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 March 31, 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: 001-38130

Aileron Therapeutics, Inc.
(Exact Name of Registrant as Specified in its Charter)

Delaware	**13-4196017**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
738 Main Street #398 Waltham, MA	**02451**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (617) 995-0900

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, $0.001 par value per share	ALRN	The Nasdaq Capital Market

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

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

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

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 May 4, 2023, the registrant had 4,541,167 shares of common stock, $0.001 par value per share, outstanding.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This Quarterly Report on Form 10-Q contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this Quarterly Report on Form 10-Q, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans and objectives of management and expected market growth are forward-looking statements. The words "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

These forward-looking statements include, among other things, statements about:

- our assessment of strategic options and our ability to identify and implement any strategic transaction;
- anticipated cost savings in connection with our discontinuation of ALRN-6924 and our workforce reduction announced in February 2023;
- success in retaining, or changes required in, our remaining current officers, key employees or directors;
- our expectations regarding our ability to fund our operating expenses and capital expenditure requirements with our cash, cash equivalents and investments;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- our intellectual property position and strategy;
- developments relating to our competitors and our industry;
- the impact of government laws and regulations;
- the impact the coronavirus pandemic may have on our operations; and
- our ability to maintain our listing on the Nasdaq Capital Market.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements in our Annual Report on Form 10-K and in this Quarterly Report on Form 10-Q, particularly in the "Risk Factors" section, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, collaborations, joint ventures or investments that we may make or enter into.

You should read this Quarterly Report on Form 10-Q and the documents that we reference herein and have filed or incorporated by reference hereto completely and with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

This Quarterly Report on Form 10-Q includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information.

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements.

AILERON THERAPEUTICS, INC.
CONDENSED BALANCE SHEETS (UNAUDITED)

(In thousands, except share and per share data)

	March 31, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 7,783	$ 5,194
Investments	8,938	16,048
Prepaid expenses and other current assets	359	606
Restricted cash	25	25
Total current assets	17,105	21,873
Operating lease, right-of-use asset	—	40
Other non-current assets	—	24
Property and equipment, net	52	70
Total assets	$ 17,157	$ 22,007
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 458	$ 1,720
Accrued expenses and other current liabilities	2,426	1,631
Operating lease liability, current portion	—	33
Total current liabilities	2,884	3,384
Total liabilities	2,884	3,384
Commitments and contingencies (Note 12)		
Stockholders' equity:		
Preferred stock, $0.001 par value; 5,000,000 shares authorized and no shares issued and outstanding at March 31, 2023 and December 31, 2022, respectively	—	—
Common stock, $0.001 par value; 45,000,000 shares authorized at March 31, 2023 and December 31, 2022, respectively; 4,541,167 shares issued and outstanding at March 31, 2023 and December 31, 2022, respectively	91	91
Additional paid-in capital	291,756	291,365
Accumulated other comprehensive loss	(10)	(48)
Accumulated deficit	(277,564)	(272,785)
Total stockholders' equity	14,273	18,623
Total liabilities and stockholders' equity	$ 17,157	$ 22,007

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

AILERON THERAPEUTICS, INC.
CONDENSED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS (UNAUDITED)

(In thousands, except share and per share data)

	Three Months Ended March 31,	
	2023	**2022**
Revenue	$ —	$ —
Operating expenses:		
Research and development	1,810	5,893
General and administrative	2,179	2,528
Restructuring and Other Costs	1,022	—
Total operating expenses	5,011	8,421
Loss from operations	(5,011)	(8,421)
Interest income	55	21
Other income, net	177	(22)
Net loss	(4,779)	(8,422)
Net loss per share — basic and diluted	$ (1.05)	$ (1.86)
Weighted average common shares outstanding—basic and diluted	4,541,167	4,533,679
Comprehensive loss:		—
Net loss	$ (4,779)	$ (8,422)
Other comprehensive loss:		
Unrealized gain (loss) on investments, net of tax of $0	38	(62)
Total other comprehensive gain (loss)	38	(62)
Total comprehensive loss	$ (4,741)	$ (8,484)

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

AILERON THERAPEUTICS, INC.
CONDENSED STATEMENT OF STOCKHOLDERS' EQUITY (UNAUDITED)

(In thousands, except share and per share data)

	Common Stock		Additional	Accumulated Other		Total
	Shares	Par Value	Paid-in Capital	Comprehensive Gain (Loss)	Accumulated Deficit	Stockholders' Equity
Balances at December 31, 2022	4,541,167	$ 91	$ 291,365	$ (48)	$ (272,785)	$ 18,623
Stock-based compensation expense	—	—	391	—	—	391
Unrealized gain on investments	—	—	—	38	—	38
Net loss	—	—	—	—	(4,779)	(4,779)
Balances at March 31, 2023	4,541,167	$ 91	$ 291,756	$ (10)	$ (277,564)	$ 14,273
Balances at December 31, 2021	4,528,667	$ 91	$ 289,282	$ (13)	$ (245,456)	$ 43,904
Issuance of common stock	12,500	—	—	—	—	—
Stock-based compensation expense	—	—	689	—	—	689
Unrealized loss on investments	—	—	—	(62)	—	(62)
Net loss	—	—	—	—	(8,422)	(8,422)
Balances at March 31, 2022	4,541,167	91	$ 289,971	$ (75)	$ (253,878)	$ 36,109

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

AILERON THERAPEUTICS, INC.
CONDENSED STATEMENTS OF CASH FLOWS (UNAUDITED)

(In thousands)

	Three Months Ended March 31,	
	2023	**2022**
Cash flows from operating activities:		
Net loss	$ (4,779)	$ (8,422)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization expense	43	41
Net amortization of premiums and discounts on investments	(103)	(3)
Stock-based compensation expense	391	689
Loss on disposal of fixed assets	16	—
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	247	326
Other assets	24	—
Accounts payable	(1,262)	(187)
Operating lease liabilities	(33)	(31)
Accrued expenses and other current liabilities	795	(213)
Net cash used in operating activities	(4,661)	(7,800)
Cash flows from investing activities:		
Purchases of investments	—	(4,712)
Proceeds from sales or maturities of investments	7,250	16,361
Net cash provided by investing activities	7,250	11,649
Cash flows from financing activities:		
Proceeds from issuance of common stock, net of issuance costs	—	—
Net cash provided by financing activities	—	—
Net increase in cash, cash equivalents and restricted cash	2,589	3,849
Cash, cash equivalents and restricted cash at beginning of period	5,219	3,625
Cash, cash equivalents and restricted cash at end of period	$ 7,808	$ 7,474

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

1. Nature of the Business and Basis of Presentation

Aileron Therapeutics, Inc. ("Aileron" or the "Company") is a clinical stage chemoprotection oncology company. The Company's product candidate, ALRN-6924, is a MDM2/MDMX dual inhibitor that leverages our proprietary peptide drug technology.

On February 21, 2023, the Company decided to terminate its Phase 1b chemoprotection trial of ALRN-6924 in patients with p53-mutated breast cancer and further development of ALRN-6924. The Company determined to reduce the Company's remaining workforce from nine to three full-time employees. The Company also announced that it is exploring a range of strategic alternatives to maximize stockholder value. The Company has engaged a third party to act as a strategic advisor for this process. Strategic alternatives that are being evaluated may include, but are not limited to, an acquisition, a merger, a business combination, a sale of assets or other transaction. There is no set timetable for this process and there can be no assurance that this process will result in the Company pursuing a transaction or that any transaction, if pursued, will be completed.

When used as a chemoprotective agent, ALRN-6924 is designed to activate p53, which in turn upregulates p21, a known inhibitor of the cell replication cycle. ALRN-6924 was the only reported chemoprotective agent in clinical development to employ a biomarker strategy, in which we exclusively focused on treating patients with p53-mutated cancers. The Company originally initiated development of ALRN-6924 as an anti-cancer agent to restore p53-dependent tumor suppression in p53 wild-type tumors. When used as an anti-cancer agent, ALRN-6924 is designed to disrupt the interaction of p53 suppressors MDM2 and MDMX with tumor suppressor p53 to reactivate tumor suppression in non-mutant, or wild-type, p53 cancers.

The Company is subject to risks common to companies in the biotechnology industry, including but not limited to, new technological innovations, protection of proprietary technology, dependence on key personnel, compliance with government regulations, uncertainties in the clinical development of product candidates and in the ability to obtain needed additional financing. ALRN-6924 will require significant additional research and development efforts, including preclinical and clinical testing and regulatory approval prior to commercialization. These efforts require significant amounts of additional capital, adequate personnel infrastructure and extensive compliance-reporting capabilities.

On November 10, 2022, the Company effected a one-for-twenty reverse stock split on its common stock (the "Reverse Stock Split"). The Reverse Stock Split was reflected on the Nasdaq Capital Market beginning with the opening of trading on November 11, 2022. Pursuant to the Reverse Stock Split, every 20 shares of the Company's issued and outstanding shares of common stock were automatically combined into one issued and outstanding share of common stock, without any change in the par value per share of the common stock. The Reverse Stock Split reduced the authorized number of shares of common stock from 300,000,000 to 15,000,000 and, pursuant to the certificate of amendment, such reduced authorized number of shares of common stock was subsequently multiplied by three, such that following the Reverse Stock Split the Company has 45,000,000 shares of common stock authorized. The Reverse Stock Split affected all issued and outstanding shares of the Company's common stock, and the respective numbers of shares of common stock underlying the Company's outstanding stock options, outstanding warrants and the Company's equity incentive plans were proportionately adjusted. All share and per share amounts of the common stock included in the accompanying financial statements have been retrospectively adjusted to give effect to the Reverse Stock Split for all periods presented.

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP").

Liquidity

In accordance with Accounting Standards Update ("ASU") No. 2014-15, *Disclosures of Uncertainties about an Entity's Ability to Continue as a Going Concern* (Subtopic 205-40), management must evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the company's ability to continue as a going concern within one year after the date that the financial statements are issued. This evaluation initially does not take into consideration the potential mitigating effect of management's plans that have not been fully implemented as of the date the financial statements are issued. When substantial doubt exists under this methodology, management evaluates whether the mitigating effect of its plans sufficiently alleviates substantial doubt about the company's ability to continue as a going concern. The mitigating effect of management's plans, however, is only considered if both (1) it is probable that the plans will be effectively implemented within one year after the date that the financial statements are issued, and (2) it is probable that the plans, when implemented, will mitigate the relevant conditions or events that raise substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued. Generally, to be considered probable of being effectively implemented, the plans must have been approved before the date that the financial statements are issued.

The Company's interim financial statements have been prepared on a going concern basis, which contemplates the continuity of operations, realization of assets and the satisfaction of liabilities in the ordinary course of business. Through March 31, 2023, the Company has financed operations primarily through $145,467 in net proceeds from sales of common stock and warrants, $131,211 from sales of preferred stock prior to its IPO, and $34,910 from a collaboration agreement in 2010.

As of March 31, 2023, the Company had cash, cash equivalents and investments of $16,721. The Company has incurred losses and negative cash flows from operations and had an accumulated deficit of $277,564 as of March 31, 2023. The Company expects to continue to generate losses for the foreseeable future.

While the Company has cash, cash equivalents and investments of $16,721 as of March 31, 2023, due to the inherent uncertainty in the timing and cost of potential strategic alternatives, including their impact on its cash consumption, the Company has concluded that as of the date of this Quarterly Report on Form 10-Q there is substantial doubt about its ability to continue as a going concern for a period of twelve months from the issuance of these interim financial statements.

The Company would need substantial funding to support its continuing operations. There can be no assurance that a strategic transaction will be completed and the Company's board of directors may decide to pursue a dissolution and liquidation. If the Company is unable to enter into a strategic transaction, on a timely basis or at all, the Company may consider seeking protection under the bankruptcy laws. If the Company decides to seek protection under the bankruptcy laws, the Company would expect that it would file for bankruptcy at a time that is earlier than when it would otherwise exhaust its cash resources. If the Company decides to dissolve and liquidate its assets or to seek protection under the bankruptcy laws, it is unclear to what extent the Company will be able to pay its obligations, and, it is further unclear whether and to what extent any resources will be available for distributions to its stockholders. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting periods. Significant estimates and assumptions reflected in these financial statements include, but are not limited to, the accrual of research and development expenses and the valuation of common stock and stock-based awards. Estimates are periodically reviewed in light of changes in circumstances, facts and experience. Actual results could differ from the Company's estimates.

Unaudited Interim Financial Information

The accompanying unaudited condensed financial statements as of March 31, 2023 and for the three months ended March 31, 2023 and 2022 have been prepared by the Company pursuant to the rules and regulations of the United States Securities and Exchange Commission ("SEC") for interim financial statements. Certain information and footnote disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. However, the Company believes that the disclosures are adequate to make the information presented not misleading. These financial statements should be read in conjunction with the Company's audited financial statements and the notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2022 that was filed with the SEC on March 20, 2023.

The unaudited interim condensed financial statements have been prepared on the same basis as the audited financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary for the fair

statement of the Company's financial position as of March 31, 2023, the results of its operations for the three months ended March 31, 2023 and 2022 and its cash flows for the three months ended March 31, 2023 and 2022. The financial data and other information disclosed in these notes related to the three months ended March 31, 2023 and 2022 are unaudited. The results for the three months ended March 31, 2023 are not necessarily indicative of results to be expected for the year ending December 31, 2023, any other interim periods, or any future year or period. The accompanying balance sheet as of December 31, 2022 has been derived from the Company's audited financial statements for the year ended December 31, 2022 included in the Company's Annual Report on Form 10-K that was filed with the SEC on March 20, 2023.

Our significant accounting policies are described in Note 2 to the financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2022 that was filed with the SEC on March 20, 2023.

Concentration of Credit Risk and of Significant Suppliers

Financial instruments that potentially expose the Company to concentrations of credit risk consist primarily of cash, cash equivalents and investments. From time to time, the Company has maintained all of its cash, cash equivalents and investment balances at three accredited financial institutions, in amounts that exceed federally insured limits. The Company generally invests its excess cash in money market funds, commercial paper and corporate notes that are subject to minimal credit and market risks. Management has established guidelines relative to credit ratings and maturities intended to safeguard principal balances and maintain liquidity. The investment portfolio is maintained in accordance with the Company's investment policy, which defines allowable investments, specifies credit quality standards and limits the credit exposure of any single issuer.

