UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-Q

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

for the quarterly period ended September 30, 2021

OR

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

COMMISSION FILE NUMBER: 001-37590

AVALO THERAPEUTICS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**45-0705648**
(State of incorporation)	(I.R.S. Employer Identification No.)
540 Gaither Road, Suite 400 **Rockville, Maryland 20850**	**(410) 522-8707**
(Address of principal executive offices)	(Registrant's telephone number, including area code)

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	AVTX	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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

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

As of November 5, 2021, the registrant had 112,317,829 shares of common stock outstanding.

AVALO THERAPEUTICS, INC.

FORM 10-Q

For the Quarter Ended September 30, 2021

TABLE OF CONTENTS

PART I - FINANCIAL INFORMATION

Item 1. Financial Statements.

AVALO THERAPEUTICS, INC. and SUBSIDIARIES

Condensed Consolidated Balance Sheets
(In thousands, except share and per share data)

	September 30, 2021 (unaudited)	December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	$ 71,506	$ 18,919
Accounts receivable, net	1,435	2,177
Other receivables	2,477	2,208
Inventory, net	16	3
Prepaid expenses and other current assets	1,408	2,660
Restricted cash, current portion	164	38
Total current assets	77,006	26,005
Property and equipment, net	1,410	1,607
Other long-term asset	2,000	—
Intangible assets, net	304	1,585
Goodwill	14,409	14,409
Restricted cash, net of current portion	227	149
Total assets	$ 95,356	$ 43,755
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 3,568	$ 2,574
Accrued expenses and other current liabilities	15,460	11,310
Current liabilities of discontinued operations	10	1,341
Total current liabilities	19,038	15,225
Notes payable	32,483	—
Royalty obligation	2,000	2,000
Deferred tax liability, net	130	90
Other long-term liabilities	1,396	1,878
Total liabilities	55,047	19,193
Stockholders' equity:		
Common stock—$0.001 par value; 200,000,000 shares authorized at September 30, 2021 and December 31, 2020; 112,317,829 and 75,004,127 shares issued and outstanding at September 30, 2021 and December 31, 2020, respectively	112	75
Preferred stock—$0.001 par value; 5,000,000 shares authorized at September 30, 2021 and December 31, 2020;0 and 1,257,143 shares issued and outstanding at September 30, 2021 and December 31, 2020, respectively	—	1
Additional paid-in capital	283,167	202,276
Accumulated deficit	(242,970)	(177,790)
Total stockholders' equity	40,309	24,562
Total liabilities and stockholders' equity	$ 95,356	$ 43,755

See accompanying notes to the unaudited condensed consolidated financial statements.

AVALO THERAPEUTICS, INC. and SUBSIDIARIES

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Revenues:				
Product revenue, net	$ 1,350	$ 1,111	$ 4,554	$ 5,202
License revenue	—	—	625	—
Total revenues, net	1,350	1,111	5,179	5,202
Operating expenses:				
Cost of product sales	908	77	1,067	221
Research and development	10,551	8,872	48,325	19,556
Acquired in-process research and development	—	—	—	25,549
General and administrative	5,188	4,573	16,718	13,350
Sales and marketing	738	462	1,959	1,792
Amortization expense	428	404	1,281	1,238
Total operating expenses	17,813	14,388	69,350	61,706
	(16,463)	(13,277)	(64,171)	(56,504)
Other (expense) income:				
Change in fair value of Investment in Aytu	—	—	—	5,208
Other (expense) income, net	(15)	19	(20)	447
Interest (expense) income, net	(985)	—	(1,207)	—
Total other (expense) income, net from continuing operations	(1,000)	19	(1,227)	5,655
Loss from continuing operations before taxes	(17,463)	(13,258)	(65,398)	(50,849)
Income tax expense (benefit)	8	3	(180)	(2,607)
Loss from continuing operations	$ (17,471)	$ (13,261)	$ (65,218)	$ (48,242)
Income (loss) from discontinued operations, net of tax	76	(198)	38	385
Net loss	$ (17,395)	$ (13,459)	$ (65,180)	$ (47,857)
Net (loss) income per share of common stock, basic and diluted:				
Continuing operations	$ (0.17)	$ (0.16)	$ (0.67)	$ (0.68)
Discontinued operations	0.00	(0.01)	0.00	0.00
Net loss per share of common stock, basic and diluted	$ (0.17)	$ (0.17)	$ (0.67)	$ (0.68)
Net (loss) income per share of preferred stock, basic and diluted:				
Continuing operations		$ (0.82)	$ (3.34)	$ (3.40)
Discontinued operations		(0.01)	0.00	0.02
Net loss per share of preferred stock, basic and diluted		$ (0.83)	$ (3.34)	$ (3.38)

See accompanying notes to the unaudited condensed consolidated financial statements.

