

The Company reviews long-lived assets, such as property and equipment, for impairment whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the assets exceeds the fair value of the assets. Fair value would be assessed using discounted cash flows or other appropriate measures of fair value. The Company has not recognized any impairment losses through June 30, 2023.

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 clinical trials of HIL-214.

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 performance are reflected in the accompanying balance sheets as prepaid expenses. 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.

Patent Costs

Costs related to filing and pursuing patent applications are recorded as general and administrative expenses and expensed as incurred since recoverability of such expenditures is uncertain.

Stock-Based Compensation

Stock-based compensation expense represents the cost of the grant date fair value of equity awards, primarily consisting of stock options, restricted common stock, and employee stock purchase rights, recognized on a straight-line basis over the requisite service period for stock options and restricted common stock, and over the respective offering period for employee stock purchase plan rights. The Company recognizes forfeitures as they occur.

Benefit plans

The Company has established a defined contribution savings plan for its employees in the United States under Section 401(k) of the Internal Revenue Code, and a defined benefits plan for its employees outside of the United States.

The defined benefits plan is valued by an independent actuary using the projected unit credit method. The liabilities correspond to the projected benefit obligations of which the discounted net present value is calculated based on years of employment, expected salary increase, and pension adjustments. The Company reviews its actuarial assumptions on an annual basis and makes modifications to the assumptions based on current rates and trends. This plan is recognized under ASC 715, *Compensation - Retirement Benefits*.

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 condensed consolidated statements 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 in the condensed consolidated statements of operations. Any accrued interest and penalties are included within the related tax liability in the condensed consolidated balance sheets. The Company did not recognize any interest or penalties during the periods presented.

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. For the three and six months ended June 30, 2023, comprehensive loss included losses on the Company's pension benefit obligation and unrealized losses on marketable securities. For the three and six months ended June 30, 2022, the Company's comprehensive loss was the same as its reported net loss.

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 consolidated net loss by the weighted-average number of common shares outstanding for the period, without consideration for potentially dilutive securities. The Company included 5,883,500 shares of common stock under the Takeda Warrant (as defined below) in the calculation of basic weighted-average common shares outstanding from the time the Takeda Warrant became exercisable upon the Company's IPO because the Takeda Warrant was exercisable for minimal consideration. The Company has excluded weighted-average unvested shares of 1,317,580 shares, 2,218,351 shares, 1,404,701 shares, and 2,346,789 shares from the basic weighted-average number of common shares outstanding for the three months ended June 30, 2023 and 2022 and the six months ended June 30, 2023 and 2022, respectively. Diluted net loss per share is computed by dividing the consolidated 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. Potentially dilutive common stock equivalents are comprised of unvested common stock, common stock options, contingently issuable shares under the Company's employee stock purchase plan, and common stock warrants. For all 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 common stock equivalents would be antidilutive.

Potentially dilutive securities not included in the calculation of diluted net loss per share, because to do so would be anti-dilutive, are as follows (in common stock equivalent shares):

	June 30,	
	2023	2022
Common stock options	3,699,332	1,515,447
Unvested common stock	1,921,342	2,115,822
ESPP shares	6,246	5,175
Total potentially dilutive shares	5,626,920	3,636,444

Emerging Growth Company Status

The Company is an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012 ("JOBS Act"). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued

subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. The Company has irrevocably elected to avail itself of this exemption from new or revised accounting standards and, therefore, will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Recently Adopted Accounting Standards

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-13, Financial Instruments – Credit Losses (Topic 326), to provide financial statement users with more decision-useful information about the expected credit losses on financial instruments and other commitments to extend credit held by a reporting entity at each reporting date. To achieve this objective, the amendments in Topic 326 replace the incurred loss impairment methodology in current U.S. GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. We adopted Topic 326 on January 1, 2023. The adoption did not have a material impact on our unaudited condensed consolidated 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 condensed consolidated financial statements as well as material updates to previous assessments, if any. Although there were several other new accounting pronouncements issued or proposed by the FASB, the Company does not believe any of those accounting pronouncements have had or will have a material impact on its financial position or operating results.

3. Fair Value Measurements

The Company's cash, cash equivalents, marketable securities, and restricted cash are carried at fair value, determined according to the fair value hierarchy discussed in Note 2. The carrying values of the Company's prepaid expenses and other current assets, accounts payable, and accrued liabilities, approximate fair value due to their short maturities. The estimated fair value of the Company's long-term debt approximated the carrying amount given its floating interest rate basis. Warrant liabilities and convertible promissory notes were recorded at fair value on a recurring basis until they converted to equity in connection with the Company's IPO, which closed in May 2022.

The following tables present the Company's fair value hierarchy for its assets that are measured at fair value on a recurring basis and indicate the level within the fair value hierarchy of the valuation techniques the Company utilized to determine such fair value (in thousands):

		Fair Value Measurements at June 30, 2023 Using:		
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents				
Money market funds	$ 151,387	$ 151,387	$ —	$ —
Marketable securities:				
U.S. treasury notes	4,823	—	4,823	—
U.S government agency bonds	80,852	—	80,852	—
Total	$ 237,062	$ 151,387	$ 85,675	$ —

	Total	Fair Value Measurements at December 31, 2022 Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents				
Money market funds	$ 277,043	$ 277,043	$ —	$ —
Total	$ 277,043	$ 277,043	$ —	$ —

U.S. government money market funds were valued by the Company based on quoted market prices, which represent a Level 1 measurement within the fair value hierarchy.

As of June 30, 2023, the Company's marketable securities consisted of U.S. Treasury notes and agency bonds, which were valued based on Level 2 inputs. In determining the fair value of its U.S. Treasury notes and agency bonds, the Company relied on quoted prices for similar securities in active markets or other inputs that are observable or can be corroborated by observable market data.

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.

4. Marketable Securities

As of June 30, 2023, the fair value of available-for-sale marketable debt securities by type of security was as follows (in thousands):

	June 30, 2023			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Marketable securities:				
U.S. treasury notes	$ 80,879	$ 18	$ (45)	$ 80,852
U.S. government agency bonds	4,833	—	(10)	4,823
Total	$ 85,712	$ 18	$ (55)	$ 85,675

At June 30, 2023, all available-for-sale marketable securities had contractual maturities of less than one year. The Company did not hold any marketable debt securities as of December 31, 2022.

As of June 30, 2023, the Company reviewed its investment portfolio to assess the unrealized losses on its available-for-sale investments. In making this assessment, the Company considered the extent to which fair value is less than amortized cost, any changes to the rating of the security by a rating agency, and adverse conditions specifically related to the security, among other factors. The Company also evaluated whether it intended to sell the security and whether it was more likely than not that the Company would be required to sell the security before recovering its amortized cost basis. The Company determined no portion of the unrealized losses relate to a credit loss. There have been no impairments of the Company's assets measured and carried at fair value during the three and six months ended June 30, 2023.

5. Other Balance Sheet Details

Property and Equipment

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

	June 30, 2023	December 31, 2022
Computer equipment	$ 79	$ -
Furniture and equipment	363	11
Leasehold improvements	11,029	378
Construction in progress	1,778	5,198
Total property and equipment, at cost	13,249	5,587
Less accumulated depreciation	106	1
Property and equipment, net	$ 13,143	$ 5,586

Depreciation expense for the three and six months ended June 30, 2023 was $0.1 million. Depreciation expense for the three and six months ended June 30, 2022 was not material.

Accrued Expenses

Accrued expenses consisted of the following (in thousands):

	June 30, 2023	December 31, 2022
Accrued external research and development costs	$ 12,818	$ 3,510
Accrued payroll and payroll-related costs	2,667	4,018
Accrued professional costs	1,106	307
Other	1,057	375
Total accrued expenses	$ 17,648	$ 8,210

Cash, Cash Equivalents and Restricted Cash

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

	June 30, 2023	December 31, 2022
Cash and cash equivalents	$ 158,375	$ 279,401
Restricted cash	1,631	1,631
Total cash, cash equivalents and restricted cash	$ 160,006	$ 281,032

6. Leases

Operating Leases

In August 2021, the Company entered into a five-year noncancelable operating lease for a facility in Switzerland, which it determined was an operating lease at the inception of the lease contract. The lease commencement date occurred in September 2021 when the Company gained access to the facility. The Company is obligated to make monthly rental payments that periodically escalate during the lease term and is subject to additional charges for common area maintenance and other costs. The Company has an option to extend the lease for a period of five years which the Company is not reasonably certain to exercise.

In March 2022, the Company entered into a lease for office and laboratory space located in Boston, Massachusetts (the “Boston Lease”), which it determined was an operating lease at the inception of the lease contract. The Boston Lease commenced in April 2022 with base rental payments beginning in January 2023. The Boston Lease includes certain tenant improvement allowances for the reimbursement of up to $6.3 million of costs incurred by the Company, and an option for the Company to extend the lease for a period of five years, which the Company is not reasonably certain to

exercise. The Company determined that it owns the leasehold improvements related to the Boston Lease and, as such, reflected the $6.3 million lease incentive as a reduction of the rental payments used to measure the operating lease liability, and, in turn, the operating lease right-of-use asset as of the lease commencement date in April 2022. Between the lease commencement date and June 30, 2023, the Company recorded increases of $3.4 million to the operating lease liability as and when such leasehold improvements were paid for by the landlord. The Company expects to receive all tenant improvement reimbursements during the year ending December 31, 2023. Under the terms of the Boston Lease, the Company provided the lessor with an irrevocable standby letter of credit secured by restricted cash in the amount of $1.6 million.

The following table summarizes operating lease expense for the three and six months ended June 30, 2023 and 2022 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Lease expense:				
Operating lease expense	$ 779	$ 800	$ 1,559	$ 800

The Company incurred an immaterial amount of expense related to short-term leases and variable lease costs during the three and six months ended June 30, 2023 and the three and six months ended June 30, 2022.

The following table summarizes the lease term and discount rate for operating leases:

	June 30, 2023	December 31, 2022
Other information:		
Weighted-average remaining lease term	9.50	9.96
Weighted-average discount rate	7.4%	7.4%

As there was not an implicit rate within the leases, management estimated the incremental borrowing rate based on the rate of interest the Company would have to pay to borrow a similar amount on a collateralized basis over a similar term as well as by using a set of peer companies' incremental borrowing rates.