Prior to the February 2023 decision to discontinue development of ALRN-6924, the Company was dependent on third-party manufacturers to supply products for research and development activities of its programs, including preclinical and clinical testing. In particular, the Company relied on a small number of manufacturers to supply it with its requirements for the active pharmaceutical ingredients and formulated drugs related to these programs. These programs could have been adversely affected by a significant interruption in the supply of active pharmaceutical ingredients and formulated drugs.

Recently Issued Accounting Pronouncements

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments-Credit Losses* (ASU 2016-13 or Topic 326): Measurement of Credit Losses on Financial Instruments, which requires the measurement and recognition of expected credit losses for financial assets held at amortized cost. ASU 2016-13 replaces the existing incurred loss impairment model with an expected loss methodology, which will result in more timely recognition of credit losses. The ASU will be effective for the Company's fiscal year beginning January 1, 2023, and the Company does not expect adoption to have a material effect on the Company's financial statements or disclosures.

Other accounting standards that have been issued or proposed by the FASB or other standards-setting bodies that do not require adoption until a future date are not expected to have a material impact on the Company's financial statements upon adoption.

3. Fair Value of Financial Assets

The following tables present information about the Company's assets that are measured at fair value on a recurring basis and indicate the level of the fair value hierarchy utilized to determine such fair values:

	Fair Value Measurements as of March 31, 2023 using:			
	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market funds	$ 5,475	$ —	$ —	$ 5,475
Investments:				
Commercial paper	—	8,938	—	8,938
	$ 5,475	$ 8,938	$ —	$ 14,413

	Fair Value Measurements as of December 31, 2022 using:			
	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market funds	$ 1,661	$ —	$ —	$ 1,661
Investments:				
Commercial paper	—	12,814	—	12,814
Treasury bills	—	3,234	—	3,234
	$ 1,661	$ 16,048	$ —	$ 17,709

As of March 31, 2023 and December 31, 2022, the Company's cash equivalents and investments were invested in money market funds, commercial paper and treasury bills and valued based on Level 1 and Level 2 inputs. In determining the fair value of its commercial paper at each date presented above, the Company relied on quoted prices for similar securities in active markets or using other inputs that are observable or can be corroborated by observable market data. The Company's cash equivalents have original maturities of less than 90 days from the date of purchase. All available-for-sale investments have contractual maturities of less than one year. During the three months ended March 31, 2023 and the year ended December 31, 2022, there were no transfers in or out of Level 3.

4. Investments

As of March 31, 2023 and December 31, 2022, the fair value of available-for-sale investments by type of security was as follows:

	March 31, 2023			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
Investments:				
Commercial paper	$ 8,948	$ —	$ (10)	$ 8,938
	$ 8,948	$ —	$ (10)	$ 8,938

	December 31, 2022			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
Investments:				
Commercial paper	$ 12,846	$ —	$ (32)	$ 12,814
Treasury bills	3,250	—	(16)	3,234
	$ 16,096	$ —	$ (48)	$ 16,048

5. Property and Equipment, Net

Property and equipment, net consisted of the following:

	March 31, 2023	December 31, 2022
Computer equipment and software	$ 324	$ 340
Less: Accumulated depreciation and amortization	(272)	(270)
	$ 52	$ 70

Depreciation and amortization expense for the three months ended March 31, 2023 and 2022 was $13 and $15 respectively. During the three months ended March 31, 2023 assets with a cost of $16 and accumulated depreciation of $10 were disposed of for no proceeds, resulting in a loss on disposal of $6.

6. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following:

	March 31, 2023	December 31, 2022
External research and development services	$ 444	$ 533
Payroll and payroll-related costs	145	425
Professional fees	810	492
Restructuring and other costs (Note 8)	992	—
Other	35	181
	$ 2,426	$ 1,631

7. Lease

On March 26, 2021, the Company entered into a sublease agreement (the "Sublease") by and among the Company, Vittoria Industries North America, Inc. (the "Sublessor") and Waterfront Equity Partners, LLC (the "Lessor"), under which the Company was leasing approximately 3,365 square feet of office space located at 285 Summer Street, Unit 101, Boston, Massachusetts (the "Premises"). The Sublease was subject and subordinate to a lease agreement, dated as of July 13, 2012, by and between the Sublessor and Lessor (the "Prime Lease"), pursuant to which the Sublessor is leasing the Premises from the Lessor. The Sublease expired March 31, 2023 and we did not renew the Sublease. Following expiration of the Sublease, we are operating virtually, and expect to do so for the foreseeable future.

8. Restructuring and Other Costs

On February 16, 2023, the Board of Directors of the Company determined to reduce the Company's remaining workforce from nine to three full-time employees. The determination to effect the workforce reduction was made in connection with the Company's decision to terminate its Phase 1b breast cancer trial of ALRN-6924 and further development of ALRN-6924.

As a result of the above restructuring initiatives, the Company incurred restructuring-related charges of $1,022 for the three months ended March 31, 2023. Restructuring-related charges were comprised of one-time termination costs in connection with the reduction-in-workforce, including severance, benefits, and related costs.

As of March 31, 2023, the short-term portion of the accrued restructuring balance, or $992, is included in "Accrued expenses and other current liabilities" in the accompanying balance sheets. The Company has paid immaterial amounts for the three months ended March 31, 2023, and expects that payment of these remaining costs will be made through the second quarter of 2023.

9. Common Stock

On June 16, 2021, the Company filed a certificate of amendment to its restated certificate of incorporation which increased the authorized number of shares of common stock from 7,500,000 shares of $0.001 par value common stock to 15,000,000 shares of common stock.

Each share of common stock entitles the holder to one vote on all matters submitted to a vote of the Company's stockholders. Common stockholders are entitled to receive dividends, as may be declared by the Company's board of directors, if any, subject to the preferential dividend rights of the preferred stock. As of March 31, 2023 and December 31, 2022, no dividends had been declared.

Reverse Stock Split

The Company's stockholders approved a reverse stock split of the Company's common stock on June 15, 2022. The Company effected the Reverse Stock Split on November 10, 2022. Pursuant to the Reverse Stock Split, every 20 shares of the Company's issued and outstanding shares of common stock were automatically combined into one issued and outstanding share of common stock,

without any change in the par value per share of the common stock. The Reverse Stock Split reduced the authorized number of shares of common stock from 300,000,000 to 15,000,000 and, pursuant to the certificate of amendment, such reduced authorized number of shares of common stock was subsequently multiplied by three, such that following the Reverse Stock Split the Company has 45,000,000 shares of common stock authorized. The Reverse Stock Split affected all issued and outstanding shares of the Company's common stock, and the respective numbers of shares of common stock underlying the Company's outstanding stock options, outstanding warrants and the Company's equity incentive plans were proportionately adjusted. All share and per share amounts disclosed give effect to the Reverse Stock Split on a retroactive basis.

Sales of Common Stock

On January 6, 2021, the Company entered into a securities purchase agreement with certain institutional investors, pursuant to which the Company issued and sold, in a registered direct offering (the "Offering"), an aggregate of 1,631,549 shares of common stock, $0.001 par value per share, at a purchase price per share of $22.00 (the "Shares"). The aggregate gross proceeds of the Offering were $35,894, before deducting $2,887 of fees payable to the placement agent and other offering expenses payable by the Company. The Offering closed on January 8, 2021.

Between January 1, 2021 and January 28, 2021, the Company issued and sold an aggregate 358,749 shares of its common stock pursuant to its sales agreement with JonesTrading Institutional Services LLC ("JonesTrading"), resulting in gross proceeds of $9,658, before deducting expenses of $290. The Company terminated its sales agreement with Jones Trading in January 2021.

On January 29, 2021, the Company entered into a Capital on Demand™ Sales Agreement (the "ATM Sales Agreement") with JonesTrading and William Blair & Company, L.L.C. ("William Blair" and, collectively with JonesTrading, the "Agents"), pursuant to which the Company may offer and sell shares of its common stock having an aggregate offering price of up to $30,000 from time to time through or to the Agents (the "ATM Offering"). During the year ended December 31, 2021, the Company issued and sold an aggregate of 261,270 shares of its common stock pursuant to the ATM Sales Agreement, resulting in gross proceeds of $10,922 before deducting expenses of $329. Pursuant to a prospectus relating to the ATM Sales Agreement filed by the Company with the SEC on June 21, 2022, the Company may from time to time offer and sell shares of its common stock having an aggregate offering price of up to $14,024 under the ATM Sales Agreement. There were no sales under the ATM Sales Agreement during the three months ended March 31, 2023, or the year ended December 31, 2022.

During the year ended December 31, 2021, the Company issued and sold an aggregate of 68,750 shares of its common stock to Lincoln Park Capital, LLC pursuant to a purchase agreement entered into between Lincoln Park Capital, LLC and the Company in September 2020, resulting in gross proceeds of $2,614. During the year ended December 31, 2020, the Company issued and sold 29,411 shares to LPC under the purchase agreement for proceeds of $500. There were no sales under the purchase agreement during the three months ended March 31, 2023, or the year ended December 31, 2022. Under the purchase agreement, the Company may not effect any sales of shares of common stock on any purchase date that the closing sale price of its common stock on Nasdaq is less than the floor price of $6.00 per share, which will be adjusted for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction

In June 2020, the Company issued and sold in an underwritten public offering an aggregate of 508,102 shares of common stock, including an additional 53,557 shares of common stock upon the partial exercise of an option of the underwriter to purchase additional shares, for a purchase price to the public of $22.00 per share. The Company received aggregate gross proceeds from the public offering of approximately $11,178, before deducting underwriting discounts and commissions and offering expenses of $932.

On April 2, 2019, the Company issued and sold in a private placement an aggregate of (i) 591,922 units, consisting of 591,922 shares of its common stock and associated warrants, or the common warrants, to purchase an aggregate of 591,922 shares of common stock, for a combined price of $40.20 per unit and (ii) 54,837 units, consisting of (a) pre-funded warrants to purchase 54,837 shares of our common stock and (b) associated common warrants to purchase 54,837 shares of common stock, for a combined price of $40.20 per unit. The pre-funded warrants had an exercise price of $0.20 per share and had no expiration. In July 2019, all outstanding pre-funded warrants were exercised for 54,837 shares of common stock. At March 31, 2023, there were 646,759 common warrants outstanding with an exercise price of $40.00 per share.

The Company has assessed the warrants for appropriate equity or liability classification and determined the warrants are freestanding instruments that do not meet the definition of a liability pursuant to ASC 480 and do not meet the definition of a derivative pursuant to ASC 815. The warrants are indexed to the Company's common stock and meet all other conditions for equity classification under ASC 480 and ASC 815. Accordingly, the warrants are classified as equity and accounted for as a component of additional paid-in capital at the time of issuance.

10. Stock-Based Awards

2021 Stock Incentive Plan

The Company's 2021 Stock Incentive Plan (the "2021 Plan") was approved by the Company's stockholders on June 15, 2021 and became effective on June 16, 2021. Under the 2021 Plan, the Company may grant incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, awards of restricted stock units and other stock-based awards. The Company's employees, officers, directors, consultants and advisors are eligible to receive awards under the 2021 Plan; however, incentive stock options may only be granted to employees. The 2021 Plan is administered by the board of directors or, at the discretion of the board of directors, by a committee of the board. The number of shares of common stock covered by options and the date those options become exercisable, type of options to be granted, exercise prices, vesting and other restrictions are determined at the discretion of the board of directors, or its committee if so delegated.

Stock options granted under the 2021 Plan with service-based vesting conditions generally vest over four years and may not have a duration in excess of ten years, although options have been granted with vesting terms of less than four years.

The total number of shares of common stock that may be issued under the 2021 Plan was 758,811 as of March 31, 2023, of which 346,074 shares remained available for grant. The Company initially reserved 625,000 shares of common stock, plus the number of shares of common stock subject to outstanding awards under the Company's 2017 Stock Incentive Plan (the "2017 Plan"), and the Company's 2016 Stock Incentive Plan ("the 2016 Plan") and the Company's 2006 Stock Incentive Plan, as amended (the "2006 Plan") that expire, terminate or are otherwise surrendered, canceled, forfeited or repurchased by the Company at their original issuance price pursuant to a contractual repurchase right up to 314,006 shares.

Shares that are expired, terminated, surrendered or canceled without having been fully exercised will be available for future awards. In addition, shares of common stock that are tendered to the Company by a participant to exercise an award are added to the number of shares of common stock available for the grant of awards.

The exercise price for stock options granted may not be less than the fair market value of the common stock as of the date of grant.

2017 Stock Incentive Plan

The 2017 Plan was approved by the Company's stockholders on June 16, 2017, and became effective on June 28, 2017. Under the 2017 Plan, the Company could grant incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, awards of restricted stock units and other stock-based awards. The Company's employees, officers, directors, consultants and advisors were eligible to receive awards under the 2017 Plan; however, incentive stock options could only be granted to employees. The 2017 Plan is administered by the board of directors or, at the discretion of the board of directors, by a committee of the board. The number of shares of common stock covered by options and the date those options become exercisable, type of options granted, exercise prices, vesting and other restrictions were determined at the discretion of the board of directors, or its committee if so delegated.

Stock options granted under the 2017 Plan with service-based vesting conditions generally vest over four years and may not have a duration in excess of ten years, although options have been granted with vesting terms of less than four years. The exercise price for stock options granted may not be less than the fair market value of the common stock as of the date of grant.

As of the effective date of the 2021 Plan, the board of directors determined to grant no further awards under the 2017 Plan.

Shares that are expired, terminated, surrendered or canceled without having been fully exercised will be available for future awards under the 2021 Plan. In addition, shares of common stock that are tendered to the Company by a participant to exercise an award are added to the number of shares of common stock available for the grant of awards under the 2021 Plan.