AVALO THERAPEUTICS, INC. and SUBSIDIARIES

Condensed Consolidated Statements of Changes in Stockholders' Equity (Unaudited)
(In thousands, except share amounts)

	Common stock		Preferred Stock		Additional paid-in	Accumulated	Total stockholders'
	Shares	Amount	Shares	Amount	capital	deficit	equity
Three Months Ended September 30, 2021							
Balance, June 30, 2021	96,008,951	$ 96	—	$ —	$ 247,067	$ (225,575)	$ 21,588
Issuance of common stock in underwritten public offering, net	14,308,878	14	—	—	29,032	—	29,046
Issuance of common stock pursuant to ATM Program, net	2,000,000	2	—	—	5,310	—	5,312
Stock-based compensation	—	—	—	—	1,758	—	1,758
Net loss	—	—	—	—	—	$ (17,395)	(17,395)
Balance, September 30, 2021	112,317,829	$ 112	—	$ —	$ 283,167	$ (242,970)	$ 40,309

	Common stock		Preferred Stock		Additional paid-in	Accumulated	Total stockholders'
	Shares	Amount	Shares	Amount	capital	deficit	equity
Nine Months Ended September 30, 2021							
Balance, December 31, 2020	75,004,127	$ 75	1,257,143	$ 1	$ 202,276	$ (177,790)	$ 24,562
Issuance of shares of common stock and pre-funded warrants in underwritten public offering, net	13,971,889	14	—	—	37,639	—	37,653
Issuance of common stock in underwritten public offering, net	14,308,878	14	—	—	29,032	—	29,046
Issuance of common stock pursuant to ATM Program, net	2,000,000	2	—	—	5,310	—	5,312
Issuance of equity classified warrants related to venture debt financing agreement	—	—	—	—	861	—	861
Exercise of stock options	580,617	1	—	—	1,567	—	1,568
Conversion of preferred stock to common stock	6,285,715	6	(1,257,143)	(1)	(5)	—	—
Shares purchased through employee stock purchase plan	88,686	—	—	—	207	—	207
Restricted stock units vested during period	77,917	—	—	—	—	—	—
Stock-based compensation	—	—	—	—	6,280	—	6,280
Net loss	—	—	—	—	—	(65,180)	(65,180)
Balance, September 30, 2021	112,317,829	$ 112	—	$ —	$ 283,167	$ (242,970)	$ 40,309

	Common stock		Preferred Stock		Additional paid-in	Accumulated	Total stockholders'
	Shares	Amount	Shares	Amount	capital	deficit	equity
Three Months Ended September 30, 2020							
Balance, June 30, 2020	74,900,047	$ 75	1,257,143	$ 1	$ 199,191	$ (148,689)	$ 50,578
Stock-based compensation	—	—	—	—	1,448	—	1,448
Net loss	—	—	—	—	—	(13,459)	(13,459)
Balance, September 30, 2020	74,900,047	$ 75	1,257,143	$ 1	$ 200,639	$ (162,148)	$ 38,567

	Common stock		Preferred Stock		Additional paid-in	Accumulated	Total stockholders'
	Shares	Amount	Shares	Amount	capital	deficit	equity
Nine Months Ended September 30, 2020							
Balance, December 31, 2019	44,384,222	$ 44	2,857,143	$ 3	$ 135,239	$ (114,291)	$ 20,995
Conversion of preferred stock to common stock	8,000,000	8	(1,600,000)	(2)	(6)	—	—
Issuance of shares related to Aevi Merger	3,893,361	4	—	—	15,492	—	15,496
Issuance of shares pursuant to registered direct offering, net	1,306,282	2	—	—	5,135	—	5,137
Issuance of shares pursuant to common stock private placement, net	1,951,219	2	—	—	3,886	—	3,888
Issuance of shares of common stock in underwritten public offering, net	15,180,000	15	—	—	35,413	—	35,428
Exercise of stock options and warrants	50,239	—	—	—	92	—	92
Restricted stock units vested during period	111,667	—	—	—	—	—	—
Restricted stock units withheld for taxes	(35,279)	—	—	—	(94)	—	(94)
Shares purchased through employee stock purchase plan	58,336	—	—	—	133	—	133
Stock-based compensation	—	—	—	—	5,349	—	5,349
Net loss	—	—	—	—	—	(47,857)	(47,857)
Balance, September 30, 2020	74,900,047	$ 75	1,257,143	$ 1	$ 200,639	$ (162,148)	$ 38,567

See accompanying notes to the unaudited condensed consolidated financial statements.

AVALO THERAPEUTICS, INC. and SUBSIDIARIES

Condensed Consolidated Statements of Cash Flows (Unaudited)
(Amounts in thousands)

	Nine Months Ended September 30,	
	2021	2020
Operating activities		
Net loss	$ (65,180)	$ (47,857)
Adjustments to reconcile net loss used in operating activities:		
Depreciation and amortization	1,362	1,305
Stock-based compensation	6,280	5,349
Accretion of debt discount	445	—
Acquired in-process research and development, including transaction costs	—	25,549
Deferred taxes	40	29
Change in fair value of Investment in Aytu	—	(5,208)
Change in fair value of warrant liability and unit purchase option liability	—	(14)
Change in value of Guarantee	—	(1,755)
Changes in assets and liabilities:		
Accounts receivable, net	742	(172)
Other receivables	(269)	(4,184)
Other long-term asset	(2,000)	—
Inventory, net	(13)	12
Prepaid expenses and other assets	1,252	(744)
Accounts payable	994	(548)
Income taxes payable	—	288
Accrued expenses and other liabilities	2,604	1,776
Lease liability, net	(50)	10
Net cash used in operating activities	(53,793)	(26,164)
Investing activities		
Proceeds from sale of Investment in Aytu, net	—	12,837
Net cash paid in merger with Aevi	—	(1,251)
Purchase of property and equipment	(102)	(63)
Net cash used in investing activities	(102)	11,523
Financing activities		
Proceeds from issuance of common stock and pre-funded warrants in underwritten public offering, net	37,653	—
Proceeds from Notes and warrants, net of debt issuance costs paid	32,900	—
Proceeds from issuance of common stock in underwritten public offering, net	29,046	35,429
Proceeds from common stock pursuant to ATM Program, net	5,312	—
Proceeds from registered direct offering, net	—	5,136
Proceeds from sale of shares pursuant to common stock private placement, net	—	3,888
Proceeds from exercise of stock options	1,568	92
Proceeds from issuance of common stock under employee stock purchase plan	207	133
Restricted stock units withheld for taxes	—	(94)
Net cash provided by financing activities	106,686	44,584
Increase in cash, cash equivalents and restricted cash	52,791	29,943
Cash, cash equivalents, and restricted cash at beginning of period	19,106	3,729
Cash, cash equivalents, and restricted cash at end of period	$ 71,897	$ 33,672
Supplemental disclosures of cash flow information		
Cash paid for interest	$ 796	$ —
Cash paid for taxes	$ —	$ 316
Supplemental disclosures of non-cash activities		
Issuance of common stock in Aevi Merger	$ —	$ 15,496
Leased asset obtained in exchange for new operating lease liability	$ —	$ 376