The following table summarizes the cash paid for amounts included in the measurement of lease liabilities (in thousands):

	June 30, 2023
Cash paid for amounts included in the measurement of operating lease liabilities (operating cash flows)	$ 1,742

At June 30, 2023, the future minimum noncancelable operating lease payments were as follows (in thousands):

	June 30, 2023
Years ending December 31:	
2023	$ 1,743
2024	3,584
2025	3,688
2026	3,784
2027	3,860
Thereafter	21,075
Total undiscounted operating lease payments	37,734
Present value adjustment	(10,647)
Tenant improvement reimbursements	(2,986)
Operating lease liability	24,101
Less current portion of operating lease liability	437
Operating lease liability, net of current portion	$ 23,664

7. Related Party Transactions

Frazier Life Sciences X, L.P. or its affiliates ("Frazier") is a principal stockholder of the Company and is represented on the Company's board of directors. From January 8, 2019 (inception) to June 30, 2023, the Company and Frazier reimbursed each other for various goods and services, including personnel related expenses, travel, insurance, facilities and other various overhead and administrative expenses. As of June 30, 2023 and December 31, 2022, the Company had outstanding amounts due to Frazier of $12,000 and $6,000, respectively, related to these shared operating expenses. For the three months ended June 30, 2023 and 2022 and the six months ended June 30, 2023 and 2022, the Company incurred $3,000, $8,000, $6,000, and $34,000, respectively, of shared operating expenses.

As described in Note 9, the Company borrowed amounts from Frazier in connection with various convertible note financings. For the three and six months ended June 30, 2022, the Company recognized a $8.8 million and $13.2 million, respectively, change in fair value of convertible promissory notes in connection with convertible promissory notes issued to Frazier. For the three and six months ended June 30, 2022, the Company recognized $0.2 million and $0.7 million, respectively, of interest expense in connection with convertible promissory notes issued to Frazier. The convertible promissory notes automatically converted into 10,672,138 shares of the Company's common stock immediately prior to the completion of the IPO.

In connection with the Takeda License (as defined and described in Note 8), Takeda became a related party stockholder with representation on the Company's board of directors. The Company and Takeda are party to a TSA (as defined and described in Note 8) under which the Company is obligated to pay Takeda for certain services, including pass-through costs, related to research and development and regulatory assistance services, oversight and management of ongoing clinical and research studies, and maintenance of third-party vendor contracts. For the three months ended June 30, 2023 and 2022 and the six months ended June 30, 2023 and 2022, the Company incurred $29,000, $0.2 million, $0.2 million, and $1.6 million, respectively, of research and development expenses for Takeda's services. As of June 30, 2023, the Company had a prepaid balance of $48,000 with Takeda. As of December 31, 2022, the Company had $0.3 million of accounts payable and accrued expenses due to Takeda. See Note 8 for further information regarding the Company's related party transactions with Takeda.

8. Commitments and Contingencies

License Agreement

On July 2, 2021, the Company entered into a license agreement with Takeda pursuant to which it was granted an exclusive sublicensable, royalty-bearing license (the "Takeda License") to develop and commercialize HIL-214 pharmaceutical products for all human uses on a worldwide basis outside of Japan (the "Territory").

The Company will be responsible, at its own cost, for the development, manufacture and commercialization of HIL-214 products in the Territory, and the Company will integrate certain Japan development activities into its development activities at its own cost. The Company is obligated to use commercially reasonable efforts to develop and commercialize HIL-214 products in the Territory, and to seek regulatory approval for such products throughout the world.

In consideration of the Takeda License, the Company (i) paid Takeda $2.5 million in cash, (ii) issued Takeda 840,500 shares of its common stock at a fair value of $4.4 million, (iii) issued Takeda a warrant (the “Takeda Warrant”) to purchase 5,883,500 shares of its common stock at an exercise price of $0.0000595 per share, which was fully exercised in November 2022, and (iv) issued Takeda a warrant right (the “Takeda Warrant Right”) to receive an additional common stock warrant should Takeda’s fully-diluted ownership of the Company, including the Takeda Warrant, represent less than a certain specified percentage of the fully-diluted capitalization, including shares issuable upon conversion of outstanding convertible promissory notes, calculated immediately prior to the earlier of the closing of the Company’s IPO or a change of control transaction, at an initial fair value of $34,000. In addition, the Company is obligated to pay Takeda an aggregate of $2.5 million upon the release of certain drug product and the completion of certain regulatory activities, which payment was made in March 2022, $7.5 million upon the achievement of a specified development milestone, up to an aggregate of $150.0 million in sales milestones upon the achievement of specified annual sales levels of HIL-214 products in the Territory, and tiered high single-digit to low-teen percentage royalties on net sales of HIL-214 products in the Territory, subject to specified offsets and reductions. Takeda has agreed to pay the Company tiered mid-single digit to low-double digit percentage royalties on net sales of HIL-214 products in Japan, 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 20 years following first commercial sale of such product in such country. The obligations related to contingent payments are recognized in the accompanying condensed consolidated financial statements when the contingency is resolved and the consideration is paid or becomes payable. As of June 30, 2023, none of the remaining contingent payments were due or payable.

Absent early termination, the Takeda License expires on a country-by-country and product-by-product basis upon the expiration of the applicable royalty term with respect to each product in each country, as applicable, or in its entirety upon the expiration of the royalty term with respect to the last product commercialized in the last country. The Company may terminate the Takeda License upon six months’ prior written notice. The Company and Takeda may terminate the Takeda License in the case of the other party’s insolvency, or upon prior written notice within a specified time period for the other party’s material uncured breach. Takeda may terminate the Takeda License if the Company challenges licensed patents, or assists any third-party in challenging such patents.

The acquisition of the Takeda License has been accounted for as an asset acquisition as substantially all of the fair value is concentrated in a group of similar assets. In March 2022, the Company paid Takeda an aggregate $2.5 million contingent payment upon the release of certain drug products and the completion of certain regulatory activities, which have no alternative future use, and was recorded as in-process research and development in the Company’s condensed consolidated statement of operations for the six months ended June 30, 2022. The Company did not make any milestone payments to Takeda during the three and six months ended June 30, 2023.

Transitional Services Agreement with Takeda

As contemplated by the Takeda License, on December 17, 2021, the Company entered into a Transitional Services Agreement ("TSA") with Takeda under which the Company will be obligated to pay Takeda for certain services, including pass-through costs, related to research and development and regulatory assistance services, oversight and management of ongoing clinical and research studies, and maintenance of third party vendor contracts. The TSA and related activities are considered related party transactions. Unless earlier terminated under its terms, the TSA will remain in effect until all transitional services are completed. The Company may terminate the provision of any or all services under the TSA upon certain written notice. The Company and Takeda may terminate the TSA in the case of the other party's insolvency, or upon prior written notice within a specified time period for the other party's material uncured breach. Takeda may terminate the TSA for non-payment and, in certain circumstances, upon a change of control of the Company.

401(k) Plan

The Company established a defined-contribution plan under Section 401(k) of the Internal Revenue Code (the 401(k) Plan). The 401(k) Plan covers all eligible employees who meet defined minimum age and service requirements and allows participants to defer a portion of their annual compensation on a pre-tax basis. Beginning November 2022, the Company made matching contributions equal to 100% of the employee's contributions, subject to a maximum of 4% of eligible compensation. The Company made matching contributions of $0.1 million and $0.4 million, respectively, during the three and six months ended June 30, 2023. The Company did not make any matching contributions during the three and six months ended June 30, 2022.

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.

9. Convertible Promissory Notes and Long-Term Debt

Frazier Convertible Note Financings

During 2019, 2020 and 2021, the Company issued the Frazier Notes for an aggregate of $8.5 million bearing interest at per annum rates ranging from 0.12% to 2.52%. An aggregate of $0.9 million of the Frazier Notes were issued in April, May and September of 2019 (the "2019 Frazier Notes"), an aggregate of $1.3 million of the Frazier Notes were issued in March, August and October of 2020 (the "2020 Frazier Notes") and an aggregate of $6.3 million of Frazier Notes were issued from April to July 2021 (the "2021 Frazier Notes"). The Frazier Notes were generally scheduled to mature 12 to 18 months from the date of issuance. The Company recorded changes in the fair value of the Frazier Notes in the condensed consolidated statements of operations. The Frazier Notes were exchanged for convertible promissory notes newly issued in connection with the August 2021 convertible note financing described below.

August 2021 Convertible Note Financing

On August 31, 2021, the Company entered into a note purchase agreement under which it issued the August 2021 Notes for an aggregate of $139.52 million. Of the August 2021 Notes, $103.75 million were issued to new investors, $25.0 million were issued to Frazier for cash and $10.77 million were issued to Frazier in exchange for the then outstanding principal and accrued interest on the Frazier Notes. The August 2021 Notes carried interest at a rate of 6% per annum, compounded annually. The principal and accrued interest on the August 2021 Notes automatically converted into 10,672,138 shares of the Company's common stock immediately prior to the completion of the IPO. Of these shares, 2,736,234 were issued to Frazier.

For the three and six months ended June 30, 2022, the Company recognized a $34.4 million and $51.5 million, respectively, change in fair value of convertible promissory notes and recognized $0.7 million and $2.8 million, respectively, of interest expense in connection with convertible promissory notes.

Long-Term Debt

The Company's Term Loan consists of the following (in thousands):

	June 30, 2023
Long-term debt	$ 25,000
Accumulated PIK interest	293
Total principal (including PIK interest)	25,293
Unamortized debt discount	(458)
Long-term debt, net of debt discount	$ 24,835

On April 18, 2022, the Company entered into a Loan and Security Agreement (the "Existing Loan Agreement" and, as amended by the First Amendment (as defined below) the "Loan Agreement") with Hercules Capital, Inc., as administrative and collateral agent (in such capacity, "Hercules"), and the lenders from time to time party thereto (the "Lenders"), providing for term loans ("Term Loans") of up to $75.0 million. Prior to June 16, 2023, the Company had borrowed $15.0 million in term loans under the Existing Loan Agreement and had the right thereunder to borrow (i) an additional $15.0 million of term loans until June 30, 2023 ("Term Loan Tranche 1"), (ii) an additional $20.0 million of term loans until June 30, 2023 ("Term Loan Tranche 2"), and (iii) subject to the achievement of certain clinical development milestones by the Company, an additional $25.0 million until March 31, 2024 ("Term Loan Tranche 3").