2017 Employee Stock Purchase Plan

On June 16, 2017, the Company's stockholders approved the 2017 Employee Stock Purchase Plan (the "2017 ESPP"), which became effective on June 28, 2017. A total of 7,500 shares of common stock were initially reserved for issuance under this plan. Under the 2017 ESPP, the number of shares of common stock that may be issued under the 2017 ESPP will automatically increase on each January 1, beginning with the fiscal year ending December 31, 2018 and continuing for each fiscal year until, and including, the fiscal year ending December 31, 2027, equal to the least of (i) 31,120 shares, (ii) 1% of the outstanding shares of common stock on such date and (iii) an amount determined by the Company's board of directors. The compensation committee of the board of directors

has determined that the number of shares of common stock that may be issued under the 2017 ESPP would not be increased on January 1, 2022 or January 1, 2023. The Company has not issued any shares under the 2017 ESPP.

Stock Option Valuation

There were no options granted to employees or directors during the three months ended March 31, 2023. The assumptions that the Company used to determine the grant-date fair value of the stock options granted to employees and directors during the three months ended March 31, 2022 were as follows, presented on a weighted average basis :

	Three Months Ended March 31, 2022
Risk-free interest rate	2.33 %
Expected term (in years)	6.1
Expected volatility	94.4 %
Expected dividend yield	0 %

Stock Options

The following table summarizes the Company's stock option activity since January 1, 2023:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding at December 31, 2022	537,112	$ 29.77	7.9	$ —
Granted	—			
Exercised	—			
Canceled, forfeited or expired	(30,126)			
Outstanding at March 31, 2023	506,986	$ 30.67	7.3	$ —
Options exercisable at March 31, 2023	318,792	$ 38.10	6.6	$ —
Options vested and expected to vest at March 31, 2023	318,792	$ 30.10	7.3	$ —
Options exercisable at December 31, 2022	288,821	$ 40.15	7.1	$ —
Options vested and expected to vest at December 31, 2022	529,549	$ 29.95	7.8	$ —

There were no options granted to employees or directors during the three months ended March 31, 2023. The weighted average grant-date fair value of stock options granted during the three months ended March 31, 2022 was $0.39.

The aggregate fair value of stock options that vested during the three months ended March 31, 2023 and 2022 was $405 and $186, respectively.

The aggregate intrinsic value of stock options is calculated as the difference between the exercise price of the stock options and the fair value of the Company's common stock for those stock options that had exercise prices lower than the fair value of the Company's common stock. There were no stock options exercised during the three months ended March 31, 2023 and 2022.

Restricted Stock Units

The Company did not have any restricted stock activity during the three months ended March 31, 2023.

Stock-Based Compensation

The Company recorded stock-based compensation expense related to stock options and restricted stock units in the following expense categories of its statements of operations and comprehensive loss:

	Three Months Ended March 31,	
	2023	2022
Research and development expenses	$ 119	$ 143
General and administrative expenses	272	546
	$ 391	$ 689

As of March 31, 2023, the Company had an aggregate of $2,459 of unrecognized stock-based compensation expense, which it expects to recognize over a weighted average period of 2.30 years.

11. Net Loss per Share

Basic and diluted net loss per share was calculated as follows**:**

	Three Months Ended March 31,	
	2023	2022
Numerator:		
Net loss	$ (4,779)	$ (8,422)
Denominator:		
Weighted average common shares outstanding—basic and diluted	4,541,167	4,533,679
Net loss per share —basic and diluted	$ (1.05)	$ (1.86)

The Company's potential dilutive securities as of March 31, 2023 and 2022, which include stock options and warrants, have been excluded from the computation of diluted net loss per share whenever the effect of including them would be to reduce the net loss per share. In periods where there is a net loss, the weighted average number of shares of common stock outstanding used to calculate both basic and diluted net loss per share is the same. The following potential shares of common stock, presented based on amounts outstanding at each period end, were excluded from the calculation of diluted net loss per share for the periods indicated because including them would have had an anti-dilutive effect:

	Three Months Ended March 31,	
	2023	2022
Warrants to purchase common stock	646,759	646,759
Stock options to purchase common stock	506,986	597,874
Total	1,153,745	1,244,633

12. Commitments and Contingencies

Intellectual Property Licenses

Harvard and Dana-Farber Agreement

In August 2006, the Company entered into an exclusive license agreement with President and Fellows of Harvard College ("Harvard") and Dana-Farber Cancer Institute ("DFCI"). The agreement granted the Company an exclusive worldwide license, with the right to sublicense, under specified patents and patent applications to develop, obtain regulatory approval for and commercialize specified product candidates based on cell-permeating peptides. Under the agreement, the Company is obligated to use commercially reasonable efforts to develop and commercialize one or more licensed products and to achieve specified milestone events by specified dates. In connection with entering into the agreement, the Company paid an upfront license fee and issued to Harvard and DFCI shares of its common stock.

In February 2010, the agreement was amended and restated (the "Harvard/DFCI agreement") under which additional patent rights were added to the scope of the license agreement and the annual license maintenance fees were increased. Under the Harvard/DFCI agreement, the Company is obligated to make aggregate milestones payments of up to $7,700 per licensed therapeutic product upon the Company's achievement of specified clinical, regulatory and sales milestones with respect to such product and up to $700 per licensed diagnostic product upon the Company's achievement of specified regulatory and sales milestones with respect to such product. In addition, the Company is obligated to pay royalties of low single-digit percentages on annual net sales of licensed products sold by the Company, its affiliates or its sublicensees. The royalties are payable on a product-by-product and country-by-country basis, and may be reduced in specified circumstances. In addition, the Harvard/DFCI agreement obligates the Company to pay a percentage, up to the mid-twenties, of fees received by the Company in connection with its sublicense of the licensed products. In accordance with the terms of the Harvard/DFCI agreement, the Company's sublicense payment obligations may be subject to specified reductions.

The Harvard/DFCI agreement requires the Company to pay annual license maintenance fees of $110. Any payments made in connection with the annual license maintenance fees will be credited against any royalties due.

The Company incurred license maintenance fees of $110 during each of the three months ended March 31, 2023 and 2022, respectively. The Company did not make any milestone payments during the three months ended March 31, 2023 and 2022, respectively. As of March 31, 2023, no additional milestones had been achieved and no liabilities for additional milestone payments had been recorded in the Company's financial statements.

As of March 31, 2023, the Company had not developed a commercial product using the licensed technologies and no royalties under the Harvard/DFCI agreement had been paid or were due.

Under the Harvard/DFCI agreement, the Company is responsible for all patent expenses related to the prosecution and maintenance of the licensed patents and applications in-licensed under the agreement as well as cost reimbursement of amounts incurred for all documented patent-related expenses. The agreement will expire on a product-by-product and country-by-country basis upon the last to expire of any valid patent claim pertaining to licensed products covered under the agreement.

Umicore Agreement

In December 2006, the Company entered into a license agreement with Materia, Inc. ("Materia"), under which it was granted a non-exclusive worldwide license, with the right to sublicense, under specified patent and patent applications to utilize Materia's catalysts to develop, obtain regulatory approval for and commercialize specified peptides owned or controlled by Materia and the right to manufacture specified compositions owned or controlled by Materia. In February 2017, Materia assigned the license agreement (the "Umicore agreement") to Umicore Precious Metals Chemistry USA, LLC ("Umicore"), and Umicore agreed to continue to supply the Company under the agreement.

Under the Umicore agreement, the Company is obligated to make aggregate milestone payments to Umicore of up to $6,400 upon the Company's achievement of specified clinical, regulatory and sales milestones with respect to each licensed product. In addition, the Company is obligated to pay tiered royalties ranging in the low single-digit percentages on annual net sales of licensed products sold by the Company or its sublicensees. The royalties are payable on a product-by-product and country-by-country basis and may be reduced in specified circumstances.

The Umicore agreement requires the Company to pay annual license fees of $50. The Company incurred license fees of $50 during the three months ended March 31, 2023 and 2022, respectively. The Company did not make any milestone payments during the three months ended March 31, 2023 and 2022, respectively. As of March 31, 2023, no additional milestones had been achieved and no liabilities for additional milestone payments had been recorded in the Company's financial statements.

The Umicore agreement expires upon the expiration of the Company's obligation to pay royalties in each territory covered under the agreement.

Indemnification Agreements

In the ordinary course of business, the Company may provide indemnification of varying scope and terms to vendors, lessors, business partners and other parties with respect to certain matters including, but not limited to, losses arising out of breach of such agreements or from intellectual property infringement claims made by third parties. In addition, the Company has entered into indemnification agreements with members of its board of directors and officers that will require the Company, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors or officers. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is, in many cases, unlimited. To date, the Company has not incurred any material costs as a result of such indemnifications. The Company is not aware of any claims for indemnification that would have a material effect on its financial position, results of operations or cash flows, and it had not accrued any liabilities related to such obligations in its financial statements as of March 31, 2023 or December 31, 2022.

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

The following discussion and analysis is meant to provide material information relevant to an assessment of the financial condition and results of operations of our company, including an evaluation of the amounts and certainty of cash flows from operations and from outside sources, so as to allow investors to better view our company from management's perspectives. You should read the following discussion and analysis of our financial condition and results of operations in conjunction with our unaudited condensed financial statements and related notes appearing elsewhere in this Quarterly Report on Form 10-Q and our audited financial statements and related notes for the year ended December 31, 2022 included in our Annual Report on Form 10-K for the year ended December 31, 2022 that was filed with the Securities and Exchange Commission, or SEC, on March 20, 2023.

Some of the statements contained in this discussion and analysis or set forth elsewhere in this Quarterly Report on Form 10-Q, including information with respect to our plans and strategy for our business, constitute forward looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. We have based these forward-looking statements on our current expectations and projections about future events. The following information and any forward-looking statements should be considered in light of factors discussed in our Annual Report on Form 10-K for the year ended December 31, 2022, as filed with the SEC on March 20, 2023, and elsewhere in this Quarterly Report on Form 10-Q particularly including those risks identified in our Annual Report on Form 10-K, Part I-Item 1A, "Risk Factors" and in this Quarterly Report on Form 10-Q, Part II-Item 1A "Risk Factors" and our other filings with the SEC.

Our actual results and timing of certain events may differ materially from the results discussed, projected, anticipated, or indicated in any forward-looking statements. We caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this Quarterly Report on Form 10-Q. Statements made herein are as of the date of the filing of this Quarterly Report on Form 10-Q with the SEC and should not be relied upon as of any subsequent date. Even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in this Quarterly Report on Form 10-Q, they may not be predictive of results or developments in future periods. We disclaim any obligation, except as specifically required by law and the rules of the SEC, to publicly update or revise any such statements to reflect any change in our expectations or in events, conditions or circumstances on which any such statements may be based or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements.

We caution readers not to place undue reliance on any forward-looking statements made by us, which speak only as of the date they are made.

Announcement of Exploration of Strategic Alternatives

In February 2023, we announced a review of initial data from our Phase 1b chemoprotection trial of ALRN-6924 in patients with p53-mutated breast cancer showed that patients in the trial experienced severe neutropenia (Grade 4) and alopecia. The primary endpoint of the Phase 1b open-label trial, which was evaluating ALRN-6924 in patients with breast cancer receiving neoadjuvant or adjuvant treatment with docetaxel, doxorubicin, and cyclophosphamide, or TAC chemotherapy, was duration and incidence of severe neutropenia in cycle 1. Incidence of chemotherapy-induced alopecia (hair loss) was a secondary endpoint. Based on these findings, we decided to terminate the Phase 1b breast cancer trial and further development of ALRN-6924.

We also announced that we are exploring a range of strategic alternatives to maximize shareholder value. We have engaged Ladenburg Thalmann & Co., Inc. to act as a strategic advisor for this process. Strategic alternatives that are being evaluated may include, but are not limited to, an acquisition, a merger, a business combination, a sale of assets or other transactions. There is no set timetable for this process and there can be no assurances that this process will result in us pursing a transaction or that any transaction, if pursued, will be completed on attractive terms. Due to the inherent uncertainty in the timing and cost of these potential strategic alternatives, including their impact on our cash consumption, we have concluded that as of the date of this Quarterly Report on Form 10-Q there is substantial doubt about our ability to continue as a going concern.

In addition, in February 2023, we determined to reduce our workforce from nine to three full-time employees, which we expect to complete in the second quarter of 2023. We plan to retain the remaining employees to assist in executing the strategic alternative review process.

Overview

ALRN-6924 is a MDM2/MDMX dual inhibitor that leverages our proprietary peptide drug technology.

When used as a chemoprotective agent, ALRN-6924 is designed to activate p53, which in turn upregulates p21, a known inhibitor of the cell replication cycle. ALRN-6924 was the only reported chemoprotective agent in clinical development to employ a biomarker strategy, in which we exclusively focused on treating patients with p53-mutated cancers. We originally initiated development of ALRN-6924 as an anti-cancer agent to restore p53-dependent tumor suppression in p53 wild-type tumors. When used as an anti-cancer agent, ALRN-6924 is designed to disrupt the interaction of p53 suppressors MDM2 and MDMX with tumor suppressor p53 to reactivate tumor suppression in non-mutant, or wild-type, p53 cancers.

Our clinical development program for ALRN-6924 as a selective chemoprotective agent in patients with p53-mutated cancer included the following clinical trials:

- A Phase 1b open-label clinical trial that evaluated ALRN-6924 as a chemoprotective agent in patients with p53-mutated breast cancer undergoing either neoadjuvant or adjuvant treatment with TAC chemotherapy;
- A Phase 1b open-label clinical trial that evaluated ALRN-6924 as a chemoprotective agent in patients with p53-mutated small cell lung cancer, or SCLC, undergoing treatment with second-line topotecan;
- A Phase 1 pharmacology study of ALRN-6924 in healthy volunteers that evaluated the safety and tolerability of ALRN-6924, in addition to its cell cycle arrest mechanism of action, pharmacokinetic, and pharmacodynamic effects, including time to onset, magnitude and duration of cell cycle arrest; and
- A Phase 1b randomized, double-blind, placebo-controlled clinical trial that evaluated ALRN-6924 as a chemoprotective agent in patients with p53-mutated non-small cell lung cancer, or NSCLC, undergoing first-line treatment with carboplatin plus pemetrexed with or without immune checkpoint inhibitors.