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

	September 30,	
	2021	2020
Cash and cash equivalents	$ 71,506	$ 33,391
Restricted cash, current	164	132
Restricted cash, non-current	227	149
Total cash, cash equivalents and restricted cash	$ 71,897	33,672

See accompanying notes to the unaudited condensed consolidated financial statements.

AVALO THERAPEUTICS, INC. and SUBSIDIARIES

Notes to Unaudited Condensed Consolidated Financial Statements

1. Business

Avalo Therapeutics, Inc. (the "Company" or "Avalo") is a leading clinical-stage precision medicine company that discovers, develops, and commercializes targeted therapeutics for patients with significant unmet clinical need in immunology, immuno-oncology, and rare genetic diseases. The Company has built a diverse portfolio of innovative therapies to deliver meaningful medical impact for patients in urgent need. Avalo's clinical candidates commonly have a proven mechanistic rationale, biomarkers and/or an established proof-of-concept to expedite and increase the probability of success.

In August 2021, the Company changed its corporate name change from Cerecor Inc. to Avalo Therapeutics, Inc. by filing a Certificate of Amendment to our Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware and merged certain wholly-owned subsidiaries into the Company to consolidate its corporate structure. The name change underscores the Company's transition to developing innovative targeted therapies in immunology, immuno-oncology, and rare genetic diseases.

Avalo was incorporated and commenced operation in 2011 and completed its initial public offering in October 2015.

Liquidity

As of September 30, 2021, Avalo had $71.5 million in cash and cash equivalents. In September 2021, the Company closed an underwritten public offering of14,308,878 shares of common stock for net proceeds of approximately $29.0 million. Additionally, in August 2021, the Company sold 2.0 million shares of common stock under its "at-the-market" sales agreement (the "ATM Program") for net proceeds of approximately $5.3 million.

In June 2021, the Company entered into a $35.0 million venture debt financing agreement (the "Loan Agreement") with Horizon Technology Finance Corporation and Powerscourt Investments XXV, LP (collectively, the "Lenders"). As of September 30, 2021, the Company has received the full $ 35.0 million, $20.0 million of which was funded on the closing date in the second quarter of 2021 and the remaining $15.0 million was funded during the third quarter of 2021 in two separate tranches. The Loan Agreement contains certain covenants and certain other specified events that could result in an event of default, which if not cured or waived, could result in the acceleration of all or a substantial portion of the notes. As of the filing date of this Quarterly Report on Form 10-Q, the Company was not aware of any breach of covenants nor received any notice of event of default from the Lenders.

In the first quarter of 2021, the Company closed an underwritten public offering of13,971,889 shares of its common stock and1,676,923 pre-funded warrants for net proceeds of approximately $37.7 million.

In order to meet its cash flow needs, the Company applies a disciplined decision-making methodology as it evaluates the optimal allocation of the Company's resources between investing in the Company's existing pipeline assets and acquisitions or in-licensing of new assets. For the nine months ended September 30, 2021, Avalo generated a net loss of $65.2 million and negative cash flows from operations of $53.8 million. As of September 30, 2021, Avalo had an accumulated deficit of $243.0 million.

The accompanying condensed consolidated financial statements have been prepared assuming the Company will continue as a going concern; however, losses are expected to continue as the Company continues to invest in its research and development pipeline assets. The Company will require additional financing to fund its operations and to continue to execute its business strategy at least one year after the date the condensed consolidated financial statements included herein were issued. These conditions raise substantial doubt about the Company's ability to continue as a going concern.

To mitigate these conditions and to meet the Company's capital requirements, management plans to use its current cash on hand along with some combination of the following: (i) dilutive and/or non-dilutive financings, (ii) federal and/or private grants, (iii) other out-licensing or strategic alliances/collaborations of its current pipeline assets, and (iv) out-licensing or sale of its non-core assets. If the Company raises additional funds through collaborations, strategic alliances or licensing arrangements with third parties, the Company might have to relinquish valuable rights to its technologies, future revenue streams, research programs or product candidates. Subject to limited exceptions, our venture debt financing agreement prohibits us from incurring certain additional indebtedness, making certain asset dispositions, and entering into certain mergers, acquisitions or other business combination transactions without prior consent of the Lenders. If the Company requires but is unable to obtain additional funding, the Company may be forced to make reductions in spending, delay, suspend, reduce or eliminate some or all of its planned research and development programs, or liquidate assets where possible. Due to the uncertainty regarding future financing and other potential options to raise additional funds, management has

concluded that substantial doubt exists with respect to the Company's ability to continue as a going concern within one year after the date that the financial statements in this Quarterly Report on Form 10-Q were issued.

Over the long term, the Company's ultimate ability to achieve and maintain profitability will depend on, among other things, the development, regulatory approval, and commercialization of its pipeline assets, and the potential receipt and sale of any PRVs it receives.