On June 16, 2023, the Company entered into a First Amendment to Loan and Security Agreement (the "First Amendment") with Hercules and the Lenders party thereto, which amended the Existing Loan Agreement. In connection with the First Amendment, the Company borrowed $10.0 million under Term Loan Tranche 1. Additionally, the First Amendment, among other things, amended the following: (i) with respect to the remaining $5.0 million under Term Loan Tranche 1, modified the period during which the Company may borrow thereunder to start on December 1, 2023 and end May 31, 2024 (or such earlier date if Lenders elect in their sole discretion), (ii) with respect to Term Loan Tranche 2, modified the period during which the Company may borrow thereunder to start on December 1, 2023 and end May 31, 2024 (or such earlier date if Lenders elect in their sole discretion) and (iii) with respect to Term Loan Tranche 3, (a) added as a new condition to borrow thereunder that (x) the Company's Phase 2b clinical trial evaluating the safety, immunogenicity and efficacy of HIL-214 in infants ("NEST-IN1") has achieved the protocol-specified primary efficacy endpoint and (y) HIL-214 has demonstrated acceptable safety results in the NEST-IN1 clinical trial, and, as a result, the Company supports the initiation of a Phase 3 registrational trial as the next immediate step in the development of HIL-214 (the "Tranche 3 Milestone") and (b) modified the period during which the Company may borrow thereunder to start on the date the Company achieves the Tranche 3 Milestone and end on the earlier of (x) June 15, 2024 and (y) 30 days following the date the Company achieves the Tranche 3 Milestone. All Term Loans are subject to a minimum draw amount of $5.0 million and no event of default under the Loan Agreement having occurred and continuing. The borrowings under the Loan Agreement are collateralized by substantially all of the Company's assets, including intellectual property and certain other assets. The First Amendment was accounted for as a debt modification; as such, the financing costs of $0.2 million were reflected as additional debt discount and is amortized as an adjustment to interest expense over the term of the First Amendment.

The Term Loans bear (a) cash interest at a floating rate of the higher of (i) the Wall Street Journal prime rate (or 5.00% if less) plus 1.05%, or (ii) 4.55% (interest rate of 6.05% as of June 30, 2023), and (b) additional interest ("PIK Interest") at a per annum rate equal to 2.85%, with such interest being added to the outstanding principal balance of the Term Loans on a monthly basis. The monthly payments consist of interest-only through June 1, 2025 or, if prior to April 30, 2025, the Company achieves the Tranche 3 Milestone, subject to reasonable verification by Hercules, through June 1, 2026. Subsequent to the interest-only period, the Term Loans will be payable in equal monthly installments of principal, plus accrued and unpaid interest, through the maturity date of May 1, 2027. In addition, the Company is obligated to pay a final payment fee equal to the greater of (i) $2.145 million and (ii) 7.15% of the original principal amount of the Term Loans (which is $2.1 million as of June 30, 2023). The final payment fee is recorded as a debt discount amortized over the life of the debt. The Company may elect to prepay all or a portion of the Term Loans prior to maturity, subject to a prepayment fee of up to 1.00% of the then outstanding principal balance and the pro rata application of such payment to the final payment fee. After repayment, no Term Loan amounts may be borrowed again.

The Loan Agreement contains certain customary affirmative and negative covenants and events of default. The affirmative covenants include, among others, covenants requiring the Company to maintain its legal existence and governmental approvals, deliver certain financial reports, maintain insurance coverage and satisfy certain requirements regarding its operating accounts. The negative covenants include, among others, limitations on the Company's ability to

incur additional indebtedness and liens, merge with other companies or consummate certain changes of control, acquire other companies or businesses, make certain investments, pay dividends, transfer or dispose of assets, amend certain material agreements, including the Takeda License, or enter into various specified transactions. Upon the occurrence of an event of default, subject to any specified cure periods, all amounts owed by the Company would begin to bear interest at a rate that is 4.00% above the rate effective immediately before the event of default and may be declared immediately due and payable by Hercules, as collateral agent.

As of June 30, 2023, the Company had borrowed $25.0 million pursuant to the Loan Agreement. During the three months ended June 30, 2023, the Company recognized interest expense of $0.5 million related to the Term Loans using the effective interest method. Included in such expense was $0.1 million, related to accretion of the final payment fee to other long-term liabilities, $0.1 million of PIK interest, $0.3 million of coupon interest, and an immaterial amount of debt discount amortization. During the six months ended June 30, 2023, the Company recognized interest expense of $0.9 million related to the Term Loans using the effective interest method. Included in such expense was $0.2 million related to accretion of the final payment fee to other long-term liabilities, $0.2 million of PIK interest, $0.5 million of coupon interest, and an immaterial amount of debt discount amortization.

Future minimum principal and interest payments, including the final payment fee, as of June 30, 2023 are as follows (in thousands):

	June 30, 2023
Years ending December 31:	
2023	$ 719
2024	1,599
2025	8,433
2026	13,303
2027	10,645
Total principal payments, interest payments and final payment fee	34,699
Less: interest, PIK interest and final payment fee	(9,406)
Long-term debt	$ 25,293

10. Stockholders' Equity

Initial Public Offering

On May 3, 2022, the Company completed its IPO whereby it sold 13,529,750 shares of common stock at a public offering price of $17.00 per share, for net proceeds of approximately $209.5 million, after deducting underwriting discounts, commissions and offering costs of approximately $20.5 million. In connection with the Company's IPO, the Company increased the number of authorized shares of the Company's common stock and preferred stock to 500,000,000 shares and 50,000,000 shares, respectively.

At-the-Market-Offering

On May 12, 2023, the Company entered into an At-the-Market Equity Offering Sales Agreement (the "Sales Agreement") with Stifel, Nicolaus & Company, Incorporated (the “Agent”), pursuant to which the Company may offer and sell shares of the Company’s common stock having an aggregate offering price of up to $100.0 million from time to time, in “at the market” offerings through the Agent. Sales of the shares of common stock, if any, will be made at prevailing market prices at the time of sale, or as otherwise agreed with the Agent. The Agent will receive a commission from the Company of up to 3.0% of the gross proceeds of any shares of common stock sold under the Sales Agreement. The Company is not obligated to sell, and the Agent is not obligated to buy or sell, any shares of common stock under the Sales Agreement. As of June 30, 2023, no sales have been made pursuant to the Sales Agreement.

2021 Equity Incentive Plan

On February 8, 2021, the Company’s board of directors and stockholders approved and adopted the HilleVax, Inc. 2021 Equity Incentive Plan (the “2021 Plan”). The term of the 2021 Plan is ten years from the adoption date. Under the 2021 Plan, the Company may grant stock options, restricted stock, restricted stock units, and other stock-based awards to employees, directors or consultants of the Company and its subsidiaries. The stock options granted under the plan generally vest over a four-year period from the vesting commencement date. Upon the effectiveness of the 2022 Plan

defined and described below, no further grants will be made under the 2021 Plan, and any outstanding awards granted under the 2021 Plan will remain subject to the terms of the 2021 Plan and applicable award agreements.

2022 Incentive Award Plan

In April 2022, the Company's board of directors and stockholders approved the 2022 Incentive Award Plan (the "2022 Plan," and together with the 2021 Plan, the "Plans") under which the Company may grant stock options, restricted stock, dividend equivalents, restricted stock units, stock appreciation rights, and other stock or cash-based awards to its employees, consultants and directors. The 2022 Plan became effective in connection with the Company's IPO and will remain in effect until the tenth anniversary of its effective date, which will be April 28, 2032, unless earlier terminated by the Company's board of directors. The number of shares of the Company's common stock initially available for issuance under awards granted pursuant to the 2022 Plan was the sum of (1) 4,900,000 shares of the Company's common stock, plus (2) 216,849 shares remaining available for issuance under the 2021 Plan as of the effective date of the 2022 Plan, plus (3) any shares subject to outstanding awards under the 2021 Plan as of the effective date of the 2022 Plan that become available for issuance under the 2022 Plan thereafter in accordance with its terms. The number of shares initially available for issuance will be increased by an annual increase on January 1 of each calendar year ending in and including 2032, equal to the lesser of (1) 5% of the shares of common stock outstanding on the final day of the immediately preceding calendar year and (2) such smaller number of shares as determined by the Company's board of directors. As of June 30, 2023, 7,147,737 shares were reserved for issuance under the 2022 Plan, of which 3,824,146 shares remained available for future issuance.

2022 Employee Stock Purchase Plan

In April 2022, the Company's board of directors and stockholders approved the 2022 Employee Stock Purchase Plan (the "2022 ESPP"). The 2022 ESPP became effective in connection with the Company's IPO. The 2022 ESPP permits eligible employees who elect to participate in an offering under the ESPP to have up to a specified percentage of their eligible earnings withheld, subject to certain limitations, to purchase shares of common stock pursuant to the 2022 ESPP. The price of common stock purchased under the 2022 ESPP is equal to 85% of the lower of the fair market value of the common stock on the first trading day of the offering period or the relevant purchase date. A total of 410,000 shares of the Company's common stock was initially reserved for issuance under the 2022 ESPP. In addition, the number of shares available for issuance under the 2022 ESPP will be annually increased on January 1 of each calendar year, ending in and including 2032, by an amount equal to the lesser of (1) 1% of the shares outstanding on the final day of the immediately preceding calendar year and (2) such smaller number of shares as is determined by the Company's board of directors, provided that no more than 10,000,000 shares of the Company's common stock may be issued under the 2022 ESPP. Stock-based compensation expense related to the ESPP for the three and six months ended June 30, 2023 was not material.

A summary of the Company's stock option activity under the Plans is as follows (in thousands, except share and per share data):

	Number of Outstanding Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Balance at December 31, 2022	2,111,989	$ 10.62	9.33	$ 13,330
Granted	1,682,225	17.68		
Exercised	(21,382)	7.49		
Cancelled	(73,500)	13.02		
Balance at June 30, 2023	3,699,332	$ 13.78	9.21	$ 14,070
Vested and expected to vest at June 30, 2023	3,699,332	$ 13.78	9.19	$ 14,070
Exercisable at June 30, 2023	493,438	$ 8.28	8.61	$ 4,395

Stock-Based Compensation Expense

The assumptions used in the Black-Scholes option pricing model to determine the fair value of stock option grants were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Risk-free interest rate	3.5%–4.0%	2.9%–3.4%	3.5%–4.1%	1.9%–3.4%
Expected volatility	92.6%–95.9%	83.4%–92.9%	91.7%–95.9%	83.4%–92.9%
Expected term (in years)	5.5–6.1	6.0–6.1	5.5–6.1	5.5–6.1
Expected dividend yield	0%	0%	0%	0%

Risk-free interest rate. The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of grant for zero coupon U.S. Treasury notes with maturities similar to the expected term of the awards.