Our clinical development program for ALRN-6924 as an anti-cancer agent in patients with wild-type p53 included the following clinical trials:

- A single-agent Phase 1 clinical trial that evaluated ALRN-6924 for the treatment of patients with solid tumors and patients with lymphoma;
- A single-agent Phase 2a clinical trial that evaluated ALRN-6924 for the treatment of patients with peripheral T-cell lymphoma
- A single-agent and Ara-C-combination Phase 1/1b trial that evaluated ALRN-6924 for the treatment of patients with acute myeloid leukemia and myelodysplastic syndrome; and
- A combination trial that evaluated ALRN-6924 in combination with palbociclib for the treatment of patients with tumors harboring MDM2 amplifications.

Since our inception, we have devoted a substantial portion of our resources to developing our product candidates, including ALRN-6924, developing our proprietary stabilized cell-permeating peptide platform, building our intellectual property portfolio, business planning, raising capital and providing general and administrative support for these operations.

To date, we have financed operations primarily through $145.5 million in net proceeds from sales of common stock and warrants, $131.2 million from sales of preferred stock prior to our IPO, and $34.9 million from a collaboration agreement in 2010.

Since our inception, we have incurred significant losses on an aggregate basis. Our net losses were $4.8 million and $8.4 million for the three months ended March 31, 2023 and 2022, respectively. As of March 31, 2023, we had an accumulated deficit of $277.6 million. These losses have resulted primarily from costs incurred in connection with research and development activities, licensing and patent investment and general and administrative costs associated with our operations. In February 2023, we discontinued development of ALRN-6924 which substantially reduced our operating expenses while we undertake a comprehensive assessment of our strategic options. Notwithstanding these events, we expect to continue to incur operating losses for the foreseeable future.

Subject to the outcome of our exploration of strategic alternatives, we believe that, based on our current operating plan, our cash, cash equivalents and investments of $16.7 million as of March 31, 2023, will enable us to fund our operating expenses for at least twelve months following the date of this Quarterly Report on Form 10-Q. Due to the inherent uncertainty in the timing and cost of these potential strategic alternatives, including their impact on our cash consumption, we have concluded that as of the date of this Quarterly Report on Form 10-Q there is substantial doubt about our ability to continue as a going concern. Our funding estimates are based on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect, see “Liquidity and Capital Resources.” Our future viability is dependent on our ability to consummate a successful acquisition, merger, business combination, or a sale of assets or other transaction. If we do not, our board of directors may decide to explore other strategic alternatives, including, without limitation, a dissolution of our company.

Reverse Stock Split

On November 10, 2022, we completed a reverse stock split of our outstanding shares of common stock at a ratio of one-for-twenty. The reverse stock split was approved by our stockholders at our Annual Meeting of Stockholders on June 15, 2022. All share and per share amounts of the common stock included in this Quarterly Report on Form 10-Q, including in the accompanying financial statements, have been retrospectively adjusted to give effect to the reverse stock split for all periods presented, including reclassifying an amount equal to the reduction in par value to additional paid-in capital.

Components of our Results of Operations

Revenue

We have not generated any revenue from product sales and, as we do not have any product candidates under development, we do not expect to generate any revenue from the sale of products in the future.

Operating Expenses

Our expenses since inception have consisted solely of research and development costs, general and administrative, and restructuring costs.

Research and Development Expenses

For the periods presented in this Quarterly Report on Form 10-Q, research and development expenses consist primarily of costs incurred for our research activities, including our discovery efforts, and the development of ALRN-6924, and include:

- expenses incurred under agreements with third parties, including contract research organizations, or CROs, that conducted research, preclinical studies and clinical trials on our behalf as well as contract manufacturing organizations, or CMOs, that manufactured ALRN-6924 for use in our preclinical studies and clinical trials;
- salaries, benefits and other related costs, including stock-based compensation expense, for personnel engaged in research and development functions;
- costs of outside consultants, including their fees, stock-based compensation and related travel expenses;
- the costs of laboratory supplies and acquiring, developing and manufacturing preclinical study and clinical trial materials;
- third-party license fees;
- costs related to compliance with regulatory requirements; and
- facility-related expenses, which included direct depreciation costs and allocated expenses for rent and maintenance of facilities and other operating costs.

For the periods presented in this Quarterly Report on Form 10-Q, our employee and infrastructure resources were primarily devoted to the development of ALRN-6924. We expense research and development costs as incurred. We recognize costs for certain development activities, such as clinical trials, based on an evaluation of the progress to completion of specific tasks using data such as patient enrollment, clinical site activations or information provided to us by our vendors and our clinical investigative sites. Payments for these activities are based on the terms of the individual agreements, which may differ from the pattern of costs incurred, and are reflected in our financial statements as prepaid or accrued research and development expenses.

In addition, we typically used our employee and infrastructure resources across our development programs. We tracked outsourced development costs and milestone payments made under our licensing arrangements by product candidate or development program, but we did not allocate personnel costs, license payments made under our licensing arrangements or other internal costs to specific development programs or product candidates.

Research and development activities were central to our business model. Our research and development expenses decreased in the first quarter of 2023 and we expect our research and development expenses will continue to decrease as our result of our February 2023 decision to discontinue development of ALRN-6924 and our related reduction in workforce.

If we had continued development of ALRN-6924, we could not determine with certainty the duration and costs of any clinical trials of ALRN-6924 or if, when, or to what extent we would generate revenue from the commercialization and sale of any of our product candidates for which we obtained marketing approval. We may never have been successful in obtaining marketing approval for any product candidate. If we had continued development of ALRN-6924, the duration, costs and timing of clinical trials and development of ALRN-6924 would depend on a variety of factors, including:

- the scope, rate of progress, expense and results of clinical trials of ALRN-6924, or other product candidates that we may have developed and other research and development activities that we may have conducted;
- uncertainties in clinical trial design and patient enrollment rates;
- significant and changing government regulation and regulatory guidance;
- the timing and receipt of any marketing approvals; and
- the expense of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights.

A change in the outcome of any of these variables with respect to the development of a product candidate could mean a significant change in the costs and timing associated with the development of that product candidate. For example, if the FDA, or another regulatory authority were to have required us to conduct clinical trials beyond those that we anticipated would be required for the completion of clinical development of a product candidate, or if we experienced significant trial delays due to patient enrollment or other reasons, we would have been required to expend significant additional financial resources and time on the completion of clinical development.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and other related costs, including stock-based compensation, for personnel in our executive, finance and corporate and administrative functions. General and administrative expenses are comprised of professional fees associated with being a public company including costs of accounting, auditing, legal, regulatory, tax and consulting services associated with maintaining compliance with exchange listing and SEC requirements, director and officer insurance costs; and both public and investor relations costs. General and administrative expenses also include legal fees relating to patent and corporate matters; other insurance costs; travel expenses; and facility-related expenses, which include direct depreciation costs and allocated expenses for rent and maintenance of facilities and other operating costs.

Our general and administrative expenses decreased in the first quarter of 2023 and we expect our general and administrative expenses will continue to decrease as a result of our February 2023 decision to discontinue development of ALRN-6924 and the related reduction in workforce. Our future general and administrative expenses will be significantly dependent on the outcome of our strategic process.

Restructuring Costs

Restructuring-related charges are comprised of one-time termination costs in connection with the reduction-in-workforce, including severance, benefits, and related costs.

Interest Income

Interest income consists of interest income earned on our cash, cash equivalents and investments. Historically, our interest income had not been significant due to low investment balances and low interest earned on those balances. We anticipate that our interest income will fluctuate in the future in response to our cash, cash equivalents and investments, and the interest rate environment.

Other Income, net

Other income, net consists of gains or losses recognized from non-routine items such as accretion on investments, and gains or losses recognized from foreign currency transactions, and the disposal of fixed assets.

Results of Operations

Comparison of the Three Months Ended March 31, 2023 and 2022

The following table summarizes our results of operations for the three months ended March 31, 2023 and 2022:

	Three Months Ended March 31,		Increase (Decrease)
	2023	2022	
	(in thousands)		
Revenue	$ —	$ —	$ —
Operating expenses:			
Research and development	1,810	5,893	(4,083)
General and administrative	2,179	2,528	(349)
Restructuring and Other Costs	1,022	—	1,022
Total operating expenses	5,011	8,421	(3,410)
Loss from operations	(5,011)	(8,421)	3,410
Interest income	55	21	34
Other income (expense), net	177	(22)	199
Net loss	$ (4,779)	$ (8,422)	$ 3,643

Research and Development Expenses

Research and development expenses for the three months ended March 31, 2023 were $1.8 million, compared to $5.9 million for the three months ended March 31, 2022. The decrease of $4.1 million in research and development spending was primarily a result of reduced spending of $2.3 million for our completed Phase 1b NSCLC trial, $0.9 million for ALRN-6924 manufacturing costs, $0.6 million for our completed healthy volunteer study, and decreased employee and related expenses, offset by $0.4 million of increased spending for our terminated Phase 1b breast cancer trial.

General and Administrative Expenses

General and administrative expenses were $2.2 million for the three months ended March 31, 2023, compared to $2.5 million for the three months ended March 31, 2022. The decrease of $0.3 million in general and administrative expenses was primarily the result of lower headcount costs during the first quarter of 2023 as compared to the first quarter of 2022.

Restructuring and Other Costs

Restructuring-related charges were $1.0 million for the three months ended March 31, 2023. Restructuring-related charges were comprised of one-time termination costs in connection with the reduction-in-workforce, including severance, benefits, and related costs..

Interest Income

Interest income for the three months ended March 31, 2023 and 2022 was less than $0.1 million. We anticipate that our interest income will fluctuate in the future in response to our then-current cash, cash equivalents and investments, and then-current interest rates.

Other Income (Expense), net

Other income, net for the three months ended March 31, 2023 was $0.2 million, compared to other expense of less than $0.1 million for the three months ended March 31, 2022. Other income, net, in the three months ended March 31, 2023 was primarily driven by fluctuations in foreign currency exchange rates and accretion of our investments.

Liquidity and Capital Resources

Since our inception, we have incurred significant losses on an aggregate basis. We have not commercialized any product candidate, and as we do not have any product candidates under development, we do not expect to generate revenue from sales of any products. We have financed our operations through sales of common stock in our initial public offering and follow-on public offerings, sales of common stock and warrants in a private placement, sales of common stock in "at-the-market" offerings, sales of common stock under our equity line with Lincoln Park Capital LLC, or LPC, sales of preferred stock prior to our initial public offering and payments received under a collaboration agreement. As of March 31, 2023, we had cash, cash equivalents and investments of $16.7 million.

Public Offerings

On April 2, 2019, we issued and sold in a private placement an aggregate of (i) 591,922 units, consisting of 591,922 shares of our common stock and associated warrants, or the common warrants, to purchase an aggregate of 591,922 shares of common stock, for a combined price of $40.20 per unit and (ii) 54,837 units, consisting of (a) pre-funded warrants to purchase 54,837 shares of our common stock and (b) associated common warrants to purchase 54,837 shares of common stock, for a combined price of $40.20 per unit. The pre-funded warrants had an exercise price of $0.20 per share and had no expiration. The common warrants are exercisable at an exercise price of $40.00 per share and expire in April 2024. The securities were sold pursuant to a securities purchase agreement entered into with accredited investors on March 28, 2019. We received aggregate gross proceeds from the private placement of approximately $26.0 million before deducting placement agent fees and offering expenses of approximately $2.2 million and excluding the exercise of any warrants. In July 2019, all outstanding pre-funded warrants were exercised for 54,837 shares of common stock.

In January 2021, we issued and sold an aggregate of 1,631,549 shares of common stock in a registered direct offering at a purchase price per share of $22.00. The aggregate gross proceeds of the registered direct offering were $35.9 million, before deducting fees payable to the placement agent and other estimated offering expenses payable by us of approximately $2.9 million.

At-the-Market Offering

In July 2019, we entered into a Sales Agreement with JonesTrading Institutional Services LLC, or JonesTrading, under which we were able to issue and sell shares of common stock, having an aggregate offering price of up to $15.0 million, or the Prior Sales Agreement. During the year ended December 31, 2020, we issued and sold an aggregate of 208,044 shares of common stock pursuant to the Prior Sales Agreement for gross proceeds of $4.0 million, before deducting commissions and fees. Between January 1, 2021 and January 28, 2021, we sold an additional 358,749 shares of common stock pursuant to the Prior Sales Agreement for gross proceeds of $9.7 million, before deducting commissions and fees. We terminated the Prior Sales Agreement in January 2021.

In January 2021, we entered into a Capital on Demand Sales Agreement, or the ATM Sales Agreement, with JonesTrading Institutional Services LLC, or JonesTrading, and William Blair & Company, L.L.C., or William Blair, as agents, under which we may issue and sell shares of common stock, having an aggregate offering price of up to $30.0 million. Sales of common stock through JonesTrading and William Blair may be made by any method that is deemed an "at the market" offering as defined in Rule 415(a)(4) under the Securities Act of 1933, as amended. We are not obligated to make any sales of common stock under the ATM Sales Agreement. Pursuant to a prospectus relating to the ATM Sales Agreement we filed with the SEC on June 21, 2022, we may offer and sell shares of our common stock having an aggregate offering price of up to $14.0 million under the ATM Sales Agreement. There were no sales under the ATM Sales Agreement during the three months ended March 31, 2023, or the year ended December 31, 2022.

Equity Line Financing

On September 21, 2020, we entered into a purchase agreement, or the Purchase Agreement, with LPC for an equity line financing. The Purchase Agreement provides that, subject to the terms and conditions set forth therein, we have the right, but not the obligation, to sell to LPC, and LPC is obligated to purchase up to $15.0 million of shares of common stock at our sole discretion, over a 36-month period that commenced in October 2020. We filed a registration statement on Form S-1 covering the sale of shares of common stock that are issued to LPC under the Purchase Agreement, which was declared effective on October 15, 2020.

Upon entering into the Purchase Agreement, we issued and sold 18,382 shares of common stock, or the Initial Purchase Shares, to LPC at a price per share of $27.20, or $0.5 million, which is part of the $15.0 million of shares of common stock that we may sell to LPC under the Purchase Agreement. Additionally, we issued to LPC as a commitment fee of 11,029 shares of common stock as consideration for LPC entering into the Purchase Agreement.