2. Basis of Presentation and Significant Accounting Policies

Basis of Presentation

The Company's unaudited condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASU") of the Financial Accounting Standards Board ("FASB").

In the opinion of management, the accompanying unaudited condensed consolidated financial statements include all adjustments, consisting of normal recurring adjustments, which are necessary to present fairly the Company's financial position, results of operations, and cash flows. The condensed consolidated balance sheet at December 31, 2020 has been derived from audited financial statements at that date. The interim results of operations are not necessarily indicative of the results that may occur for the full fiscal year. Certain information and footnote disclosure normally included in the financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to instructions, rules, and regulations prescribed by the United States Securities and Exchange Commission ("SEC").

The Company believes that the disclosures provided herein are adequate to make the information presented not misleading when these unaudited condensed consolidated financial statements are read in conjunction with the December 31, 2020 audited consolidated financial statements.

Unless otherwise indicated, all amounts in the following tables are in thousands except share and per share amounts.

Significant Accounting Policies

During the nine months ended September 30, 2021, there were no significant changes to the Company's summary of significant accounting policies contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2020, as filed with the SEC on March 8, 2021.

3. Revenue

The Company generates substantially all of its revenue from sales of Millipred®, an oral prednisolone indicated across a wide variety of inflammatory conditions, which is considered a prescription drug. The Company sells its prescription drug in the United States primarily through wholesale distributors. Wholesale distributors account for substantially all of the Company's net product revenues and trade receivables. For the three months ended September 30, 2021, the Company's three largest customers accounted for approximately 52%, 24%, and 24% of the Company's total net product revenues. For the nine months ended September 30, 2021, the Company's three largest customers accounted for approximately 62%, 20%, and 17% of the Company's total net product revenues. Revenue from sales of prescription drugs was $1.4 million and $1.1 million for the three months ended September 30, 2021 and 2020, respectively, and $4.6 million and $5.2 million for the nine months ended September 30, 2021 and 2020, respectively.

The Company has a license and supply agreement for the Millipred® product with a wholly owned subsidiary of Teva Pharmaceutical Industries Ltd. ("Teva"), which expires on September 30, 2023. Beginning July 1, 2021, Avalo is required to pay Teva fifty percent of the net profit of the Millipred® product following each calendar quarter, subject to a $0.5 million quarterly minimum payment. For the three and nine months ended September 30, 2021, the Company recognized $0.7 million in cost of product sales related to the royalty. Dr. Sol Barer served as the Chairman of the Company's board of directors until June 2021 and currently serves as the Chairman of Teva's board of directors.

License revenue was $0.6 million for the nine months ended September 30, 2021, which was related to upfront fees received in the second quarter of 2021 as a result of the out-licenses of the Company's rights to its non-core neurology pipeline assets: AVTX-301 to Alto Neuroscience, Inc. ("Alto") and AVTX-406 to ES Therapeutics, LLC ("ES"). ES is a wholly-owned subsidiary of Armistice Capital Master Fund Ltd. (an affiliate of Armistice Capital, LLC and collectively "Armistice"), which is a significant stockholder of

the Company and whose chief investment officer, Steven Boyd, and managing director, Keith Maher, serve on the Company's Board of Directors. The transaction with ES was approved in accordance with the Company's related party transaction policy. Avalo is eligible to receive additional payments upon achievement of specified development, regulatory and sales-based milestones for both AVTX-301 and AVTX-406 and is also eligible to royalty payments based on net sales of AVTX-301; refer to Note 14 for more information.

4. Aytu Divestiture

Overview of Sale of Pediatric Portfolio and Related Commercial Infrastructure to Aytu BioScience

On November 1, 2019, the Company closed on an asset purchase agreement to sell the Company's rights, title and interest in assets relating to certain commercialized products (the "Pediatric Portfolio") and the corresponding commercial infrastructure to Aytu BioScience, Inc. ("Aytu"). Aytu paid consideration of $ 4.5 million in cash and approximately 9.8 million shares of Aytu convertible preferred stock, and assumed certain of the Company's liabilities, including the Company's payment obligations to Deerfield CSF, LLC ("Deerfield") and certain other liabilities primarily related to contingent consideration and sales returns. Steve Boyd, chief investment officer of Armistice Capital, LLC, a significant stockholder of the Company and a member of the Company's Board of Directors, served on Aytu's Board from March 2019 until August 30, 2021. The transactions and agreements between the Company and Aytu were approved in accordance with the Company's related party transaction policy.

Upon the sale of the Pediatric Portfolio to Aytu, the Pediatric Portfolio met all conditions to be classified as discontinued operations. Therefore, the accompanying condensed consolidated financial statements for the three and nine months ended September 30, 2021 and 2020 and as of December 31, 2020 reflect the operations, net of taxes, and related assets and liabilities of the Pediatric Portfolio as discontinued operations. Refer to the "Discontinued Operations" section below for more information, including Avalo's continuing involvement, which the Company expects to end in the second quarter of 2022.

Avalo retained all rights to Millipred®, which the Company considers a non-core asset. Aytu managed Millipred® commercial operations until June 30, 2021 pursuant to transition service agreements entered into between Aytu and Avalo, which included Aytu collecting cash on behalf of Avalo for sales of Millipred ® until the second quarter of 2020. In the third quarter of 2021, Avalo finalized its trade and distribution channel to allow it to control third party distribution and began managing Millipred ® commercial operations at that time. The Company agreed to postpone receipt of $2.0 million from Aytu in order to better facilitate the transition of commercial operations from Aytu. $1.0 million of the postponement will become due in December 2022 and the remainder in December 2024. The Company recognized the $2.0 million as an other long-term asset on the Company's condensed consolidated balance sheet as of September 30, 2021.