Expected volatility. Given the Company's limited historical stock price volatility data, the expected volatility assumption is based on volatilities of a peer group of similar companies whose share prices are publicly available. The peer group was developed based on companies in the biotechnology industry. The Company will continue to apply this process until a sufficient amount of historical information regarding the volatility of its own stock price becomes available.

Expected term. The expected term represents the period of time that options are expected to be outstanding. Because the Company does not have historical exercise behavior, it determines the expected life assumption using the simplified method, for employees, which is an average of the contractual term of the option and its vesting period.

Expected dividend yield. The Company bases the expected dividend yield assumption on the fact that it has never paid cash dividends and has no present intention to pay cash dividends and, therefore, used an expected dividend yield of zero.

Stock-based compensation expense has been reported in the condensed consolidated statements of operations as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Research and development	$ 1,539	$ 179	$ 2,816	$ 578
General and administrative	1,707	377	3,072	250
Total	$ 3,246	$ 556	$ 5,888	$ 828

The weighted average grant date fair value per share of option grants for the three and six months ended June 30, 2023 and 2022 was $16.77, $9.36, $17.68, and $7.31, respectively. As of June 30, 2023, total unrecognized stock-based compensation cost related to stock options was approximately $31.6 million, which is expected to be recognized over a remaining weighted-average period of approximately 3.0 years.

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

	Number of Unvested Shares	Weighted Average Grant-Date Fair Value
Balance at December 31, 2022	1,584,709	$ 0.001
Shares granted	759,266	18.000
Shares forfeited	(77,761)	0.001
Share vested	(344,872)	0.001
Balance at June 30, 2023	1,921,342	—

The Company did not issue any shares of restricted common stock during the three months ended June 30, 2023. The Company issued shares of restricted common stock during the six months ended June 30, 2023, which consisted only of restricted stock units. The Company did not issue any shares of restricted common stock during the three and six months ended June 30, 2022. The weighted average grant date fair value per share of restricted common stock grants for the six months ended June 30, 2023 was $18.00. As of June 30, 2023, total unrecognized stock-based compensation cost related to restricted stock was approximately $12.2 million, which is expected to be recognized over a remaining weighted-average period of approximately 3.6 years. For accounting purposes, unvested shares of restricted common

stock are not considered outstanding until they vest. As of June 30, 2023 and December 31, 2022, the Company had no material repurchase liability related to the unvested shares in the table above.

Common Stock Reserved for Future Issuance

Common stock reserved for future issuance consists of the following:

	June 30, 2023
Common stock options outstanding	3,699,332
Shares available for issuance under the Plans	3,824,146
Shares available for issuance under the ESPP	747,679
	8,271,157

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

The following discussion and analysis and the unaudited interim financial statements included in this Quarterly Report on Form 10-Q should be read in conjunction with the financial statements and notes thereto for the year ended December 31, 2022 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 fiscal year ended December 31, 2022 filed with the Securities and Exchange Commission (SEC) on March 17, 2023 (the 2022 Form 10-K).

Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended (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, the anticipated timing, costs, design and conduct of our ongoing and planned preclinical studies and clinical trials for our product candidates, the timing and likelihood of regulatory filings and approvals for our product candidates, our ability to commercialize our product candidates, if approved, plans and objectives of management for future operations and future results of anticipated product development efforts, are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as "anticipate," "believe," "continue" "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target" or "will" or the negative of these terms or other similar expressions. These forward-looking statements 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 business, financial condition and results of operations. 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, without limitation, the risk factors described in Part II, Item 1A, "Risk Factors" of this Quarterly Report. 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. All forward-looking statements are qualified in their entirety by this cautionary statement, which is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

Overview

We are a clinical-stage biopharmaceutical company focused on developing and commercializing novel vaccines. Our initial program, HIL-214, is a virus-like particle (VLP) based vaccine candidate for the prevention of moderate-to-severe acute gastroenteritis (AGE) caused by norovirus infection. It is estimated that norovirus causes nearly 700 million cases of illness and more than 200,000 deaths worldwide per year, as well as significant additional economic and social burden. To date, HIL-214 has been studied in nine clinical trials conducted by Takeda and LigoCyte, which collectively generated safety data from more than 4,500 subjects and immunogenicity data from more than 2,200 subjects, including safety and immunogenicity data from more than 800 pediatric subjects. A randomized, placebo-controlled Phase 2b field efficacy trial enrolled 4,712 adult subjects, and HIL-214 was well tolerated and demonstrated clinical proof of concept in preventing moderate-to-severe cases of AGE from norovirus infection. In September 2021, an open investigational new drug (IND) application was transferred to us from Takeda, under which we initiated a Phase 2b clinical trial, NEST-IN1 (Norovirus Efficacy and Safety Trial in Infants, or NOR-212), in May 2022 to evaluate the safety, immunogenicity, and efficacy of HIL-214 in infants. In May 2022, we completed enrollment of the prespecified 200 subject run-in for NEST-IN1. We resumed enrollment in NEST-IN1 in August 2022, following the prespecified safety assessment by the clinical trial's data monitoring committee. In December 2022, we reported positive interim immunogenicity results for the first 200 subjects of NEST-IN1. We expect to report top-line safety and clinical efficacy data in mid-2024. We believe HIL-214 has the potential to be the first ever vaccine approved for norovirus-related illness and will help grow HilleVax into a leading global vaccines company.

We commenced our operations in 2019 and have devoted substantially all of our resources to date to organizing and staffing our company, business planning, raising capital, in-licensing intellectual property related to our initial vaccine candidate, HIL-214, preparing for and managing our clinical trials of HIL-214, and providing other general and administrative support for our operations. We have funded operations to date primarily through the issuance of convertible promissory notes, commercial bank debt and the sale of common stock in our initial public offering (IPO) which closed in May 2022. As of June 30, 2023, we had cash, cash equivalents and marketable securities of $244.1 million. From inception to June 30, 2023, we raised aggregate gross proceeds of $137.2 million from the issuance of convertible

promissory notes and, on May 3, 2022, we completed our IPO, whereby we sold 13,529,750 shares of common stock at a public offering price of $17.00 per share, for net proceeds of approximately $209.5 million, after deducting underwriting discounts, commissions and offering costs of approximately $20.5 million.

We do not have any products approved for sale, have not generated any revenue and have incurred net losses since our inception. Our net losses for the three months ended June 30, 2023 and 2022 and the six months ended June 30, 2023 and 2022 were $27.9 million, $53.9 million, $54.8 million, and $121.8 million, respectively. As of June 30, 2023, we had an accumulated deficit of $319.8 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 HIL-214 through clinical trials, seek regulatory approval for HIL-214, expand our clinical, regulatory, quality, manufacturing and commercialization capabilities, incur significant commercialization expenses for marketing, sales, manufacturing and distribution in anticipation of obtaining potential marketing approval for HIL-214, obtain, maintain, protect and enforce our intellectual property, expand our general and administrative support functions, including hiring additional personnel.

Based on our current operating plan, we believe that our existing cash, cash equivalents and marketable securities will be sufficient to meet our anticipated cash requirements through at least the next 12 months. We have never generated any revenue and do not expect to generate any revenue from product sales unless and until we successfully complete development of, and obtain regulatory approval for, HIL-214, which will not be for several years, if ever. Accordingly, until such time as we can generate significant revenue from sales of HIL-214, if ever, we expect to finance our cash needs through equity offerings, our existing Loan Agreement, debt financings, 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. 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 vaccine candidates that we would otherwise prefer to develop and market ourselves.

Financial Operations Overview

Our financial statements include the accounts of HilleVax (formerly MokshaCo, Inc. and also the receiving entity), North Bridge V, Inc. (North Bridge V) and YamadaCo III, Inc. (YamadaCo III), prior to being merged into a single entity effective February 8, 2021. Our financial statements also include the accounts of our wholly-owned subsidiary HilleVax GmbH subsequent to its formation in May 2021 and our wholly-owned subsidiary HilleVax Security Corporation subsequent to its formation in December 2021. The functional currency of our Company, HilleVax GmbH and HilleVax Security Corporation is the U.S. dollar. HilleVax, North Bridge V and YamadaCo III were entities under common control of Frazier Life Sciences X, L.P. or its affiliates (Frazier), as a result of, among other things, Frazier's: (i) ownership of a majority of the outstanding capital stock of each of the companies; (ii) financing of each of the companies; (iii) control of board of directors of each of the companies; and (iv) management of each of the companies. All of the companies were formed for the purpose of identifying potential assets around which to form an operating company. As the merged entities were under common control, the financial statements report the financial position, results of operations and cash flows of the merged companies for all periods presented. All intercompany transactions have been eliminated in consolidation.

License Agreement with Takeda

On July 2, 2021, we and Takeda Vaccines, Inc. (Takeda), a subsidiary of Takeda Pharmaceutical Company Limited, entered into a license agreement (the Takeda License), pursuant to which we exclusively in-licensed certain intellectual property rights to commercialize HIL-214 products worldwide (excluding Japan) (the Territory). We will be responsible, at our cost, for the development, manufacture and commercialization of HIL-214 products. We are obligated to use commercially reasonable efforts to develop and commercialize HIL-214 products in the Territory, and to seek regulatory approval for such products throughout the world.