Under the Purchase Agreement, we may, at our discretion, direct LPC to purchase on any single business day, or a Regular Purchase, up to (i) 12,500 shares of common stock if the closing sale price of our common stock is not below $30.00 per share on Nasdaq, (ii) 10,000 shares of common stock if the closing sale price of our common stock is not below $20.00 per share on Nasdaq or (iii) 7,500 shares of common stock if the closing sale price of our common stock is below $20.00 per share on Nasdaq. In any case, LPC's commitment in any single Regular Purchase may not exceed $1.0 million. The foregoing share amounts and per share prices will be adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction.

The purchase price per share for each such Regular Purchase will be based on prevailing market prices of our common stock immediately preceding the time of sale as computed under the Purchase Agreement. Under the Purchase Agreement, we may not effect any sales of shares of common stock on any purchase date that the closing sale price of our common stock on Nasdaq is less than the floor price of $6.00 per share, which will be adjusted for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction. As of the date of this Quarterly Report on Form 10-Q, the closing sale price of our common stock on Nasdaq is less than the floor price of $6.00 per share under the Purchase Agreement. As a result, we cannot issue and sell shares of our common stock to LPC under the Purchase Agreement, and we do not expect to be able to do so for the foreseeable future.

In addition to Regular Purchases, we may also direct LPC to purchase other amounts as accelerated purchases or as additional accelerated purchases on the terms and subject to the conditions set forth in the Purchase Agreement.

The net proceeds under the Purchase Agreement to us will depend on the frequency of sales and the number of shares sold to LPC and prices at which we sell shares to LPC.

The Purchase Agreement contains customary representations, warranties, covenants, indemnification and termination provisions. LPC has covenanted not to cause or engage in any manner whatsoever, any direct or indirect short selling or hedging of our common stock. There are no limitations on use of proceeds, financial or business covenants, restrictions on future financings (other than restrictions on our ability to enter into additional "equity line" or a substantially similar transaction whereby a specific investor is irrevocably bound pursuant to an agreement with us to purchase securities over a period of time from us at a price based on the market price of the common stock at the time of such purchase), rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement. The Purchase Agreement may be terminated by us at any time, at our sole discretion, without any cost or penalty. During any "event of default" under the Purchase Agreement, LPC does not have the right to terminate the Purchase Agreement; however, we may not initiate any purchase of shares by LPC until such event of default is cured. There were no sales under the Purchase Agreement during the three months ended March 31, 2023, or the year ended December 31, 2022.

Cash Flows

The following table summarizes our sources and uses of cash for each of the periods presented:

	Three Months Ended March 31,	
	2023	2022
	(in thousands)	
Cash used in operating activities	$ (4,661)	$ (7,800)
Cash provided by investing activities	7,250	11,649
Cash provided by financing activities	—	—
Net increase in cash, cash equivalents and restricted cash	$ 2,589	$ 3,849

Operating Activities.

During the three months ended March 31, 2023, operating activities used $4.7 million of cash, resulting primarily from our net loss of $4.8 million. During the three months ended March 31, 2022 operating activities used $7.8 million of cash, resulting primarily from our net loss of $8.4 million, partially offset by $0.7 million in non-cash expenses.

Investing Activities.

During the three months ended March 31, 2023, investing activities provided $7.3 million of cash resulting from $7.3 million of proceeds from the sale of investments. During the three months ended March 31, 2022, investing activities provided $11.6 million of cash resulting primarily from $16.4 million of proceeds from the sale of investments, partially offset by purchases of $4.7 million of investments.

Financing Activities.

During the three months ended March 31, 2023 and 2022, net cash provided by financing activities was $0 million.

Funding Requirements

Our operating expenses decreased in the first quarter of 2023 and we expect our operating expenses will continue to decrease as a result of our February 2023 decision to discontinue development of ALRN-6924 and implement a reduction in workforce. However, we may not realize, in full or in part, the anticipated benefits and savings in operating expenses from these decisions due to unforeseen difficulties, delays or unexpected costs.

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

- whether we realize the anticipated cost savings in connection with our February 2023 workforce reduction;
- our ability to consummate a strategic transaction and the nature and type of such transaction;
- the time and costs necessary to close out our Phase 1b breast cancer trial; and
- the costs associated with operating as a public company.

If we continued to pursue development of ALRN-6924, our capital requirements would have depended on many factors, including:

- the scope, progress, results and costs of our preclinical studies, CMC, and clinical trials;
- the costs, timing and outcome of regulatory review of ALRN-6924;
- our ability to establish and maintain collaborations with third parties on favorable terms, if at all;
- the success of any collaborations that we may have entered into with third parties;
- the extent to which we acquired or invested in businesses, products and technologies, including entering into licensing or collaboration arrangements for ALRN-6924, although we currently have no commitments or agreements to complete any such transactions;
- the costs and timing of commercialization activities, including drug sales, marketing, manufacturing and distribution, for any product candidates for which we may have received marketing approval; and
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims.

Until such time, if ever, as we can generate substantial revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, or other third-party funding. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interests of existing stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of existing stockholders. Debt financing, if available, may involve agreements that include liens or other restrictive covenants limiting our ability to take specific actions, such as incurring additional debt, making capital expenditures, or declaring dividends.

There can be no assurance that a strategic transaction will be completed and our board of directors may decide to pursue a dissolution and liquidation. In such an event, the amount of cash available for distribution to our stockholders will depend heavily on the timing of such decision and, as with the passage of time the amount of cash available for distribution will be reduced as we continue to fund our operations. In addition, if our board of directors were to approve and recommend, and our stockholders were to approve, a dissolution and liquidation, we would be required under Delaware corporate law to pay our outstanding obligations, as well as to make reasonable provision for contingent and unknown obligations, prior to making any distributions in liquidation to our stockholders. As a result of this requirement, a portion of our assets may need to be reserved pending the resolution of such obligations and the timing of any such resolution is uncertain. In addition, we may be subject to litigation or other claims related to a dissolution and liquidation. If a dissolution and liquidation were pursued, our board of directors, in consultation with our advisors, would need to evaluate these matters and make a determination about a reasonable amount to reserve. Accordingly, holders of our common stock could lose all or a significant portion of their investment in the event of a liquidation, dissolution or winding up. Due to the inherent uncertainty in the timing and cost of these potential strategic alternatives, including their impact on our cash consumption, we have concluded that as of the date of this Quarterly Report on Form 10-Q there is substantial doubt about our ability to continue as a going concern.

If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate our strategic process and we may consider seeking protection under the bankruptcy laws in order to continue to pursue potential strategic alternatives. If we decide to seek protection under the bankruptcy laws, we would expect that we would file for bankruptcy at a time that is earlier than when we would otherwise exhaust our cash resources. If we decide to dissolve and liquidate our assets or to seek protection under the bankruptcy laws, it is unclear to what extent we will be able to pay our obligations, and, it is further unclear whether and to what extent any resources will be available for distributions to stockholders.

Critical Accounting Policies and Use of Estimates

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

During the three months ended March 31, 2023, there were no material changes to our critical accounting policies. For further information, refer to our summary of significant accounting policies and estimates in our Annual Report on Form 10-K for the year ended December 31, 2022 as filed with the SEC on March 20, 2023.

Accordingly, we believe the policies set forth above are critical to fully understanding and evaluating our financial condition and results of operations. If actual results or events differ materially from the estimates, judgments and assumptions used by us in applying these policies, our reported financial condition and results of operations could be materially affected.

Emerging Growth Company Status

Prior to December 31, 2022, we qualified as an "emerging growth company" as defined in Section 101 of The Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We ceased to qualify as an emerging growth company as of December 31, 2022, and are now subject to Section 14A(a) and (b) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, beginning with our fiscal year starting January 1, 2023. However, notwithstanding the loss of our status as an emerging growth company, we will continue to be exempt from Section 404(b) of the Sarbanes-Oxley Act of 2002 for so long as we are neither a "large accelerated filer" nor an "accelerated filer" as those terms are defined in Rule 12b-2 under the Exchange Act.

We are a "smaller reporting company" as defined in Rule 12b-2 under the Exchange Act. We may continue to be a smaller reporting company if either (i) the market value of our shares held by non-affiliates is less than $250 million or (ii) our annual revenue was less than $100 million during the most recently completed fiscal year and the market value of our shares held by non-affiliates is less than $700 million. For so long as we continue to be a smaller reporting company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We are a smaller reporting company, as defined in Rule 12b-2 under the Exchange Act for this reporting period and are not required to provide the information required under this item.

Item 4. Controls and Procedures.

Limitations on Effectiveness of Controls and Procedures

The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act refers to controls and procedures that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In

addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Interim Chief Financial Officer, evaluated, as of the end of the period covered by this Quarterly Report on Form 10-Q, the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act). Based on that evaluation, our Chief Executive Officer and Interim Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of March 31, 2023.

Changes in Internal Control Over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) has occurred during the quarter ended March 31, 2023 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

We are not currently subject to any material legal proceedings.

Item 1A. Risk Factors.

For a discussion of our risk factors, see "Part I, Item 1A-Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2022. You should carefully consider the risks included in our Annual Report on Form 10-K, together with all of the other information in this Quarterly Report on Form 10-Q, including our unaudited condensed financial statements and the related notes included elsewhere in this Quarterly Report on Form 10-Q. The occurrence of any single risk or any combination of risks could materially and adversely affect our business, financial condition, results of operations, cash flows and the trading price of our common stock.

Item 6. Exhibits.

The exhibits listed on the Exhibit Index immediately preceding such exhibits, which is incorporated herein by reference, are filed or furnished as part of this Quarterly Report on Form 10-Q.

Exhibit Number	Description
10.1	Separation and Release of Claims Agreement, dated as of April 24, 2023, between the Registrant and D. Allen Annis, Ph.D.
	Consulting Agreement, dated as of April 15, 2023, between the Registrant and D. Allen Annis, Ph.D.
10.2	
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.
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.
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.
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.
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.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

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.

Aileron Therapeutics, Inc.

Date: May 8, 2023

By: /s/ Manuel C. Alves Aivado, M.D., Ph.D.

Manuel C. Alves Aivado, M.D., Ph.D.
President and Chief Executive Officer
(principal executive officer)

Date: May 8, 2023

By: /s/ Susan L. Drexler

Susan L. Drexler
Interim Chief Financial Officer
(principal financial officer)

SEPARATION AND RELEASE OF CLAIMS AGREEMENT

This Separation and Release of Claims Agreement (the "Agreement") is made by and between Aileron Therapeutics, Inc. (the "Company"), having its principal place of business at 738 Main Street, Unit #398, Waltham, MA 02451, and D. Allen Annis, Ph.D., having an address at 38 Langdon Street, Cambridge, MA 02138 ("Executive" and, together with the Company, the "Parties").

WHEREAS, the Company and Executive are parties to an employment offer letter dated as of November 15, 2007 and a Severance Agreement dated as of November 5, 2018 (collectively, the "Employment Agreements");

WHEREAS, the Parties mutually have agreed to establish terms for Executive's separation from the Company, including, without limitation, Executive's separation, effective as of April 15, 2023 (the "Separation Date"), from employment with the Company, from Executive's position as the Company's Senior Vice President, Research, and from any and all other positions Executive held as an officer of the Company; and

WHEREAS, the Parties agree that the payments, benefits and rights set forth in this Agreement shall be the exclusive payments, benefits and rights due to Executive, and the Parties acknowledge and agree that Executive is not eligible to receive any other payments or benefits as a result of Executive's separation from the Company, including, without limitation, pursuant to the Employment Agreements.

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

1. **Accrued Obligations** – The Parties agree that Executive is entitled to receive, in accordance with the Company's regular payroll practices, all unpaid base salary earned through the Separation Date, including any amounts for accrued unused vacation time to which Executive is entitled through such date in accordance with Company policy, and reimbursement of any properly incurred and documented unreimbursed business expenses incurred through the Separation Date (together, the "Accrued Obligations"). As of the Separation Date, all salary payments from the Company ceased and any benefits Executive had as of the Separation Date under Company-provided benefit plans, programs, or practices terminated, except as required by federal or state law or as otherwise specifically set forth in this Agreement.

2. **Separation Benefits** – Provided that Executive: (i) has, effective as of the Separation Date, separated from employment with the Company, from Executive's position as Senior Vice President, Research of the Company, and from any and all other positions Executive held as an officer of the Company, (ii) signs and returns this Agreement no earlier than the Separation Date but no later than May 31, 2023, and (iii) does not revoke Executive's agreement as set forth in Section 14 below, the Company will provide Executive with the following separation benefits (the "Separation Benefits"):

    a. Severance Pay – On the Company's first regularly scheduled payroll date that follows the Agreement Effective Date (as defined below), Executive will receive severance pay in an aggregate amount equal to nine (9) months of Executive's base salary as of the Separation Date, which such payment will be paid in a lump sum on that date and will be subject to all applicable taxes and withholdings.

b. Group Health Insurance – If Executive is eligible for and timely elects to continue receiving group medical insurance coverage under the law known as COBRA, the Company shall, continuing until the earlier of (x) the expiration of the nine (9) month period following the Agreement Effective Date (the "Severance Period"), and (y) the date on which Executive becomes eligible to receive the same or substantially similar group health insurance coverage through another employer (as applicable, the "COBRA Contribution Period"), pay on Executive's behalf the portion of the monthly premiums for such coverage that it pays for active and similarly situated employees receiving the same type of coverage. The balance of such premiums during the COBRA Contribution Period, and all premium costs thereafter, shall be paid by Executive on a monthly basis during the elected period of health insurance coverage under COBRA for as long as, and to the extent that, Executive remains eligible for and elects to remain enrolled in COBRA continuation coverage. Notwithstanding the foregoing, however, the Company may, in its sole discretion, and at any time during the COBRA Contribution Period, elect to cease making monthly contributions hereunder and, instead, pay to Executive a lump sum (less applicable taxes and withholdings) equal to the amount of contributions the Company would have made hereunder between the date of such cessation and the expiration of the COBRA Contribution Period, following which lump sum payment all COBRA premium costs shall be paid by Executive for as long as, and to the extent that, Executive remains eligible for and elects to remain enrolled in COBRA continuation coverage. Executive agrees that, should Executive become eligible during the Severance Period to receive group health insurance coverage through another employer, Executive shall immediately notify the Company in writing of the date of eligibility for such coverage and the Company's obligation under this paragraph shall terminate as of such date of eligibility.