Deerfield Guarantee

As of the closing date of the Aytu Divestiture on November 1, 2019, Aytu assumed the Company's debt obligation to Deerfield which included monthly payments of $0.1 million through January 2021, with a balloon payment of $15.0 million that was to be due in January 2021. Aytu also assumed the contingent consideration liability related to future royalties on Avadel Pharmaceuticals PLC's ("Avadel") pediatric products, which included minimum monthly payments of $ 0.1 million through February 2026. In conjunction with the closing of this transaction, the Company entered into a guarantee in favor of Deerfield, which guarantees the payment of the assumed liabilities to Deerfield, which included the debt obligation and includes the contingent consideration related to future royalties on Avadel's pediatric products (collectively referred to as the "Guarantee").

Aytu publicly reported that it had paid the $15.0 million balloon payment to Deerfield before it came due in June 2020 and the fixed monthly payments to Deerfield ended in January 2021, thus satisfying the debt obligation. Aytu publicly reported that it had entered into a Waiver, Release and Consent in June 2021, pursuant to which it paid $2.8 million to Deerfield in early satisfaction of the remaining contingent consideration related to future royalties on Avadel's pediatric products. Aytu agreed to pay the remaining fixed obligation of $3.0 million in six equal quarterly payments of $0.5 million over the next six quarters commencing September 1, 2021.

Avalo is required to make a payment under the Guarantee upon demand by Deerfield if all or any part of the fixed payments are not paid by Aytu when due or upon breach of a covenant. The remaining minimum commitments payable (as most recently publicly reported by Aytu) was $ 3.0 million as of June 30, 2021, which represents Avalo's estimated maximum potential future payments under the Guarantee.

The fair value of the Guarantee, which relates to the Company's obligation to make future payments if Aytu defaults, was determined at the time of the Aytu Divestiture as the difference between (i) the estimated fair value of the assumed payments using Avalo's estimated cost of debt and (ii) the estimated fair value of the assumed payments using Aytu's estimated cost of debt. At each

subsequent reporting period, the value of the Guarantee is determined based on the expected credit loss of the Guarantee with changes recorded in (loss) income from discontinued operations, net of tax within the consolidated statements of operations and comprehensive loss. The Company concluded that the expected credit loss of the Guarantee was de minimis as of September 30, 2021 based on considerations such as recent financings, cash position, operating cash flows and trends and Aytu's ability to meet its financial commitments.

Discontinued Operations

The following tables summarizes the liabilities of the discontinued operations as of September 30, 2021 and December 31, 2020 (in thousands):

	September 30, 2021	December 31, 2020
Liabilities		
Current liabilities:		
Accrued expenses and other current liabilities	$ 10	$ 1,341
Total current liabilities of discontinued operations	$ 10	$ 1,341

Aytu assumed sales returns of the Pediatric Portfolio made after the transaction close date related to sales prior to November 1, 2019 only to the extent such post-Closing sales returns exceed $2.0 million and are less than $2.8 million (in other words, Aytu will only assume $0.8 million of such returns). Therefore, Avalo is liable for future sales returns of the Pediatric Portfolio sold prior to the transaction close date in excess of the $0.8 million assumed by Aytu. The Company estimated future returns on sales made prior to the transaction close date as of September 30, 2021, which was recognized within accrued expenses and other current liabilities from discontinued operations (and shown in the table above).

Changes to the Company's estimate of sales returns related to the Pediatric Portfolio is included within discontinued operations on the statement of operations and comprehensive loss and is shown within product revenue, net in the table summarizing the results of discontinued operations below. In future periods, as additional information becomes available, the Company expects to recognize expense (or a benefit) related to actual sales returns of the Pediatric Portfolio in excess (or less than) the returns reserve recorded, which will be recognized within discontinued operations. The Company expects this involvement to continue until sales returns are no longer accepted on sales of the Pediatric Portfolio made prior to November 1, 2019. Returns of these products may be accepted through the second quarter of 2022 (in line with the products' return policies).

The following table summarizes the results of discontinued operations for the three and nine months ended September 30, 2021 and 2020 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Product revenue, net	$ 76	$ (198)	$ 139	$ (1,370)
Operating expenses:				
Sales and marketing	—	—	101	—
Total operating expenses	—	—	101	—
Other income:				
Change in value of Guarantee	—	—	—	1,755
Total other income	—	—	—	1,755
Income (loss) from discontinued operations, net of tax	$ 76	$ (198)	$ 38	$ 385

There were no non-cash operating items from discontinued operations for the nine months ended September 30, 2021 and no non-cash investing items from the discontinued operations for the nine months ended September 31, 2021 and 2020. The significant non-cash operating item from the discontinued operations for the nine months ended September 30, 2020 is contained below (in thousands).

	Nine Months Ended September 30,	
	2021	2020
Change in value of Guarantee	—	$ (1,755)

5. Net Loss Per Share

The Company computes earnings per share ("EPS") using the two-class method. The two-class method of computing EPS is an earnings allocation formula that determines EPS for common stock and any participating securities according to dividends declared and participation rights in undistributed earnings.