We paid Takeda upfront consideration consisting of 840,500 shares of our common stock and a warrant to purchase 5,883,500 shares of our common stock (the Takeda Warrant). We further agreed that, in the event that Takeda's fully-diluted ownership, including the Takeda Warrant, represents less than a certain specified percentage of our fully-diluted capitalization, including shares issuable upon conversion of outstanding convertible promissory notes, calculated immediately prior to the closing of our IPO, we would issue an additional warrant to purchase shares of common stock such that Takeda would hold a certain specified percentage of the fully-diluted capitalization immediately before the closing of our IPO (the Takeda Warrant Right). The Takeda Warrant was fully exercised in November 2022. The Takeda Warrant Right expired in connection with our IPO and no additional warrant was issued. We also paid Takeda $2.5 million in cash upon the consummation of our convertible note financing in August 2021 and paid Takeda $2.5 million in March

2022 upon release of certain drug products and completion of certain regulatory activities. We are required to make to Takeda a one-time payment of $7.5 million upon achievement of a specified development milestone and commercial milestone payments of up to $150.0 million in the aggregate if certain annual sales targets for HIL-214 products are met in the Territory. We agreed to pay Takeda tiered high-single digit to low-teen percentage royalties on net sales of HIL-214 products in the Territory, subject to specified offsets and reductions, and Takeda agreed to pay us tiered mid-single digit to low-double digit percentage royalties on net sales of HIL-214 products in Japan, subject to specified offsets and reductions. Royalties will be payable, on a product-by-product and country-by-country basis beginning on the first commercial sale of such product in such country, until the later of (i) the expiration of the licensed patents covering the applicable product, (ii) the expiration of regulatory exclusivity in such country, or (iii) 20 years following the first commercial sale of such product in such country.

Transitional Services Agreement with Takeda

As contemplated by the Takeda License, on December 17, 2021, we and Takeda entered into a Transitional Services Agreement (the TSA). Pursuant to the TSA, Takeda has agreed to provide, on a transitional basis following the effective date of the Takeda License, certain services related to research and development and regulatory assistance services, oversight and management of ongoing clinical and research studies, and maintenance of certain third-party vendor contracts. In consideration for the services provided under the TSA, we have agreed to pay certain specified amounts to Takeda in cash for such services and certain pass-through costs. For the three and six months ended June 30, 2023 and 2022, we incurred $29,000, $0.2 million, $0.2 million, and $1.6 million, respectively, of research and development expenses for Takeda's services.

Components of Results of Operations

Operating Expenses

Research and Development

During 2023 and 2022, our research and development expenses have primarily been related to the development of HIL-214. 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 CROs and consultants to conduct and support our planned clinical trials of HIL-214; and
- costs related to manufacturing HIL-214 for our planned clinical trials.

We plan to substantially increase our research and development expenses for the foreseeable future as we continue the development of HIL-214. We cannot determine with certainty the timing of initiation, the duration or the completion costs of current or future preclinical studies and clinical trials of HIL-214 or any future vaccine 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 whether HIL-214 or any future vaccine 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 development costs may vary significantly based on factors such as:

- 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 subjects;
- the number of subjects that participate in the trials;
- the number of doses evaluated in the trials;

- the costs and timing of manufacturing HIL-214 and placebo for use in our trials;
- the drop-out or discontinuation rates of clinical trial subjects;
- potential additional safety monitoring requested by regulatory agencies;
- the duration of subject participation in the trials and follow-up;
- the phase of development of the vaccine candidate;
- the impact of any interruptions to our operations or to those of the third parties with whom we work due to any future pandemic or other disease outbreaks; and
- the safety, purity, potency, immunogenicity and efficacy of the vaccine candidate.

In-Process Research and Development

In-process research and development expenses for the six months ended June 30, 2022 relate to the Takeda License, and include an aggregate $2.5 million contingent payment upon the release of certain drug products and the completion of certain regulatory activities, which have no alternative future use. We did not incur any in-process research and development expenses during the three and six months ended June 30, 2023.

General and Administrative

General and administrative expenses consist of salaries and employee-related costs for personnel in executive, finance and other administrative functions, legal fees relating to intellectual property and corporate matters, and professional fees for accounting, auditing and consulting services. We anticipate that our general and administrative expenses will increase substantially in the future to support our research and development activities, pre-commercial preparation activities for HIL-214 and, if any vaccine 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 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 earned on our cash, cash equivalents and marketable securities.

Interest Expense

Interest expense consists of interest on our then outstanding convertible promissory notes and our term loan facility.

Change in Fair Value of Warrant Liabilities

In connection with the Takeda License, we issued the Takeda Warrant and Takeda Warrant Right (together, the Takeda Warrants). The Takeda Warrants were accounted for as liabilities until they met all the conditions for equity classification due to (i) insufficient authorized shares for the Takeda Warrant and (ii) the Takeda Warrant Right is not indexed to our own stock. Prior to our IPO, we adjusted the carrying value of the Takeda Warrants to their estimated fair value at each reporting date, with any change in fair value of the warrant liabilities recorded as an increase or decrease to change in fair value of warrant liabilities in the condensed consolidated statements of operations. The Takeda Warrant, which became exercisable upon our IPO, was for the purchase of 5,883,500 shares of our common stock at an exercise price of $0.0000595 per share and was fully exercised in November 2022. As a result of increasing our authorized shares of common stock in the second quarter of 2022, the Takeda Warrant met the requirements to be equity classified, and we reclassified the fair value of the Takeda Warrant to stockholders' equity. The Takeda Warrant Right expired upon the closing of our IPO without effect to the financial statements since no fair value was allocated to it at that time. Prior to the reclassification to stockholders' equity, the fair value of the Takeda Warrants was derived from the model used to estimate the fair value of our common stock and, upon reclassification, the fair value was based on our IPO price.

Change in Fair Value of Convertible Promissory Notes

We issued convertible promissory notes in 2019, 2020 and 2021 for which we elected the fair value option. We adjusted the carrying value of our convertible promissory notes to their estimated fair value at each reporting date, with any change in fair value of the convertible promissory notes recorded as an increase or decrease to change in fair value of convertible promissory notes in our condensed consolidated statements of operations. All outstanding convertible promissory notes and related accrued interest converted into shares of our common stock immediately prior to the closing of our IPO.

Prior to our IPO, the fair value of our convertible promissory notes was estimated using a scenario-based analysis that estimated the fair value of the convertible promissory notes based on the probability-weighted present value of expected future investment returns, considering possible outcomes available to the noteholders, including various IPO, settlement, equity financing, corporate transactions and dissolution scenarios. The conversion date fair value of the convertible promissory notes was reclassified to stockholders' equity using our publicly traded closing price on the date the convertible promissory notes were converted to common stock.

Results of Operations

Comparison of the three months ended June 30, 2023 and 2022

The following table summarizes our results of operations for the periods indicated (in thousands):

	Three Months Ended June 30,		
	2023	2022	Change
Operating expenses:			
Research and development	$ 22,953	$ 8,826	$ 14,127
General and administrative	7,231	3,982	3,249
Total operating expenses	30,184	12,808	17,376
Loss from operations	(30,184)	(12,808)	(17,376)
Other income (expense):			
Interest income	$ 2,453	334	2,119
Interest expense	(500)	(888)	388
Change in fair value of convertible promissory notes	—	(34,396)	34,396
Change in fair value of warrant liabilities	—	(6,151)	6,151
Other income (expense)	329	(20)	349
Total other income (expense)	2,282	(41,121)	43,403
Net loss	$ (27,902)	$ (53,929)	$ 26,027

Research and development expenses. Research and development expenses were $23.0 million and $8.8 million for the three months ended June 30, 2023 and 2022, respectively. The increase of $14.1 million primarily consisted of $10.3 million of clinical development expenses for HIL-214, $3.3 million of personnel-related expenses, primarily due to the increase in headcount, including $1.5 million of stock-based compensation expense, and $0.5 million of facility and other expenses.

General and administrative expenses. General and administrative expenses were $7.2 million and $4.0 million for the three months ended June 30, 2023 and 2022, respectively. The increase of $3.2 million primarily consisted of $1.9 million of personnel-related expenses, primarily due to the increase in headcount, including $1.7 million of stock-based compensation expense, $0.7 million of facility and other expenses, and $0.6 million in professional services expenses, primarily due to D&O insurance as well as accounting, audit, tax, valuation and other services incurred as we began operating as a public company.

Other income (expense). Other income of $2.3 million for the three months ended June 30, 2023 primarily consisted of $2.5 million of interest income on our cash, cash equivalents and marketable securities and $0.3 million of other income, partially offset by $0.5 million of interest expense on our term loan facility. Other expense of $41.1 million for the three months ended June 30, 2022 primarily consisted of $34.4 million of other expense related to the increase in fair value of our convertible promissory notes, $6.2 million of other expense related to the increase in fair value of the Takeda Warrant,

$0.7 million of interest expense on our outstanding convertible promissory notes and $0.1 million of interest expense on our term loan facility, offset by $0.3 million of interest income on our cash and cash equivalents.

Comparison of the six months ended June 30, 2023 and 2022

The following table summarizes our results of operations for the periods indicated (in thousands):

	Six Months Ended June 30,		
	2023	2022	Change
Operating expenses:			
Research and development	$ 46,117	$ 15,037	$ 31,080
In-process research and development	—	2,500	(2,500)
General and administrative	13,026	6,585	6,441
Total operating expenses	59,143	24,122	35,021
Loss from operations	(59,143)	(24,122)	(35,021)
Other income (expense):			
Interest income	$ 5,027	340	4,687
Interest expense	(949)	(2,952)	2,003
Change in fair value of convertible promissory notes	—	(51,469)	51,469
Change in fair value of warrant liabilities	—	(43,575)	43,575
Other income (expense)	274	(38)	312
Total other income (expense)	4,352	(97,694)	102,046
Net loss	$ (54,791)	$ (121,816)	$ 67,025

Research and development expenses. Research and development expenses were $46.1 million and $15.0 million for the six months ended June 30, 2023 and 2022, respectively. The increase of $31.1 million primarily consisted of $22.6 million of clinical development expenses for HIL-214, $6.9 million of personnel-related expenses, primarily due to the increase in headcount, including $2.8 million of stock-based compensation expense, and $1.6 million of facility and other expenses.

In-process research and development expenses. We had $2.5 million of in-process research and development expenses for the three months ended March 31, 2022 related to the Takeda License, which was entered into in 2021. We did not incur any in-process research and development expenses for the three and six months ended June 30, 2023.

General and administrative expenses. General and administrative expenses were $13.0 million and $6.6 million for the six months ended June 30, 2023 and 2022, respectively. The increase of $6.4 million primarily consisted of $4.0 million of personnel-related expenses, primarily due to the increase in headcount, including $3.0 million of stock-based compensation expense, $1.5 million of facility and other expenses, and $0.9 million in professional services expenses, primarily due to D&O insurance as well as accounting, audit, tax, valuation and other services incurred as we began operating as a public company.