Executive is entitled to exercise only those stock options granted to Executive under the Company's 2006 Stock Incentive Plan, as amended, 2016 Stock Incentive Plan, 2017 Stock Incentive Plan and 2021 Stock Incentive Plan (collectively, the "Option Plans") that are vested through the Separation Date, and only in accordance with the terms and conditions of the applicable Option Plan, including (without limitation) those provisions regarding the time in which Executive may exercise vested options. Except for those vested options, Executive acknowledges and agrees that Executive does not now have, and will not in the future have, rights to vest in any other equity plans (of whatever name or kind, including, without limitation, any stock option or restricted stock plan) that Executive participated in or was eligible to participate in during Executive's employment with the Company.

Other than the Separation Benefits and Accrued Obligations, Executive will not be eligible for, nor shall Executive have a right to receive, any payments or benefits from the Company following the Separation Date.

It is intended that each installment of the separation payments and benefits provided under this Agreement shall be treated as a separate "payment" for purposes of Section 409A of the Internal Revenue Code of 1986, as amended, and the guidance issued thereunder ("Section 409A"). Neither the Company nor Executive shall have the right to accelerate or defer the delivery of any such payments or benefits except to the extent specifically permitted or required by Section 409A.

3. **Release of Claims** – In exchange for the consideration set forth in this Agreement, which Executive acknowledges Executive would not otherwise be entitled to receive, Executive hereby fully, forever, irrevocably and unconditionally releases, remises and discharges the Company, its affiliates, subsidiaries, parent companies, predecessors, and successors, and all of their respective past and present officers, directors, stockholders, partners, members, employees, agents, representatives, plan administrators, attorneys, insurers and fiduciaries (each in their individual and

corporate capacities) (collectively, the "Released Parties") from any and all claims, charges, complaints, demands, actions, causes of action, suits, rights, debts, sums of money, costs, accounts, reckonings, covenants, contracts, agreements, promises, doings, omissions, damages, executions, obligations, liabilities, and expenses (including attorneys' fees and costs), of every kind and nature that Executive ever had or now has against any or all of the Released Parties, whether known or unknown, including, but not limited to, any and all claims arising out of or relating to Executive's employment with and/or separation from the Company, including, but not limited to, all claims under Title VII of the Civil Rights Act of 1964, 42 U.S.C. § 2000e et seq., the Americans With Disabilities Act of 1990, 42 U.S.C. § 12101 et seq., the Age Discrimination in Employment Act, 29 U.S.C. § 621 et seq., the Genetic Information Nondiscrimination Act of 2008, 42 U.S.C. § 2000ff et seq., the Family and Medical Leave Act, 29 U.S.C. § 2601 et seq., the Worker Adjustment and Retraining Notification Act ("WARN"), 29 U.S.C. § 2101 et seq., the Rehabilitation Act of 1973, 29 U.S.C. § 701 et seq., Executive Order 11246, Executive Order 11141, the Fair Credit Reporting Act, 15 U.S.C. § 1681 et seq., and the Employee Retirement Income Security Act of 1974 ("ERISA"), 29 U.S.C. § 1001 et seq., all as amended; all claims arising out of the Massachusetts Fair Employment Practices Act, Mass. Gen. Laws ch. 151B, § 1 et seq., the Massachusetts Civil Rights Act, Mass. Gen. Laws ch. 12, §§ 11H and 11I, the Massachusetts Equal Rights Act, Mass. Gen. Laws. ch. 93, § 102, Mass. Gen. Laws ch. 214, § 1C (Massachusetts right to be free from sexual harassment law), the Massachusetts Labor and Industries Act, Mass. Gen. Laws ch. 149, § 1 et seq., Mass. Gen. Laws ch. 214, § 1B (Massachusetts right of privacy law), the Massachusetts Parental Leave Act, Mass. Gen. Laws ch. 149, § 105D, the Massachusetts Paid Family and Medical Leave Act, Mass. Gen. Laws ch. 175m, § 1, et seq., the Massachusetts Earned Sick Time Law, Mass. Gen. Laws ch. 149, § 148c, and the Massachusetts Small Necessities Leave Act, Mass. Gen. Laws ch. 149, § 52D, all as amended; all rights and claims under the Massachusetts Wage Act, Mass. Gen. Laws ch. 149, § 148 et seq., as amended (Massachusetts law regarding payment of wages and overtime), including any rights or claims thereunder to unpaid wages, including overtime, bonuses, commissions, and accrued, unused vacation time; all common law claims including, but not limited to, actions in defamation, intentional infliction of emotional distress, misrepresentation, fraud, wrongful discharge, and breach of contract (including, without limitation, all claims arising out of or related to the Employment Agreements); all claims to any non-vested ownership interest in the Company, contractual or otherwise; all state and federal whistleblower claims to the maximum extent permitted by law; and any claim or damage arising out of Executive's employment with and/or separation from the Company (including a claim for retaliation) under any common law theory or any federal, state or local statute or ordinance not expressly referenced above; provided, however, that this release of claims shall not (i) deprive Executive of any accrued benefits to which Executive has, as of the Separation Date, acquired a vested right under any employee benefit plan or policy or stock plan, or any health care continuation to the extent required by applicable law; (ii) deprive Executive of any rights Executive may have to be indemnified by the Company as provided in any agreement between the Company and Executive or pursuant to the Company's Certificate of Incorporation or by-laws or under any applicable directors' and officers' liability insurance policy maintained by the Company; provided, however, that nothing herein shall be construed as an acknowledgment or guaranty by the Company that Executive has any such rights to indemnification, nor does this Agreement create any additional rights for Executive to indemnification; (iii) apply to any claims or rights that Executive may have as a stockholder of the Company; or (iv) prevent Executive from filing a charge with, cooperating with, or participating in any investigation or proceeding before, the Equal Employment Opportunity Commission or a state fair employment practices agency (except that Executive acknowledges that he may not recover any monetary benefits in connection with any such charge, investigation, or proceeding, and Executive further waives any rights or claims to any payment, benefit, attorneys' fees or other remedial relief in connection with any such charge, investigation or proceeding).

4. **Continuing Obligations** – Executive acknowledges and reaffirms Executive's obligation to keep confidential and not to use or disclose any and all non-public information concerning the Company that Executive acquired during the course of Executive's employment with the Company, including any non-public information concerning the Company's business affairs, business prospects, and financial condition, except as otherwise permitted by Section 8 below. Further, Executive acknowledges and reaffirms all of Executive's continuing obligations to the Company as set forth in the Confidentiality, Inventions, Non-Solicitation and Non-Competition Agreement that Executive previously executed for the benefit of the Company on or about November 15, 2007 (the "Restrictive Covenants Agreement"), which remain in full force and effect and which survive Executive's separation from the Company, except for the non-competition provisions of the Restrictive Covenants Agreement, which the Company agrees shall terminate and be of no further force and effect from and after the Separation Date.

5. **Non-Disparagement** – Executive understands and agrees that, except as otherwise permitted by Section 8 below, Executive will not, in public or private, make any false, disparaging, negative, critical, adverse, derogatory or defamatory statements, whether orally or in writing, including online or otherwise, to any person or entity, including, but not limited to, any media outlet, industry group, financial institution or current or former employee, board member, consultant, client or customer of the Company, regarding the Company or any of the other Released Parties, or regarding the Company's business affairs, business prospects, or financial condition. The Company agrees to direct its executive officers (collectively, the "Executive Officers") to not, in public or private, make any false, disparaging, negative, critical, adverse, derogatory or defamatory statements, whether orally or in writing, including online or otherwise, to any person or entity, including, but not limited to, any media outlet, industry group, financial institution or current or former employee, board member, consultant, client or customer of the Company, regarding Executive; provided, however, that nothing in this Section 5 shall be construed as requiring the restriction or limitation of such Executive Officers from disclosing events or circumstances in such manner as they or the Company deem necessary to comply with or satisfy their or the Company's disclosure, reporting or other obligations under applicable law.

6. **Return of Company Property; Personal E-mail Management** – Executive confirms that Executive has returned to the Company all keys, files, records (and copies thereof), equipment (including, but not limited to, computer hardware, software, printers, flash drives and other storage devices, wireless handheld devices, cellular phones, tablets, etc.), all information about all forms of electronically stored information including information stored in digital clouds, Company identification, and any other Company owned property in Executive's possession or control, and that Executive has left intact all, and has otherwise not destroyed, deleted, or made inaccessible to the Company any, electronic Company documents, including, but not limited to, those that Executive developed or helped to develop during Executive's employment, and that Executive has not (a) retained any copies in any form or media; (b) maintained access to any copies in any form, media, or location; (c) stored any copies in any physical or electronic locations that are not readily accessible or not known to the Company or that remain accessible to Executive; or (d) sent, given, or made accessible any copies to any persons or entities that the Company has not authorized to receive such electronic or hard copies. Notwithstanding the foregoing, Executive may retain the laptop issued to Executive once the Company's information technology team has removed all Company proprietary information from such equipment.

7. **Confidentiality** – Each of the Parties understands and agrees that, except as otherwise permitted by Section 8 below, the terms of this Agreement and the contents of the negotiations and discussions resulting in this Agreement shall be maintained as confidential and shall not be disclosed except as otherwise agreed to in writing by the other Party; provided, however, that: (a)

Executive may disclose this Agreement to Executive's immediate family; (b) the Parties may disclose this Agreement in confidence to their attorneys, insurers, accountants, auditors, tax preparers, and financial advisors (provided that prior to disclosure each such individual agrees to keep such information confidential in accordance with the terms and conditions of this confidentiality provision); (c) the Parties may disclose this Agreement insofar as such disclosure may be required by law; and (d) the Company may disclose this letter agreement as reasonably necessary or advisable for a legitimate business purpose.

8. **Permitted Disclosures** – Nothing in this Agreement or elsewhere prohibits Executive from (a) communicating with government agencies about possible violations of federal, state, or local laws or otherwise providing information to government agencies, filing a complaint with government agencies, or participating in government agency investigations or proceedings or (b) making disclosures or communications to engage in protected, concerted activity or to otherwise exercise rights under Section 7 of the National Labor Relations Act. Executive is not required to notify the Company of any such communications; provided, however, that nothing herein authorizes the disclosure of information Executive obtained through a communication that was subject to the attorney-client privilege. Nothing in this Agreement limits Executive's ability to receive a whistleblower or other award from a governmental agency or entity for information provided to such an agency or entity. Further, notwithstanding Executive's confidentiality and nondisclosure obligations, Executive is hereby advised as follows pursuant to the Defend Trade Secrets Act: "An individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that (A) is made (i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual (A) files any document containing the trade secret under seal; and (B) does not disclose the trade secret, except pursuant to court order."

9. **Cooperation** – Executive agrees that, to the extent permitted by law and subject to Executive's reasonable availability, Executive shall: (i) during the Severance Period, make Executive reasonably available to the Company on an as-needed basis in connection with assisting with the orderly transfer of Executive's work to other employees, following reasonable notice by the Company and without receiving any compensation in addition to the Severance Benefits (it being acknowledged by Executive that a condition of the Company's provision of the Separation Benefits described above is Executive's provision of such assistance), and (ii) assist the Company and its Affiliated Entities (as defined in the Severance Agreement) in the defense of any claims, or potential claims that may be made or are threatened to be made against any of them in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "Proceeding"), and will assist the Company and the Affiliated Entities in the prosecution of any claims that may be made by the Company or the Affiliated Entities in any Proceeding, to the extent that such claims may relate to Executive's employment or the period of Executive's employment by the Company. The Company agrees to (x) reimburse Executive for all of Executive's reasonable out-of-pocket expenses associated with such assistance, including travel expenses and (y) compensate Executive on an hourly basis, based on a rate commensurate with Executive's base salary (assuming a forty (40) hour work week) in effect on the Separation Date, for time Executive spends in excess of ten (10) hours in any calendar quarter providing such assistance to the Company, provided that such time shall not include any time spent testifying in any arbitration, trial, administrative hearing or other proceeding. Any amounts to be paid to Executive pursuant to this Section shall be paid by the Company no later than thirty (30) days of the date on which Executive provides documentation to

the Company that such expenses were incurred. Executive's reasonable assistance in connection with subsection (ii) hereunder shall include, but not be limited to, being available to meet with the Company's counsel, at reasonable times and locations designated by the Company, to investigate or prepare the Company's claims or defenses, to prepare for trial or discovery or an administrative hearing, mediation, arbitration or other proceeding, to provide any relevant information in Executive's possession, and to act as a witness when requested by the Company. Executive further agrees that, to the extent permitted by law, Executive will notify the Company promptly in the event that Executive is served with a subpoena (other than a subpoena issued by a government agency), or in the event that Executive is asked to provide a third party (other than a government agency) with information concerning any actual or potential complaint or claim against the Company.

10. **Amendment and Waiver** – This Agreement shall be binding upon the Parties and may not be modified in any manner, except by an instrument in writing of concurrent or subsequent date signed by duly authorized representatives of the Parties. This Agreement is binding upon and shall inure to the benefit of the Parties and their respective agents, assigns, heirs, executors/administrators/personal representatives, and successors. No delay or omission by the Company in exercising any right under this Agreement shall operate as a waiver of that or any other right. A waiver or consent given by the Company on any one occasion shall be effective only in that instance and shall not be construed as a bar to or waiver of any right on any other occasion.

11. **Validity** – Should any provision of this Agreement be declared or be determined by any court of competent jurisdiction to be illegal or invalid, the validity of the remaining parts, terms or provisions shall not be affected thereby and said illegal or invalid part, term or provision shall be deemed not to be a part of this Agreement.

12. **Nature of Agreement –** Both Parties understand and agree that this Agreement is a separation agreement and does not constitute an admission of liability or wrongdoing on the part of the Company or Executive.