The Company had two classes of stock outstanding during the nine months ended September 30, 2021; common stock and preferred stock. The preferred stock outstanding during the period had the same rights and preferences as the Company's common stock, other than being non-voting, and is convertible into share of common stock on a 1-for-5 ratio. In April 2021, Armistice, which is a significant stockholder of the Company and whose chief investment officer, Steven Boyd, and managing director, Keith Maher, serve on the Board of the Company, converted the remaining 1,257,143 shares of convertible preferred stock into6,285,715 shares of Avalo's common stock (refer to Note 11 for more information). Therefore, the Company had only common stock outstanding during the three months ended September 30, 2021. Under the two-class method, the convertible preferred stock was considered a separate class of stock until the time it was converted to common shares for EPS purposes and therefore basic and diluted EPS is provided below for both common stock and preferred stock for the three months ended September 30, 2020 and the nine months ended September 30, 2020 and 2021.

EPS for common stock and EPS for preferred stock is computed by dividing the sum of distributed earnings and undistributed earnings for each class of stock by the weighted average number of shares outstanding for each class of stock for the period. In applying the two-class method, undistributed earnings are allocated to common stock and preferred stock based on the weighted average shares outstanding during the period, which assumes the convertible preferred stock has been converted to common stock. The weighted average number of common shares outstanding as of September 30, 2021 includes the weighted average effect of the pre-funded warrants issued in connection with the underwritten public offering that closed in January 2021, the exercise of which requires nominal consideration for the delivery of the shares of common stock (refer to Note 11 for more information).

Diluted net (loss) income per share includes the potential dilutive effect of common stock equivalents as if such securities were converted or exercised during the period, when the effect is dilutive. Common stock equivalents include: (i) outstanding stock options and restricted stock units, which are included under the "treasury stock method" when dilutive; and (ii) common stock to be issued upon the exercise of outstanding warrants, which are included under the "treasury stock method" when dilutive. Because the impact of these items is generally anti-dilutive during periods of net loss, there is no difference between basic and diluted loss per common share for periods with net losses. In periods of net loss, losses are allocated to the participating security only if the security has not only the right to participate in earnings, but also a contractual obligation to share in the Company's losses.

The following tables set forth the computation of basic and diluted net (loss) income per share of common stock and preferred stock for the three and nine months ended September 30, 2021 and 2020 (in thousands, except share and per share amounts):

	Three Months Ended September 30, 2021	
	Common stock	
	Continuing Operations	Discontinued Operations
Numerator:		
Allocation of undistributed net loss	$ (17,471)	$ 76
Denominator:		
Weighted average shares	100,490,389	100,490,389
Basic and diluted net loss per share	$ (0.17)	$ 0.00

	Nine Months Ended September 30, 2021			
	Common stock		Preferred stock	
	Continuing Operations	Discontinued Operations	Continuing Operations	Discontinued Operations
Numerator:				
Allocation of undistributed net loss	$ (63,602)	$ 37	$ (1,616)	$ 1
Denominator:				
Weighted average shares	95,125,817	95,125,817	483,517	483,517
Basic and diluted net loss per share	$ (0.67)	$ 0.00	$ (3.34)	$ 0.00

	Three Months Ended September 30, 2020			
	Common stock		Preferred stock	
	Continuing Operations	Discontinued Operations	Continuing Operations	Discontinued Operations
Numerator:				
Allocation of undistributed net loss	$ (12,234)	$ (183)	$ (1,027)	$ (15)
Denominator:				
Weighted average shares	74,900,047	74,900,047	1,257,143	1,257,143
Basic and diluted net loss per share	$ (0.16)	$ (0.01)	$ (0.82)	$ (0.01)

	Nine Months Ended September 30, 2020			
	Common stock		Preferred stock	
	Continuing Operations	Discontinued Operations	Continuing Operations	Discontinued Operations
Numerator:				
Allocation of undistributed net loss	$ (43,511)	$ 347	$ (4,731)	$ 38
Denominator:				
Weighted average shares	63,920,795	63,920,795	1,389,990	1,389,990
Basic and diluted net loss per share	$ (0.68)	$ 0.00	$ (3.40)	$ 0.02

The following outstanding securities have been excluded from the computation of diluted weighted shares outstanding for the three and nine months ended September 30, 2021 and 2020, as they could have been anti-dilutive:

	Three and Nine Months Ended September 30,	
	2021	2020
Stock options	13,473,412	9,548,262
Warrants on common stock[1]	4,406,224	4,024,708
Restricted Stock Units	77,916	155,833

[1] The above table excludes 1,676,923 pre-funded warrants for the three and nine months ended September 30, 2021. See “Q1 2021 Financing” in Note 11 for more information.

6. Asset Acquisition

Aevi Merger

In the first quarter of 2020, the Company consummated its merger with Aevi Genomic Medicine Inc. ("Aevi"), in which Avalo acquired the rights to AVTX-002, AVTX-006 and AVTX-007 (the "Merger" or the "Aevi Merger").

The Merger consideration included (i) stock valued at approximately $15.5 million, resulting in the issuance of approximately 3.9 million shares of Avalo common stock to Aevi stockholders, (ii) forgiveness of $4.1 million the Company had loaned Aevi prior to the Merger closing, (iii) contingent value rights for up to an additional $6.5 million in subsequent payments based on certain development milestones (discussed further in Note 14), and (iv) transaction costs of $1.5 million.

The Company recorded this transaction as an asset purchase as opposed to a business combination because management concluded that substantially all the value received was related to one group of similar identifiable assets, which was the in-process research and development ("IPR&D") for two early phase therapies. The Company considered these pipeline assets similar due to similarities in the risks of development, stage of development, regulatory pathway, patient populations and economics of commercialization. The fair value of $25.5 million (consisting primarily of $24.0 million IPR&D, $0.3 million of cash and $0.9 million of assembled workforce) was immediately recognized as acquired in-process research and development expense in the Company's consolidated statement of operations and comprehensive loss because the IPR&D asset has no alternate use due to the stage of development. The assembled workforce asset was recorded to intangible assets and will be amortized over an estimated useful life of two years.