Other income (expense). Other income of $4.4 million for the six months ended June 30, 2023 primarily consisted of $5.0 million of interest income on our cash, cash equivalents and marketable securities and $0.3 million of other income, partially offset by $0.9 million of interest expense on our term loan facility. Other expense of $97.7 million for the six months ended June 30, 2022 primarily consisted of $51.5 million of other expense related to the increase in fair value of our convertible promissory notes, $43.6 million of other expense related to the increase in fair value of the Takeda Warrant, $2.8 million of interest expense on our outstanding convertible promissory notes and $0.1 million of interest expense on our term loan facility, offset by $0.3 million of interest income on our cash and cash equivalents.

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 we continue the development and potential commercialization of HIL-214, and may never become profitable. We have funded our operations to date primarily through the issuance of convertible promissory notes, the net proceeds raised from our IPO and borrowings under our term loan facility. As of June 30, 2023, we had cash, cash equivalents and marketable securities of $244.1 million.

Term Loan Facility

On April 18, 2022, we entered into a Loan and Security Agreement (the Existing Loan Agreement and, as amended by the First Amendment (as defined below), the Loan Agreement) with Hercules Capital, Inc., as administrative and collateral agent (in such capacity, Hercules), and the lenders from time to time party thereto (the Lenders), providing for term loans (Term Loans) of up to $75.0 million. Prior to June 16, 2023, we had borrowed $15.0 million in term loans under the Existing Loan Agreement and had the right thereunder to borrow (i) an additional $15.0 million of term loans until June 30, 2023 (Term Loan Tranche 1), (ii) an additional $20.0 million of term loans until June 30, 2023 (Term Loan Tranche 2), and (iii) subject to the achievement of certain clinical development milestones by the Company, an additional $25.0 million until March 31, 2024 (Term Loan Tranche 3).

On June 16, 2023, we entered into a First Amendment to Loan and Security Agreement (the First Amendment) with Hercules and the Lenders party thereto, which amended the Existing Loan Agreement. In connection with the First Amendment, we borrowed $10.0 million under Term Loan Tranche 1. Additionally, the First Amendment, among other things, amended the following: (i) with respect to the remaining $5.0 million under Term Loan Tranche 1, modified the period during which the Company may borrow thereunder to start on December 1, 2023 and end May 31, 2024 (or such earlier date if Lenders elect in their sole discretion), (ii) with respect to Term Loan Tranche 2, modified the period during which we may borrow thereunder to start on December 1, 2023 and end May 31, 2024 (or such earlier date if Lenders elect in their sole discretion) and (iii) with respect to Term Loan Tranche 3, (a) added as a new condition to borrow thereunder that (x) our Phase 2b clinical trial evaluating the safety, immunogenicity and efficacy of HIL-214 in infants (NEST-IN1) has achieved the protocol-specified primary efficacy endpoint and (y) HIL-214 has demonstrated acceptable safety results in the NEST-IN1 clinical trial, and, as a result, we support the initiation of a Phase 3 registrational trial as the next immediate step in the development of HIL-214 (the Tranche 3 Milestone) and (b) modified the period during which we may borrow thereunder to start on the date we achieve the Tranche 3 Milestone and end on the earlier of (x) June 15, 2024 and (y) 30 days following the date we achieve the Tranche 3 Milestone. All Term Loans are subject to a minimum draw amount of $5.0 million and no event of default under the Loan Agreement having occurred and is continuing. The borrowings under the Loan Agreement are collateralized by substantially all of our assets, including intellectual property and certain other assets.

The Term Loans bear (a) cash interest at a floating rate of the higher of (i) the Wall Street Journal prime rate (or 5.00% if less) plus 1.05%, or (ii) 4.55% (interest rate of 6.05% as of June 30, 2023), and (b) additional interest (PIK Interest) at a per annum rate equal to 2.85%, with such interest being added to the outstanding principal balance of the Term Loans on a monthly basis. The monthly payments consist of interest-only through June 1, 2025 or, if prior to April 30, 2025, we achieve the Tranche 3 Milestone, subject to reasonable verification by Hercules, through June 1, 2026. Subsequent to the interest-only period, the Term Loans will be payable in equal monthly installments of principal, plus accrued and unpaid interest, through the maturity date of May 1, 2027. In addition, we are obligated to pay a final payment fee equal to the greater of (i) $2.145 million and (ii) 7.15% of the original principal amount of the Term Loans. We may elect to prepay all or a portion of the Term Loans prior to maturity, subject to a prepayment fee of up to 1.00% of the then outstanding principal balance and the pro rata application of such payment to the final payment fee. After repayment, no Term Loan amounts may be borrowed again.

The Loan Agreement contains certain customary affirmative and negative covenants and events of default. The affirmative covenants include, among others, covenants requiring us to maintain our legal existence and governmental approvals, deliver certain financial reports, maintain insurance coverage and satisfy certain requirements regarding our operating accounts. The negative covenants include, among others, limitations on our ability to incur additional indebtedness and liens, merge with other companies or consummate certain changes of control, acquire other companies or businesses, make certain investments, pay dividends, transfer or dispose of assets, amend certain material agreements, including the Takeda License, or enter into various specified transactions. Upon the occurrence of an event of default, subject to any specified cure periods, all amounts owed by us would begin to bear interest at a rate that is 4.00% above the rate effective immediately before the event of default and may be declared immediately due and payable by Hercules, as collateral agent.

As of June 30, 2023, the total outstanding borrowings, including PIK interest, under the Loan Agreement were $25.3 million. As of June 30, 2023, future minimum principal, interest and final payment fees due under the Loan Agreement were approximately $34.7 million, with $0.7 million payable for the year ending December 31, 2023. See Item 1 of Part I, “Notes to Condensed Consolidated Financial Statements — Note 9 — Convertible Promissory Notes and Long-Term Debt” of this Quarterly Report.

Convertible Promissory Note Financings

From inception to July 2021, we issued an aggregate of $8.5 million of convertible promissory notes to Frazier (the Frazier Notes), bearing interest at per annum rates ranging from 0.12% to 2.52%. In August 2021, these notes and related accrued interest were exchanged for the August 2021 Notes described below.

On August 31, 2021, we entered into a note purchase agreement under which we issued $139.5 million of unsecured convertible promissory notes (the August 2021 Notes). Of the August 2021 Notes, $103.8 million were issued to new investors, $25.0 million were issued to Frazier for cash and $10.7 million were issued to Frazier in exchange for the then outstanding principal and accrued interest on the Frazier Notes. The August 2021 Notes bore interest at a rate of 6% per annum, compounded annually. The August 2021 Notes automatically converted into 10,672,138 shares of our common stock immediately prior to the completion of our IPO.

At-the-Market-Offering

On May 12, 2023, we entered into an At-the-Market Equity Offering Sales Agreement (Sales Agreement) with Stifel, Nicolaus & Company, Incorporated (the Agent), under which we may, from time to time at prevailing market prices, sell shares of our common stock having an aggregate offering price of up to $100.0 million in "at the market" offerings through the Agent. As of June 30, 2023, no sales have been made pursuant to the Sales Agreement.

Funding Requirements

Based on our current operating plan, we believe that our existing cash, cash equivalents and marketable securities will be sufficient to meet our anticipated cash requirements through at least the next 12 months. In particular, we expect that our existing cash, cash equivalents and marketable securities will allow us to complete enrollment and dosing in, and report top-line safety and clinical efficacy data for, our Phase 2b NEST-IN1 study and technical transfer and manufacturing readiness for producing clinical trial supply for a Phase 3 study. 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 vaccine 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 planned clinical trials of HIL-214 and preclinical studies or clinical trials of other potential vaccine candidates we may choose to pursue in the future, including any modifications to clinical development plans based on feedback that we may receive from regulatory authorities;
- the costs and timing of manufacturing for HIL-214 and placebo to be used in our planned clinical trials, as well as commercial scale manufacturing, if any vaccine candidate is approved;
- the costs, timing and outcome of regulatory meetings and reviews of HIL-214 or any future vaccine candidates;
- any delays and cost increases that may result from any future pandemic or other disease outbreak;
- 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 officers and clinical development and commercial personnel;
- the terms and timing of establishing and maintaining collaborations, licenses and other similar arrangements;
- the timing and amount of the milestone, royalty or other payments we must make to Takeda and any future licensors;
- the costs and timing of establishing or securing sales and marketing capabilities if HIL-214 or future vaccine candidates are approved;

- our ability to receive recommendations from the ACIP or other foreign NITAGs, and achieve sufficient market acceptance, coverage and adequate reimbursement from third-party payors and adequate market share and revenue for any approved products;
- vaccine recipients' willingness to pay out-of-pocket for any approved products in the absence of coverage and/or adequate reimbursement from third-party payors; 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, the Loan Agreement, 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, intellectual property, future revenue streams, research programs or vaccine 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 vaccine candidates even if we would otherwise prefer to develop and market such vaccine candidates ourselves.

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,	
	2023	**2022**
Net cash provided by (used in):		
Operating activities	$ (38,371)	$ (23,925)
Investing activities	(92,933)	(2,500)
Financing activities	10,278	218,102
Net increase (decrease) in cash, cash equivalents and restricted cash	$ (121,026)	$ 191,677

Operating Activities

Net cash used in operating activities of $38.4 million for the six months ended June 30, 2023 was primarily due to our net loss of $54.8 million, partially offset by a net change of $9.9 million in our operating assets and liabilities and $6.5 million of noncash charges primarily related to $5.9 million of stock-based compensation, $0.7 million related to the amortization of operating lease right-of-use assets, $0.3 million related to amortization of debt discount, $0.2 million related to issuance of PIK interest debt and $0.1 million related to depreciation expense, partially offset by $0.6 million related to net amortization of premiums and discounts on marketable securities. The net change in operating assets and liabilities was primarily due to an increase of $2.5 million related to operating lease liabilities due to leasehold improvement reimbursements, $2.2 million in prepaid expenses and other current assets and $5.1 million in accounts payable and accrued expenses in support of the growth in our operating activities.

Net cash used in operating activities of $23.9 for the six months ended June 30, 2022 was primarily due to our net loss of $121.8 million and a net change of $1.1 million in our operating assets and liabilities, offset by $98.9 million of noncash charges primarily related to the $51.5 million change in fair value of the August 2021 Notes, the $43.6 million change in fair value of the Takeda Warrants, $2.5 million related to acquired in-process research and development, $0.8 million of stock-based compensation, $0.4 million related to the amortization of operating lease right-of-use assets and $0.1 million of noncash interest related to our term loan facility.