13. **Business Expenses; Final Compensation** – Executive acknowledges that Executive has been reimbursed by the Company for all business expenses incurred in conjunction with the performance of Executive's employment and that no other reimbursements are owed to him. Executive further acknowledges that Executive has received all compensation due to Executive from the Company, including, but not limited to, all wages, bonuses and accrued, unused vacation time, and that Executive is not eligible or entitled to receive any additional payments or consideration from the Company beyond that provided for in Section 2.

14. **Time for Consideration and Revocation –** Executive acknowledges that Executive was initially presented with this Agreement on or before the Separation Date (as applicable, the "Receipt Date"). Executive understands that this Agreement shall be of no force or effect unless Executive (a) signs and returns this Agreement on or before May 31, 2023 (but no earlier than the Separation Date), and (b) does not revoke this Agreement in writing during the seven (7) day period after Executive has signed the Agreement (the "Revocation Period"). If Executive does not so revoke Executive's agreement, this Agreement shall become effective and enforceable on the date following the expiration of the Revocation Period (the "Agreement Effective Date").

15. **Eligibility for Severance Program** – Attached to this Agreement as Attachment A is a description of (i) any class, unit or group of individuals covered by the program of severance benefits which the Company has offered to Executive, and any applicable time limits regarding such severance benefit program; and (ii) the job title and ages of all individuals eligible or selected for such

severance benefit program, and the ages of all individuals in the same job classification or organizational unit who are not eligible or who were not selected for such severance benefit program.

16. **Acknowledgments –** Executive acknowledges that Executive has been given at least forty-five (45) days from the Receipt Date to consider this Agreement (the "Consideration Period") and that the Company is hereby advising Executive to consult with an attorney of Executive's own choosing for the purpose of reviewing the terms of this Agreement, including the rights waived in this Agreement, prior to signing this Agreement. Executive further acknowledges and agrees that any changes made to this Agreement following Executive's initial receipt of this Agreement on the Receipt Date, whether material or immaterial, shall not re-start or affect in any manner the Consideration Period. Executive understands that Executive may revoke this Agreement for a period of seven (7) days after Executive signs it by notifying the Company in writing, and that this Agreement shall not be effective or enforceable until the expiration of the seven (7) day revocation period. Executive understands and agrees that by entering into this Agreement Executive is waiving any and all rights or claims Executive might have under the Age Discrimination in Employment Act, as amended by the Older Workers Benefit Protection Act, and that Executive has received consideration beyond that to which Executive was previously entitled.

17. **Voluntary Assent –** Executive affirms that no other promises or agreements of any kind have been made to or with Executive by any person or entity whatsoever to cause Executive to sign this Agreement. Executive acknowledges that that Executive has carefully read this Agreement and is fully aware of its contents and legal effect, including the waiver of any legal claims, understands the meaning and intent of this Agreement, and is voluntarily entering this Agreement. Executive further affirms that Executive was advised to consult with counsel of Executive's own choosing prior to accepting this Agreement. Executive states and represents that Executive has carefully read this Agreement, understands the contents herein, freely and voluntarily assents to all of the terms and conditions hereof, and signs Executive's name of Executive's own free act.

18. **Governing Law** – This Agreement shall be interpreted and construed by the laws of the Commonwealth of Massachusetts, without regard to conflict of laws provisions. Executive hereby irrevocably submits to and acknowledges and recognizes the jurisdiction of the courts of the Commonwealth of Massachusetts, or if appropriate, a federal court located in the Commonwealth of Massachusetts (which courts, for purposes of this letter agreement, are the only courts of competent jurisdiction), over any suit, action or other proceeding arising out of, under or in connection with this Agreement or the subject matter hereof.

19. **Entire Agreement** – This Agreement contains and constitutes the entire understanding and agreement between the Parties hereto with respect to Executive's separation from the Company, separation benefits and the settlement of claims against the Company, and cancels all previous oral and written negotiations, agreements, commitments and writings in connection therewith; provided, however, that nothing in this Section 19 supersedes Section 4 above or the Restrictive Covenants Agreement referenced therein.

20. **Tax Acknowledgement** – In connection with the Separation Benefits provided to Executive pursuant to this Agreement, the Company shall withhold and remit to the tax authorities the amounts required under applicable law, and Executive shall be responsible for all applicable taxes owed by Executive with respect to such Separation Benefits under applicable law. Executive acknowledges that Executive is not relying upon the advice or representation of the Company with respect to the tax treatment of any of the Separation Benefits set forth in this Agreement. Executive

further acknowledges and agrees that the Company is not making any representations or warranties to Executive and shall have no liability to Executive or any other person if any provisions of or payments and benefits provided under this Agreement are determined to constitute deferred compensation subject to Section 409A but not to satisfy an exemption from, or the conditions of, that section.

21. **Counterparts** – This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement. Facsimile and PDF signatures shall be deemed to be of equal force and effect as originals.

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, the Parties have set their hands and seals to this Agreement as of the date(s) written below.

AILERON THERAPEUTICS, INC.

By: /s/ Manuel C. Alves Aivado, M.D., Ph.D. Date: 24 April 2023
Name: Manuel C. Alves Aivado, M.D., Ph.D.
Title: President and Chief Executive Officer

EXECUTIVE

/s/ D. Allen Annis, Ph.D. Date: 24 April 2023
D. Allen Annis, Ph.D.

ATTACHMENT A

OLDER WORKERS BENEFIT PROTECTION ACT
NOTICE TO EMPLOYEES

As a result of the Company's failed clinical trial necessitating the elimination of nearly all positions as Company looks to reduce costs and expenses as it explores strategic alternatives, your employment with the Company is being terminated and you have been selected to receive an offer of severance benefits in exchange for signing a release and waiver of claims. In selecting employees for termination and eligibility for this severance program, the Company considered retaining only those employees needed to assist the Company with the exploration of strategic alternatives. In connection with this severance program, you are being provided with information as to: (i) any class, unit or group of individuals terminated and covered by such program, any eligibility factors for such termination and, therefore, eligibility for such program, and any time limits applicable to such program; and (ii) the job title and ages of all individuals terminated and, therefore, eligible or selected for the program, and the job titles and ages of all individuals in the same job classification or organizational unit who are not terminated and, therefore, are not eligible or selected for the program.

The Company determined that all employees in the classes, units or departments in the chart below would be eligible for the severance program. All employees who are being terminated in connection with this reduction in force have been selected for the program and their job titles and ages have been indicated in the chart below. The job titles and ages of employees who were not selected for the program are also indicated in the below chart.

Employees who were selected and are age forty and over shall have at least forty-five (45) days to consider the Company's severance offer and may revoke their agreement to participate in the severance program within seven (7) days of their execution of such an agreement. Employees who were selected and are under age forty shall have at least seven (7) days to consider the Company's severance offer and do not have a right of revocation.

Class/Unit/Department	Employee Title	Age on Separation Date	Selected	Not Selected
R&D	Senior Vice President, Research	50	X	
Clinical Operations	Vice President, Clinical Development	53	X	
Clinical Operations	Vice President of Clinical Operations and Program Management	52	X	
Clinical Operations	Executive Director, Clinical Operations	45	X	
Clinical Operations	Associate Director of Clinical Operations	43	X	
Finance	Analyst	27	X	
Executive	President and Chief Executive Officer	52		X
Finance	Controller	36		X
Finance	Analyst	23		X

CONSULTING AGREEMENT

THIS CONSULTING AGREEMENT (the "Agreement") is entered into as of April 15, 2023 by and between Aileron Therapeutics, Inc. (the "Company"), and D. Allen Annis, Ph.D. ("Dr. Annis" and, together with the Company, each a "Party" and collectively, the "Parties").

WHEREAS, Dr. Annis has served as the Senior Vice President, Research of the Company and Dr. Annis' last date of employment with the Company will be April 15, 2023 (the "Separation Date");

WHEREAS, the Company desires to engage Dr. Annis as a consultant to the Company immediately following the Separation Date; and

WHEREAS, Dr. Annis has agreed to provide such services pursuant to the terms and conditions set forth in this Agreement.

NOW, THEREFORE in consideration of the mutual covenants and promises contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the Parties hereto, the Parties agree as follows:

1. **Services To Be Performed**. Commencing upon April 16, 2023 (the "Effective Date") and continuing for the duration of the Consultation Period (as defined below), Dr. Annis agrees to perform such consulting, advisory and related services to and for the Company as may be reasonably requested from time to time by the Company (the "Services"). Dr. Annis agrees to use his best efforts in the performance of the Services and agrees to cooperate with the Company's personnel, not to interfere with the conduct of the Company's business, and to observe all Company rules, policies, regulations and security requirements with respect to the safety and safeguarding of persons and property. Dr. Annis agrees and affirms that he will not contact any person or entity on behalf of the Company unless specifically authorized to do so in writing (including electronic mail) by the Company's Chief Executive Officer.

2. **Term**. This Agreement shall commence upon the Effective Date and shall continue until October 16, 2023 (such period, as it may be extended upon mutual agreement of the Parties, being referred to as the "Consultation Period"), unless sooner terminated in accordance with the provisions of Section 5.

3. **Consulting Benefits**. The Company will provide Dr. Annis with the payments and benefits set forth below during the Consultation Period (the "Consulting Benefits").

a. Cash Compensation. The Company shall pay to Dr. Annis consulting fees in the amount of $500.00 per hour during the Consulting Period, provided, however, that Dr. Annis will not incur more than 10 hours of Services in a one (1) month period without the prior written consent of the Company (which consent may be given by electronic mail). Payment for any partial period shall be prorated. Dr. Annis shall submit invoices to the Company on a monthly basis during the Consulting Period for the consulting fees, unless otherwise agreed by Dr. Annis and the Company. The Company shall pay to Dr. Annis the amounts shown on each such

invoice within 30 days after receipt thereof. Dr. Annis and the Company may adjust the consulting fees and time commitments as needed by mutual written agreement.

b. Discretionary Cash Bonus Award. In recognition of the Services that Dr. Annis provides to the Company pursuant to this Agreement during the Consultation Period, Dr. Annis shall be eligible to receive a cash bonus award, the amount and timing of which will be determined in the sole discretion of the Compensation Committee of the Company's Board of Directors; provided, however, that in no event shall such discretionary cash bonus exceed the amount of $50,000.

c. Stock Options. For the avoidance of doubt, all outstanding stock option awards granted to Dr. Annis under the Company's 2006 Stock Incentive Plan (as amended), 2016 Stock Incentive Plan, 2017 Stock Incentive Plan and 2021 Stock Incentive Plan (collectively, the "Plans") as of the Separation Date (the "Options") shall continue to vest during the Consultation Period in accordance with, and subject to, the terms of such Options and the Plans. Dr. Annis understands that the Options cease to be treated for tax purposes as incentive stock options. Dr. Annis' right to exercise the portion of the Options that (a) are vested as of the Separation Date or (b) which vest during the Consultation Period will terminate three months after the date Dr. Annis ceases to be an "Eligible Participant" (as defined in the option agreements evidencing the Options), provided that any vested Options may not be exercised after the Final Exercise Date (as defined in the option agreements evidencing the Options) or at all if, under the terms of the Options, Dr. Annis' rights to exercise the Options would have otherwise terminated immediately.

d. Reimbursement of Expenses. The Company shall reimburse Dr. Annis for all reasonable, necessary and approved travel expenses incurred or paid by Dr. Annis in connection with, or related to, the performance of the Services under this Agreement. Dr. Annis shall submit to the Company itemized monthly statements, in a form satisfactory to the Company, of such expenses incurred in the previous month. The Company shall pay to Dr. Annis approved amounts shown on each such statement within 30 days after receipt thereof. Notwithstanding the foregoing, Dr. Annis shall not incur total expenses in excess of $100.00 per month without the prior written approval of the Company.

e. No Additional Consulting Benefits. Dr. Annis agrees that he shall provide the Services in exchange for the Consulting Benefits described in this Section 3 and that he is not entitled to any benefits, coverages or privileges, including, without limitation, social security, unemployment, medical or pension payments, made available to employees of the Company or any other consideration or benefits from the Company for the performance of the Services.

4. **Independent Contractor**. It is the express intention of the Parties that Dr. Annis shall be an independent contractor and not an employee, agent, joint venturer or partner of the Company for any purposes whatsoever.

a. Performance of Services. Dr. Annis shall have the right to control and determine the methods, manner and means of performing the Services. In performing the Services, the amount of time devoted by Dr. Annis on any given day will be entirely within Dr. Annis' control, and the Company will rely on Dr. Annis to put in the amount of time as is

necessary to fulfill the requirements of this Agreement. However, the Services contemplated by this Agreement must meet the Company's standards and approval and shall be subject to the Company's general right of inspection and supervision to secure their satisfactory completion. Dr. Annis will provide all equipment and supplies required to perform the Services.

b. Non-Exclusivity. Dr. Annis retains the right to contract with other companies or entities for full or part time employment or consulting services, without restriction, provided, however, that Dr. Annis remains in compliance with the terms of the Confidentiality, Inventions, Non-Solicitation and Non-Competition Agreement that Dr. Annis previously executed for the benefit of the Company on or about November 15, 2007 and which remains in full force and effect (the "Restrictive Covenant Agreement"), except for the non-competition provisions of the Restrictive Covenants Agreement, which the Company agrees shall terminate and be of no further force and effect from and after the Separation Date. Likewise, the Company retains a reciprocal right to contract with other companies and/or individuals for consulting services without restriction.

c. Scope of Authority. Dr. Annis is not authorized to transact business, incur obligations, sell goods, receive payments, solicit orders or assign or create any obligation of any kind, express or implied, on behalf of the Company or any of the Company's related or affiliated entities, or to bind in any way whatsoever, or to make any promise, warranty or representation on behalf of the Company or any of the Company's related or affiliated entities with respect to any matter, without the prior written approval of the Company. Dr. Annis shall not use the Company's trade names, trademarks, service names or service marks without the prior written approval of the Company.

5. **Termination**. This Agreement may be terminated in the following manner: (a) at any time upon the mutual written consent of the Parties hereto; (b) by Dr. Annis at any time immediately upon written notice if the Company has materially breached this Agreement; (c) by the Company or Dr. Annis upon not less than fifteen (15) days' prior written notice to the other Party for any reason; or (d) by the Company for Cause (as defined below), upon written notice delivered to Dr. Annis. For the purposes of this Agreement, "Cause" shall mean (i) any failure of Dr. Annis to comply with the terms and obligations of this Agreement, including but not limited to the scope of Services to be provided; (ii) Dr. Annis' willful engagement in illegal conduct or gross misconduct that is materially injurious to the Company; (iii) fraud upon the Company including, without limitation, falsification of Company records; (iv) interference by Dr. Annis with the conduct of the Company's business; (v) Dr. Annis' breach of any of the provisions of the Restrictive Covenant Agreement; and (vi) Dr. Annis' failure to timely sign the Separation and Release of Claims Agreement offered to Dr. Annis by the Company in connection with Dr. Annis' separation from employment (the "Separation Agreement"), or Dr. Annis' revocation of such Separation Agreement, or Dr. Annis' breach of any provisions of such Separation Agreement. In the event of any termination, Dr. Annis shall be entitled only to fees for services provided prior to termination in accordance with Section 3(a) and reimbursements for expenses incurred prior to termination in accordance with Section 3(d), and no further cash payments of any kind will be due.

6. **Proprietary Information and Inventions**.

6.1 Proprietary Information.

a. Dr. Annis acknowledges that his relationship with the Company is one of high trust and confidence and that in the course of his service to the Company, Dr. Annis will continue to have access to and contact with Proprietary Information (as defined below). Dr. Annis will not disclose any Proprietary Information to any person or entity other than employees of the Company or use the same for any purposes (other than in the performance of the Services) without written approval by an officer of the Company, either during or after the Consultation Period, unless and until such Proprietary Information has become public knowledge without fault by Dr. Annis.

b. For purposes of this Agreement, Proprietary Information shall mean, by way of illustration and not limitation, all information, whether or not in writing, whether or not patentable and whether or not copyrightable, of a private, secret or confidential nature, owned, possessed or used by the Company, concerning the Company's business, business relationships or financial affairs, including, without limitation, any Invention, formula, vendor information, customer information, apparatus, equipment, trade secret, process, research, report, technical or research data, clinical data, know-how, computer program, software, software documentation, hardware design, technology, product, processes, methods, techniques, formulas, compounds, projects, developments, marketing or business plan, forecast, unpublished financial statement, budget, license, price, cost, customer, supplier or personnel information or employee list that is communicated to, learned of, developed or otherwise acquired by Dr. Annis in the course of his performance as a consultant to the Company.

c. Dr. Annis agrees that all files, documents, letters, memoranda, reports, records, data sketches, drawings, models, laboratory notebooks, program listings, computer equipment or devices, computer programs or other written, photographic, or other tangible material containing Proprietary Information, whether created by Dr. Annis or others, which shall come into Dr. Annis' custody or possession, shall be and are the exclusive property of the Company to be used by Dr. Annis only in the performance of his duties for the Company and shall not be copied or removed from the Company premises except in the pursuit of the business of the Company. All such materials or copies thereof and all tangible property of the Company in the custody or possession of Dr. Annis shall be delivered to the Company, upon the earlier of (i) a request by the Company or (ii) the termination of this Agreement. After such delivery, Dr. Annis shall not retain any such materials or copies thereof or any such tangible property.

d. Dr. Annis agrees that his obligation not to disclose or to use information and materials of the types set forth in paragraphs (b) and (c) above, and Dr. Annis' obligation to return materials and tangible property set forth in paragraph (c) above extends to such types of information, materials and tangible property of customers of the Company or suppliers to the Company or other third parties who may have disclosed or entrusted the same to the Company or to Dr. Annis.

e. Dr. Annis acknowledges that the Company from time to time may have agreements with other persons or with the United States Government, or agencies thereof, that impose obligations or restrictions on the Company regarding inventions made during the course of work under such agreements or regarding the confidential nature of such work. Dr. Annis

agrees to be bound by all such obligations and restrictions that are known to Dr. Annis and to take all action necessary to discharge the obligations of the Company under such agreements.

f. Dr. Annis' obligations under this Section 6.1 shall not apply to any information that (i) is or becomes known to the general public under circumstances involving no breach by Dr. Annis or others of the terms of this Section 6.1, (ii) is generally disclosed to third parties by the Company without restriction on such third parties, or (iii) is approved for release by written authorization of an officer of the Company. Further, nothing herein prohibits Dr. Annis from communicating with government agencies about possible violations of federal, state, or local laws or otherwise providing information to government agencies or participating in government agency investigations or proceedings. In addition, notwithstanding Dr. Annis' confidentiality and nondisclosure obligations, Dr. Annis is hereby advised as follows pursuant to the Defend Trade Secrets Act: "An individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that (A) is made (i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual (A) files any document containing the trade secret under seal; and (B) does not disclose the trade secret, except pursuant to court order."

6.2 Inventions.

a. Dr. Annis will make full and prompt disclosure to the Company of all inventions, creations, improvements, enhancements, designs, innovations, discoveries, processes, methods, techniques, developments, software, computer programs, and works of authorship, whether or not patentable and whether or not copyrightable, that are created, made, conceived or reduced to practice by Dr. Annis or under his direction or jointly with others (i) during the Consultation Period if made for the Company in the course of the performance of the Services hereunder or (ii) during or after the Consultation Period if resulting or derived from Proprietary Information, whether or not during normal working hours or on the premises of the Company (all of which are collectively referred to in this Agreement as "Inventions"). Dr. Annis agrees to assign and does hereby assign to the Company (or any person or entity designated by the Company) all of Dr. Annis' right, title and interest in and to all Inventions and all related patents, patent applications, copyrights created in the work(s) of authorship, trademarks, trade names, and other industrial and intellectual property rights and applications therefor in the United States and elsewhere. However, clause (i) of this subsection (a) shall not apply to Inventions that do not relate to the present or planned business or research and development of the Company and that are made and conceived by Dr. Annis not during normal working hours, not on the Company's premises and not using the Company's tools, devices, equipment or Proprietary Information. Dr. Annis understands that, to the extent this Agreement shall be construed in accordance with the laws of any state that precludes a requirement that an individual assign certain classes of inventions, this Section 6.2(a) shall be interpreted not to apply to any invention that a court rules and/or the Company agrees falls within such classes. Dr. Annis further acknowledges that each original work of authorship that is made by Dr. Annis (solely or jointly with others) within the

scope of the Agreement and which is protectable by copyright is a "work made for hire," as that term is defined in the United States Copyright Act. Dr. Annis hereby waives all claims to moral rights in any Inventions.

b. Dr. Annis agrees that if, in the course of performing the Services, he incorporates into any Invention developed under this Agreement any preexisting invention, improvement, development, concept, discovery or other proprietary information owned by Dr. Annis or in which Dr. Annis has an interest ("Prior Inventions"), (i) Dr. Annis will inform the Company, in writing before incorporating such Prior Inventions into any Invention, and (ii) the Company is hereby granted a nonexclusive, royalty-free, perpetual, irrevocable, transferable worldwide license with the right to grant and authorize sublicenses, to make, have made, modify, use, import, offer for sale, sell, reproduce, distribute, modify, adapt, prepare derivative works of, display, perform, and otherwise exploit such Prior Inventions, without restriction, including, without limitation, as part of or in connection with such Invention, and to practice any method related thereto. Dr. Annis shall not incorporate any invention, improvement, development, concept, discovery or other proprietary information owned by any third party into any Invention without the Company's prior written permission.

c. Dr. Annis agrees to cooperate fully with the Company, both during and after the Consultation Period, with respect to the procurement, maintenance, and enforcement of copyrights, patents and other intellectual property rights (both in the United States and foreign countries) relating to Inventions that occurred or were initiated during the Consultation Period. Dr. Annis shall sign all papers, including, without limitation, copyright applications, patent applications, declarations, oaths, formal assignments, assignments of priority rights, and powers of attorney, which the Company may deem necessary or desirable in order to protect its rights and interests in any Invention. Dr. Annis further agrees that if the Company is unable, after reasonable effort, to secure the signature of Dr. Annis on any such papers, any executive officer of the Company shall be entitled to execute any such papers as the agent and the attorney-in-fact of Dr. Annis, and Dr. Annis hereby irrevocably designates and appoints each executive officer of the Company as Dr. Annis' agent and attorney-in-fact to execute any such papers on Dr. Annis' behalf, and to take any and all actions as the Company may deem necessary or desirable in order to protect its rights and interests in any Invention, under the conditions described in this sentence.

d. Dr. Annis shall maintain adequate and current written records (in the form of notes, sketches, drawings and as may be specified by the Company) to document the conception and/or first actual reduction to practice of any Invention. Such written records shall be available to and remain the sole property of the Company at all times.

7. **Other Agreements**. Dr. Annis hereby represents that, except as Dr. Annis has disclosed in writing to the Company, Dr. Annis is not bound by the terms of any agreement with any third party to refrain from using or disclosing any trade secret or confidential or proprietary information in the course of his consultancy with the Company, to refrain from competing, directly or indirectly, with the business of such third party or to refrain from soliciting employees, customers or suppliers of such third party. Dr. Annis further represents that his performance of all the terms of this Agreement and the performance of the Services as a consultant to the Company do not and will not breach any agreement with any third party to

which Dr. Annis is a party (including without limitation any nondisclosure or noncompetition agreement), and that Dr. Annis will not disclose to the Company or induce the Company to use any confidential or proprietary information or material belonging to any current or previous employer or others.

8. **Warranties**. Dr. Annis will assume sole responsibility for his compliance with applicable federal and state laws and regulations, and shall rely exclusively upon his own determination, or that of his legal advisers, that the performance of the Services and the receipt of the Consulting Benefits hereunder comply with such laws and regulations. Dr. Annis shall be solely responsible for all state and federal income taxes, unemployment insurance and social security taxes in connection with this Agreement and for maintaining adequate workers' compensation insurance coverage. Dr. Annis acknowledges that he is not relying upon the advice or representation of the Company with respect to the tax treatment of the Consulting Benefits.

9. **Non-Assignability of Contract**. This Agreement shall be binding upon, and inure to the benefit of, both parties and their respective successors and assigns, including any entity with which, or into which, the Company may be merged or which may succeed to its assets or business, provided, however, that the obligations of Dr. Annis are personal and shall not be assigned by her.

10. **Notices**. All notices required or permitted under this Agreement shall be in writing and shall be deemed effective upon personal delivery or upon deposit in the United States Post Office, by registered or certified mail, postage prepaid, addressed to the other party at such address or addresses as either party shall designate to the other.

11. **Complete Agreement**. Dr. Annis acknowledges that this Agreement, together with the Restrictive Covenant Agreement and the option agreements evidencing the Options, contains the entire understanding between the Parties and supersedes, replaces and takes precedence over any prior understanding or oral or written agreement between the Parties respecting the subject matter of this Agreement or the Options. There are no representations, agreements, arrangements, nor understandings, oral or written, between the Parties relating to the subject matter of this Agreement that are not fully expressed herein.

12. **Severability**. In the event any provision of this Agreement shall be held invalid, the same shall not invalidate or otherwise affect in any respect any other term or terms of this Agreement, which term or terms shall remain in full force and effect.

13. **Non-Waiver**. No delay or omission by the Company in exercising any right under this Agreement shall operate as a waiver of that or any other right. A waiver or consent given by the Company on any one occasion shall be effective only in that instance and shall not be construed as a bar to or waiver of any right on any other occasion.

14. **Amendment**. This Agreement may be amended or modified only by a written instrument executed by both the Company and Dr. Annis.

15.**Counterparts**. This Agreement may be executed in two (2) signed counterparts, each of which shall constitute an original, but all of which taken together shall constitute one and the same instrument.

16.**Interpretation**. Whenever the context may require, any pronouns used in this Agreement shall include the corresponding masculine, feminine or neuter forms, and the singular forms of nouns and pronouns shall include the plural, and vice versa. The captions of the sections of this Agreement are for convenience of reference only and in no way define, limit or affect the scope or substance of any section of this Agreement.

17.**Governing Law; Jurisdiction**. This Agreement shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts without giving effect to any choice or conflict of law provision or rule (whether of the Commonwealth of Massachusetts or any other jurisdiction) that would cause the application of laws of any jurisdictions other than those of the Commonwealth of Massachusetts.

[*Remainder of page intentionally blank*]

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the date and year first above written.

AILERON THERAPEUTICS, INC.

By: /s/ Manuel Aivado, M.D., Ph.D.
Name: Manuel Aivado, M.D., Ph.D.
Title: President and Chief Executive Officer

D. ALLEN ANNIS, PH.D.

/s/ D. Allen Annis, Ph.D.

Exhibit 31.1

Certification of Principal Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of Sarbanes-Oxley Act of 2002

I, Manuel C. Alves Aivado, M.D., Ph.D., certify that:

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

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

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

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

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

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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

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

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

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

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

Aileron Therapeutics, Inc.

/s/ Manuel C. Alves Aivado, M.D., Ph.D.

Manuel C. Alves Aivado, M.D., Ph.D.
President and Chief Executive Officer

Dated: May 8, 2023

Exhibit 31.2

Certification of Principal Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of Sarbanes-Oxley Act of 2002

I, Susan L. Drexler certify that:

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

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

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

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

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

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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

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

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

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

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

Aileron Therapeutics, Inc.

/s/ Susan L. Drexler

Susan L. Drexler
Interim Chief Financial Officer

Dated: May 8, 2023

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 Aileron Therapeutics, Inc. (the "Company") for the quarter ended March 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Manuel C. Alves Aivado, M.D., Ph.D., President and Chief Executive Officer of the Company, hereby certifies, pursuant to Section 1350 of Chapter 63 of Title 18, United States Code, that to his knowledge:

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

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

Dated: May 8, 2023

/s/ Manuel C. Alves Aivado, M.D., Ph.D.

Manuel C. Alves Aivado, M.D., Ph.D.
President and Chief Executive Officer

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

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 Aileron Therapeutics, Inc. (the "Company") for the quarter ended March 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Susan L. Drexler, Interim Chief Financial Officer of the Company, hereby certifies, pursuant to Section 1350 of Chapter 63 of Title 18, United States Code, that to his knowledge:

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

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

Dated: May 8, 2023

/s/ Susan L. Drexler

Susan L. Drexler
Interim Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.