Investing Activities

Net cash used in investing activities of $92.9 million for the six months ended June 30, 2023 was due to $85.1 million in purchases of marketable securities and $7.8 million in purchases of property and equipment.

Net cash used in investing activities of $2.5 million for the six months ended June 30, 2022 was primarily due to the $2.5 million contingent payment we paid under the Takeda License.

Financing Activities

Net cash provided by financing activities of $10.3 million for the six months ended June 30, 2023 was due to $9.8 million of net proceeds in borrowings under our term loan facility, $0.3 million in proceeds from the issuance of stock under our stock purchase plan and $0.2 million in proceeds from the exercise of common stock options.

Net cash provided by financing activities of $218.1 million for the six months ended June 30, 2022 was primarily due to $213.4 million of net proceeds from our IPO and $4.7 million of net proceeds from borrowings under our term loan facility.

Contractual Obligations and Commitments

As of June 30, 2023, there have been no material changes outside the ordinary course of our business to the contractual obligations we reported in “Management’s discussion and analysis of financial condition and results of operations – Contractual obligations and commitments,” included in the 2022 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 condensed consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States (GAAP). The preparation of our condensed consolidated 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 condensed consolidated 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.

As of June 30, 2023, there have been no material changes to our critical accounting policies and estimates from those disclosed in “Management’s discussion and analysis of financial condition and results of operations – Critical accounting policies and estimates,” included in the 2022 Form 10-K.

JOBS Act and Smaller Reporting Company

As an emerging growth company under the Jumpstart Our Business Startups Act of 2012 (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 elected to avail ourselves of this exemption and, therefore, we will not 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. As a result, our condensed consolidated financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

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 $1.235 billion, (iii) the last day of the fiscal year in which we are deemed to be a “large accelerated filer” as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such year, or (iv) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period.

We are also a smaller reporting company as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than $250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than $100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

Recent Accounting Pronouncements

See Item 1 of Part I, “Notes to Condensed Consolidated Financial Statements — Note 2 — Summary of Significant Accounting Policies” of this Quarterly Report.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Not applicable to a smaller reporting company.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation and supervision of our Chief Executive Officer and our Chief Financial Officer, have evaluated 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 on Form 10-Q. Based on that evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that, as of the end of the period covered by this Quarterly Report on Form 10-Q, our disclosure controls and procedures were effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended June 30, 2023 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 Annual Report on Form 10-K for the year ended December 31, 2022.

PART II

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

Unregistered Sales of Equity Securities

None.

Use of Proceeds

On April 28, 2022, our registration statement on Form S-1 (File No. 333-264159) was declared effective by the SEC for our IPO. At the closing of the offering on May 3, 2022, we sold 13,529,750 shares of common stock, which included the exercise in full by the underwriters of their option to purchase 1,764,750 additional shares, at an initial public offering price of $17.00 per share and received gross proceeds of $230.0 million, which resulted in net proceeds to us of approximately $209.5 million, after deducting underwriting discounts and commissions of approximately $16.1 million and offering-related transaction costs of approximately $4.4 million. None of the expenses associated with the initial public offering were paid to directors, officers, persons owning ten percent or more of any class of equity securities, or to their associates, or to our affiliates. J.P. Morgan Securities LLC, SVB Securities LLC, Stifel, Nicolaus & Company, Incorporated and Guggenheim Securities, LLC acted as joint book-running managers for the offering.

There has been no material change in the planned use of proceeds from our IPO from that described in the prospectus for the IPO. As of June 30, 2023, we estimate that we have used approximately $97.1 million of the proceeds from our IPO for general corporate purposes, including to fund the clinical development of HIL-214.

Issuer Repurchases of Equity Securities.

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Exhibit Index

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Date	Number	
3.1	Amended and Restated Certificate of Incorporation of HilleVax, Inc.	8-K	5/3/22	3.1	
3.2	Amended and Restated Bylaws of HilleVax, Inc.	8-K	5/3/22	3.2	
10.1	At-the-Market Equity Offering Sales Agreement, dated May 12, 2023, by and between the Company and Stifel, Nicolaus & Company, Incorporated	S-3	5/12/23	1.2	
10.2	First Amendment to Loan and Security Agreement, dated June 16, 2023, by and between the Company and Hercules Capital, Inc.				X
10.3#	Non-Employee Director Compensation Program				X
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X
32.1*	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
32.2*	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
101.INS	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 Extension Calculation Linkbase Document				X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document				X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document				X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document				X
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)				X

* 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.

\# Indicates management contract or compensatory plan.

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.

HilleVax, Inc.

Date: August 14, 2023

By: /s/ Robert Hershberg, M.D., Ph.D.

Robert Hershberg, M.D., Ph.D.
Chairman, President and Chief Executive Officer (Principal Executive Officer)

Date: August 14, 2023

By: /s/ Shane Maltbie

Shane Maltbie
Chief Financial Officer (Principal Financial and Accounting Officer)

Exhibit 10.2

FIRST AMENDMENT TO LOAN AND SECURITY AGREEMENT

THIS FIRST AMENDMENT TO LOAN AND SECURITY AGREEMENT (this "Amendment"), dated as of June 16, 2023, is entered into by and among HILLEVAX, INC., a Delaware corporation ("HilleVax" or the "Borrower"), the several banks and other financial institutions or entities from time to time parties to the Loan Agreement (each, a "Lender" and collectively, "Lenders"), and HERCULES CAPITAL, INC., a Maryland corporation, in its capacity as administrative agent and collateral agent for itself and the Lenders (in such capacity, "Agent").

A. Borrower, Lenders and Agent are parties to that certain Loan and Security Agreement dated as of April 18, 2022 (as amended, restated, supplemented or otherwise modified from time to time prior to the date of this Amendment, the "Loan Agreement").

B. Borrower, Lenders and Agent have agreed to certain amendments to the Loan Agreement upon the terms and conditions more fully set forth herein.

SECTION 1Definitions; 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 2Amendment to the Loan Agreement.

(a) Upon satisfaction of the conditions set forth in Section 3 hereof, the Loan Agreement is hereby amended as follows:

(i) New Definition. The following defined term is hereby added to Section 1.1 of the Loan Agreement in proper alphabetical order:

"First Amendment Effective Date" means June 16, 2023.

(ii) Additional New Definitions. The following defined terms are hereby added to Section 1.2 of the Loan Agreement in proper alphabetical order:

Defined Term	Section
"Tranche I-A Advances"	2.1(a)(i)(A)
"Tranche I-B Advance"	2.1(a)(i)(B)
"Tranche I-C Advance"	2.1(a)(i)(C)

(iii) The following definitions in Section 1.1 of the Loan Agreement are hereby amended and restated as follows:

"Performance Milestone I Date" means the date on which the Agent receives evidence reasonably satisfactory to Agent that Borrower has collected net proceeds of no less than $150,000,000 in Cash (excluding any conversion of existing notes, share repurchases, or other holdbacks or discounts) from consideration from a Qualified IPO on a national US exchange, any other issuance by HilleVax of its Equity Interests, and/or upfront considerations under business development transactions, in each case, as measured at the time made and without adjustment for subsequent changes in value, payable for the fair market value of the sale, issuance or contribution and any other property received in connection with such sale, issuance or contribution, and paid by any Person that is not a Loan Party or an Affiliate thereof (such Cash amount constituting the "Qualified Equity Raise Net Proceeds"); provided, however, that the Performance Milestone I Date must occur on or before March 31, 2023. As of the First Amendment Effective Date, the parties hereto agree that the Performance Milestone I Date has occurred.

"Performance Milestone II Date" means the date on which the Agent receives evidence reasonably satisfactory to Agent that each of the following events have occurred: (a) the Performance Milestone I Date; (b) Borrower has announced the HIL-214 Vaccine Trial will continue without material adverse modification after completion of a planned interim safety and immunogenicity analysis on the first 200 evaluable patients in the HIL-214 Vaccine Trial; and (c) Borrower has announced the completion of its patient enrollment on the HIL-214 Vaccine Trial, which for the avoidance of doubt shall involve the enrollment of approximately 3000 or more patients in the HIL-214 Vaccine Trial; provided, however, that the Performance Milestone II Date must occur on or before March 31, 2023. As of the First Amendment Effective Date, the parties hereto agree that the Performance Milestone II Date has occurred.

(iv) Section 2.1(a). Section 2.1(a) of the Loan Agreement is hereby amended and restated in its entirety as follows:

"(a) Term Commitment.

(i) *Tranche I.*

(A) Prior to the First Amendment Effective Date, Lenders severally (and not jointly) made, and Borrower drew, Term Loan Advances in an aggregate principal amount of $15,000,000 (the "Tranche I-A Advances").

(B) Subject to the terms and conditions of this Agreement, on the First Amendment Effective Date, Lenders shall severally (and not jointly) make, and Borrower agrees to draw, a Term Loan Advance of $10,000,000 (the "Tranche I-B Advance").

(C) Subject to the terms and conditions of this Agreement, beginning on December 1, 2023 until May 31, 2024 (or such earlier date if Lenders elect in their sole discretion), Borrower may request, and Lenders shall severally (and not jointly) make, one Term Loan Advance of Five Million Dollars ($5,000,000) (the "Tranche I-C Advance", and together with the Tranche I-A Advances and the Tranche I-B Advance, collectively, the "Tranche I Advances" and each, a "Tranche I Advance").

(ii) *Tranche II.* Subject to the terms and conditions of this Agreement, beginning on December 1, 2023 until May 31, 2024 (or such earlier date if Lenders elect in their sole discretion), Borrower may request, and Lenders shall severally (and not jointly) make, one or more additional Term Loan Advances in minimum increments of $5,000,000 (or if less than $5,000,000, the remaining amount of Term Loan Advances available to be drawn pursuant to this Section 2.1(a)(ii)) in an aggregate principal amount of up to $20,000,000 (such Term Loan Advances, the "Tranche II Advances").

(iii) *Tranche III*. Subject to the terms and conditions of this Agreement, at any time on or after the Performance Milestone III Date until the earlier of (i) June 15, 2024 and (ii) 30 days following the Performance Milestone III Date, Borrower may request, and Lenders shall severally (and not jointly) make, one or more additional Term Loan Advances in minimum increments of $5,000,000 (or if less than $5,000,000, the remaining amount of Term Loan Advances available to be drawn pursuant to this Section 2.1(a)(iii)) in an aggregate principal amount up to $25,000,000 (such Term Loan Advances, the "Tranche III Advances")."

(v) Section 2.1(b). Section 2.1(b) of the Loan Agreement is hereby amended and restated in its entirety as follows:

"(b) Advance Request. To obtain a Term Loan Advance, Borrower shall complete, sign and deliver an Advance Request to Agent at least five (5) Business Days before the Advance Date, other than the Term Loan Advance to be made on the Closing Date or the First Amendment Effective Date, which shall be at least one (1) Business Day before the Advance Date. Lenders shall fund the Term Loan Advance in the manner requested by the Advance Request provided that each of the conditions precedent to such Term Loan Advance is satisfied as of the requested Advance Date."

(b) Schedule. Schedule 1.1 to the Loan Agreement is hereby amended and restated as set forth in Schedule 1.1 attached hereto.

(c) **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 3Conditions of Effectiveness. The effectiveness of this Amendment 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 (such date of satisfaction of all such conditions precedent, the "First Amendment Effective Date"):

(a) this Amendment, duly executed by Agent, Lenders and Borrower;

(b) Borrower shall have paid the Agent (on behalf of the Lenders) an amendment fee in an amount of $200,000;

(c) Borrower shall have executed and delivered to Agent an Advance Request in the principal amount of Ten Million Dollars ($10,000,000), in accordance with Section 4.2(a)(i) of the Loan Agreement, as amended by this Amendment;

(d) Borrower shall have paid (i) all invoiced costs and expenses then due in accordance with Section 7(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) as of the date hereof, immediately after giving effect to the amendments of the Loan Agreement contemplated hereby:

(i) the representations and warranties contained in Section 4 shall be true and correct on and as of the date hereof 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 4Representations 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 an earlier date such representations and warranties shall be true and correct as of such earlier date, and (b) that no Event of Default has occurred and is continuing; (c) that there has not been and there does not exist a Material Adverse Effect; (d) 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, pursuant to the Loan Documents or otherwise granted to or held by Lenders; (e) 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 (f) 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 4, 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 5Release. 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. Borrower waives the provisions of California Civil Code section 1542, which states:

> A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS THAT THE CREDITOR OR RELEASING PARTY DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE AND THAT IF KNOWN BY HIM OR HER, WOULD HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR OR RELEASED PARTY

SECTION 6Performance Milestone II Date. As of the date hereof, Borrower, Agent and Lenders acknowledge and agree that the Performance Milestone II Date is deemed to have occurred.

SECTION 7Miscellaneous.

(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) 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 3.1 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, and (4) 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 3, 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 Lender 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 reasonable and documented out-of-pocket costs and expenses of Agent and each Lender party hereto, and the reasonable and documented fees and disbursements of counsel to Agent and each Lender party hereto 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 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.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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

BORROWER:

HILLEVAX, INC.

Signature: /s/ Shane Maltbie

Print Name: Shane Maltbie

Title: Chief Financial Officer

[SIGNATURES CONTINUE ON THE NEXT PAGE]

AGENT:

HERCULES CAPITAL, INC.

Signature: /s/ Jennifer Choe

Print Name: Jennifer Choe

Title: Associate General Counsel

LENDERS:

HERCULES CAPITAL, INC.

Signature: /s/ Jennifer Choe

Print Name: Jennifer Choe

Title: Associate General Counsel

HERCULES CAPITAL IV, L.P.

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

By: Hercules Capital, Inc., its Manager

Signature: /s/ Jennifer Choe

Print Name: Jennifer Choe

Title: Associate General Counsel

HERCULES PRIVATE GLOBAL VENTURE GROWTH FUND I L.P.

By: Hercules Adviser LLC, its Investment Adviser

Signature: /s/ Jennifer Choe

Print Name: Jennifer Choe

Title: Associate General Counsel

HERCULES PRIVATE CREDIT FUND 1 L.P.

By: Hercules Adviser LLC, its Investment Adviser

Signature: /s/ Jennifer Choe

Print Name: Jennifer Choe

Title: Associate General Counsel

SCHEDULE 1.1

COMMITMENTS

LENDER	TRANCHE I COMMITMENT	TRANCHE II COMMITMENT	TRANCHE III COMMITMENT	TERM COMMITMENT
Hercules Capital IV, L.P.	$20,000,000	$0	$0	$20,000,000
Hercules Private Global Venture Growth Fund I L.P.	$3,000,000	$2,000,000	$2,500,000	$7,500,000
Hercules Private Credit Fund 1 L.P.	$3,000,000	$2,000,000	$2,500,000	$7,500,000
Hercules Capital, Inc.	$4,000,000	$16,000,000	$20,000,000	$40,000,000
TOTAL COMMITMENTS	$30,000,000	$20,000,000	$25,000,000	$75,000,000

Exhibit 10.3

HILLEVAX, INC.

NON-EMPLOYEE DIRECTOR COMPENSATION PROGRAM

(AMENDED AND RESTATED EFFECTIVE JUNE 6, 2023)

Non-employee members of the board of directors (the "***Board***") of HilleVax, Inc. (the "***Company***") shall receive cash and equity compensation as set forth in this Non-Employee Director Compensation Program (this "***Program***"). 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 and subject to any limits on non-employee director compensation set forth in the Equity Plan (as defined below). 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, except for equity compensation previously granted to a Non-Employee Director.

CASH COMPENSATION

The schedule of annual retainers (the "***Annual Retainers***") for the Non-Employee Directors is as follows:

Position	**Amount**
Base Board Retainer	$40,000
Chair of the Board or Lead Independent Director	$20,000
Chair of Audit Committee	$20,000
Chair of Compensation Committee	$12,000
Chair of Nominating and Corporate Governance Committee	$8,000
Member of Audit Committee (non-Chair)	$10,000
Member of Compensation Committee (non-Chair)	$6,000

Position	Amount
Member of Nominating and Corporate Governance Committee (non-Chair)	$4,000

For the avoidance of doubt, the Annual Retainers in the table above are additive and a Non-Employee Director shall be eligible to earn an Annual Retainer for each position in which he or she serves. The Annual Retainers shall be earned on a quarterly basis based on a calendar quarter and shall be paid in cash by the Company in arrears not later than the fifteenth day following the end of each calendar quarter. In the event a Non-Employee Director does not serve as a Non-Employee Director, or in the applicable position, for an entire calendar quarter, the Annual 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. The Board may adopt a program that allows Non-Employee Directors to defer Annual Retainers.

EQUITY COMPENSATION

Each Non-Employee Director shall be granted the equity awards described below, which equity awards shall be granted under and subject to the terms and provisions of the Company's 2022 Incentive Award Plan or any other applicable Company equity incentive plan then-maintained by the Company (the "***Equity Plan***"), and shall be subject to an equity award agreement in substantially the form previously approved by the Board for use under the Equity Plan. All applicable terms of the Equity Plan apply to this Program as if fully set forth herein, and all grants of equity awards hereby are subject in all respects to the terms of the Equity Plan and the applicable equity award agreement.

A. Initial Awards. Each Non-Employee Director who is initially elected or appointed to the Board shall be automatically granted stock options to purchase 45,000 shares of the Company's common stock under the Equity Plan on the date of such initial election or appointment. The awards described in this Section shall be referred to as "***Initial Awards***."

B. Annual 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, and (ii) will continue to serve as a Non-Employee Director immediately following such meeting, shall be automatically granted stock options to purchase 22,500 shares of the Company's common stock under the Equity Plan on the date of such annual meeting. The awards described in this Section shall be referred to as "***Annual 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 Annual Award on the date of such meeting as well. In addition, in the event of an adjournment or postponement of any annual meeting following the time such meeting commences, the date of the annual meeting for purposes of this clause (B) shall be the date on which the business to be conducted at the annual meeting is concluded.

Notwithstanding the foregoing, a Non-Employee Director shall have served as a Non-Employee Director for at least (6) months as of the date of any annual meeting to receive an Annual Award, unless otherwise determined by the Board; in which case, the Board may determine to grant such Non-Employee Director an Annual Award or a Prorated Annual Award (as defined below). "***Prorated Annual Award***" means the product determined by multiplying (i) the Annual Award, by (ii) a fraction, the numerator of which is equal to (x) 365 minus (y) the number of days that elapsed from the date of the annual meeting of the Company's stockholders preceding the Non-Employee Director's date of initial election or appointment to the date of such initial election or appointment, and the denominator of which is 365.

C. Terms of Awards Granted to Non-Employee Directors.

1. *Vesting*. Each Initial Award shall vest and become exercisable in substantially equal monthly installments over the three (3) years beginning on the date of the Non-Employee Director's election or appointment to the Board, subject to the Non-Employee Director continuing in service on the Board through each such vesting date. Each Annual 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.

2. *Forfeiture.* Unless the Board otherwise determines or as otherwise provided in this Clause (2), any portion of an Initial Award or Annual Award which is unvested at the time of a Non-Employee Director's termination of service on the Board as a Non-Employee Director shall be immediately forfeited upon such termination of service and shall not thereafter become vested. All of a Non-Employee Director's Initial Awards and Annual Awards shall vest in full upon a Non-Employee Director's Termination of Service by reason of death or Disability and immediately prior to the occurrence of a Change in Control (as defined in the Equity Plan), to the extent outstanding at such time.

3. *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.

* * * * *

Exhibit 31.1

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

I, Robert Hershberg, M.D., Ph.D., certify that:

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

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

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

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

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

   (b) (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 14, 2023

By: /s/ Robert Hershberg, M.D., Ph.D.

Robert Hershberg, M.D., Ph.D.
Chairman, President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

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

I, Shane Maltbie, certify that:

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

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

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

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

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

   (b) (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 14, 2023

By: /s/ Shane Maltbie

Shane Maltbie
Chief Financial 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 HilleVax, Inc. (the "Company") for the period ended June 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Robert Hershberg, M.D., Ph.D., 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) 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 result of operations of the Company.

Date: August 14, 2023

By: /s/ Robert Hershberg, M.D., Ph.D.
Robert Hershberg, M.D., Ph.D.
Chairman, President and Chief Executive Officer
(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 HilleVax, Inc. (the "Company") for the period ended June 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Shane Maltbie, as Chief Financial Officer, 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) 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 result of operations of the Company.

Date: August 14, 2023

By: /s/ Shane Maltbie
Shane Maltbie
Chief Financial 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.