7. Fair Value Measurements

ASC No. 820, *Fair Value Measurements and Disclosures* ("ASC 820"), defines fair value as the price that would be received to sell an asset, or paid to transfer a liability, in the principal or most advantageous market in an orderly transaction between market participants on the measurement date. The fair value standard also establishes a three-level hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The valuation hierarchy is based upon the transparency of inputs to the valuation of an asset or liability on the measurement date. The three levels are defined as follows:

- Level 1—inputs to the valuation methodology are quoted prices (unadjusted) for an identical asset or liability in an active market.
- Level 2—inputs to the valuation methodology include quoted prices for a similar asset or liability in an active market or model-derived valuations in which all significant inputs are observable for substantially the full term of the asset or liability.
- Level 3—inputs to the valuation methodology are unobservable and significant to the fair value measurement of the asset or liability.

The following table presents, for each of the fair value hierarchy levels required under ASC 820, the Company's assets and liabilities that are measured at fair value on a recurring basis (in thousands):

	September 30, 2021 Fair Value Measurements Using		
	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets			
Investments in money market funds*	$ 70,366	$ —	$ —

	December 31, 2020 Fair Value Measurements Using		
	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Assets			
Investments in money market funds*	$ 17,503	$ —	$ —

*Investments in money market funds are reflected in cash and cash equivalents on the accompanying condensed consolidated balance sheets.

As of September 30, 2021 and December 31, 2020, the Company's financial instruments included cash and cash equivalents, restricted cash, accounts receivable, other receivables, prepaid and other current assets, accounts payable, accrued expenses and other current liabilities, and long-term debt. The carrying amounts reported in the accompanying condensed consolidated financial statements for cash and cash equivalents, restricted cash, accounts receivable, other receivables, prepaid and other current assets, accounts payable, and accrued expenses and other current liabilities approximate their respective fair values because of the short-term nature of these accounts. The estimated fair value of the Company's debt approximates its carrying value as of September 30, 2021 and is in Level Two of the fair value hierarchy (refer to Note 10 for more information).

No changes in valuation techniques or inputs occurred during the nine months ended September 30, 2021 and 2020.No transfers of assets between Level 1 and Level 2 of the fair value measurement hierarchy occurred during the nine months ended September 30, 2021 and 2020.

8. Leases

The Company currently occupies two leased properties, both of which serve as administrative office space. The Company determined that both of these leases are operating leases based on the lease classification test performed at lease commencement.

The annual base rent for the Company's office located in Rockville, Maryland is $0.2 million, subject to annual 2.5% increases over the term of the lease. The applicable lease provided for a rent abatement for a period of 12 months following the Company's date of occupancy. The lease has an initial term of 10 years from the date the Company makes its first annual fixed rent payment, which occurred in January 2020. The Company has the option to extend the lease two times, each for a period of five years, and may terminate the lease as of the sixth anniversary of the first annual fixed rent payment, upon the payment of a termination fee. As of the lease commencement date, it was not reasonably certain that the Company will exercise the renewal periods or early terminate the lease and therefore the end date of the lease for accounting purposes is January 31, 2030.

The Company entered into a sublease for additional administrative office space in Chesterbrook, Pennsylvania in May 2020 (the "Chesterbrook Lease"). The annual base rent under the Chesterbrook Lease is $0.3 million. The lease expires on November 30, 2021.

In anticipation of the expiry of the Chesterbrook Lease on November 30, 2021, in September 2021, the Company entered into a lease for administrative office space in Chesterbrook, Pennsylvania that commences on December 1, 2021 (the "New Chesterbrook Lease"). The New Chesterbrook Lease has an initial term of 5.25 years from the lease commencement date. The initial annual base rent under the New Chesterbrook Lease is approximately $0.2 million. The Company will evaluate the accounting impact in the fourth quarter of 2021, including the lease classification test and the recognition of the lease right-of-use ("ROU") asset and corresponding lease liability as of the lease commencement date on December 1, 2021. Therefore, the information contained below excludes the New Chesterbrook Lease.

Supplemental balance sheet information related to the leased properties (excluding the New Chesterbrook Lease) is as follows (in thousands):

	As of	
	September 30, 2021	December 31, 2020
Property and equipment, net	$ 698	$ 917
Accrued expenses and other current liabilities	$ 219	$ 426
Other long-term liabilities	977	1,038
Total operating lease liabilities	$ 1,196	$ 1,464

The operating lease ROU assets are included in property and equipment and the lease liabilities are included in accrued expenses and other current liabilities and other long-term liabilities in our condensed consolidated balance sheets. The Company utilized a weighted average discount rate of 7.6% to determine the present value of the lease payments. The weighted average remaining term of the operating leases at September 30, 2021 was 8.0 years.

The components of lease expense for the three and nine months ended September 30, 2021 and 2020 were as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Operating lease cost*	$ 97	$ 102	$ 287	$ 244

*Includes short-term leases, which are immaterial.

The following table shows a maturity analysis of the operating lease liabilities as of September 30, 2021[1] (in thousands):

	Undiscounted Cash Flows
October 1, 2021 through December 31, 2021	$ 89
2022	174
2023	178
2024	183
2025	187
2026	192
Thereafter	621
Total lease payments	$ 1,624
Less implied interest	(428)
Total	$ 1,196

[1]The New Chesterbrook Lease is not included in the table above given its lease commencement date for accounting purposes is December 1, 2021. The New Chesterbrook lease has an initial lease term of 5.25 years from the lease commencement date and annual base rent is approximately $0.2 million.

9. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities as of September 30, 2021 and December 31, 2020 consisted of the following (in thousands):

	As of	
	September 30, 2021	December 31, 2020
Research and development	$ 7,425	$ 4,939
Compensation and benefits	3,436	3,119
General and administrative	1,364	771
Sales and marketing	360	31
Commercial operations	1,993	1,913
Royalty payment	653	—
Lease liability, current	219	426
Other	10	111
Total accrued expenses and other current liabilities	$ 15,460	$ 11,310

10. Notes Payable

Overview

On June 4, 2021, the Company entered into a $35.0 million Loan Agreement with Horizon Technology Finance Corporation (“Horizon”) and Powerscourt Investments XXV, LP (“Powerscourt”, together with Horizon, the “Lenders”). In accordance with the Loan Agreement, $20.0 million of the $35.0 million was funded on the closing date (the “Initial Note”), with the remaining $15.0 million fundable upon the Company achieving certain predetermined milestones, which the Company met in the third quarter of 2021. On July 30, 2021, after achieving the predetermined milestones, the Company borrowed $10.0 million, which was evidenced by a second note payable (the “Second Note”). On September 29, 2021, after achieving the predetermined milestones, the Company borrowed the remaining $5.0 million, which was evidenced by a third note payable (the “Third Note”, and collectively with the Initial and Second Notes, the “Notes”).

Each advance under the Loan Agreement will mature 42 months from the first day of the month following the funding of the advance. Each advance accrues interest at a per annum rate of interest equal to 6.25% plus the prime rate, as reported in the Wall Street Journal (subject to a floor of 3.25%). The Loan Agreement provides for interest-only payments for each advance for the first 18 months, however the interest-only period was extended to 24 months as a result of the Company satisfying the Interest Only Extension Milestone (as defined in the Loan Agreement) in the third quarter of 2021. Thereafter, amortization payments will be payable in monthly installments of principal and interest through each advance's maturity date. Upon ten business days' prior written notice, the Company may prepay all of the outstanding advances by paying the entire principal balance and all accrued and unpaid interest, subject to prepayment charges of up to 3% of the then outstanding principal balance. Upon the earlier of (i) payment in full of the principal balance, (ii) an event of default, or (iii) the maturity date, the Company will pay an additional final payment of 3% of the principal loan amount to the Lenders.

Each advance of the loan is secured by a lien on substantially all of the assets of the Company, other than Intellectual Property and Excluded Collateral (in each case as defined in the Loan Agreement), and contains customary covenants and representations, including a financial reporting covenant and limitations on dividends, indebtedness, collateral, investments, distributions, transfers, mergers or acquisitions taxes, corporate changes, deposit accounts, and subsidiaries.

The events of default under the Loan Agreement include but are not limited to, failing to make a payment, breach of covenant, or occurrence of a material adverse change. If an event of default occurs, the Lenders are entitled to accelerate the loan amounts due, or take other enforcement actions. As of the filing date of this Quarterly Report on Form 10-Q, the Company was not aware of any breach of covenants nor received any notice of event of default from the Lenders.

On June 4, 2021, pursuant to the Loan Agreement, the Company issued warrants to the Lenders to purchase 403,844 shares of the Company's common stock with an exercise price of $2.60 (the "Warrants"). The Warrants are exercisable for ten years from the date of issuance. The Lenders may exercise the Warrants either by (a) cash or check or (b) through a net issuance conversion. The Warrants, which met equity classification, were recognized as a component of permanent stockholders' equity within additional paid-in-capital and were recorded at the issuance date using a relative fair value allocation method. The Company valued the Warrants at issuance, which resulted in a discount on the debt, and allocated the proceeds from the loan proportionately to the Notes and to the Warrants, of which $0.9 million was allocated to the Warrants.

For the nine months ended September 30, 2021, the Company incurred $2.1 million in debt issuance costs, including legal fees in connection with the Loan Agreement, fees paid directly to the lender, and other direct costs, of which $1.7 million were paid in the third quarter of 2021. All fees, warrants, and costs paid to the Lenders and all direct costs incurred by the Company are recognized as a debt discount and are amortized to interest expense using the effective interest method over the term of the loan. The Company did not incur any debt issuance costs for the three months ended September 30, 2021.

The effective interest rate of the Notes, including the accretion of the final payment, was 13.5% as of September 30, 2021.

Balance sheet information related to the note payable for the Notes is as follows (in thousands):

	As of		
	September 30, 2021	December 31, 2020	Maturity
Initial Note	20,600	—	January 2025
Second Note	10,300	—	February 2025
Third Note	5,150	—	April 2025
Notes payable, gross[1]	36,050	—	
Less: Unamortized debt discount and issuance costs	3,567	—	
Carrying value of notes payable, non-current	$ 32,483	$ —	

[1] Balance includes $1.1 million final payment fee for the Notes, which represents 3% of the principal loan amount.

As of September 30, 2021, the estimated future principal payments due on the Notes were as follows (in thousands):

	As of September 30, 2021
2021	$ —
2022	—
2023	10,278
2024	23,333
2025	2,439
Total principal payments[1]	$ 36,050

[1] Balance includes $1.1 million final payment fee, which represents 3% of the principal loan amount.

11. Capital Structure

Pursuant to the Company's amended and restated certificate of incorporation, the Company is authorized to issue two classes of stock, common stock and preferred stock. At September 30, 2021, the total number of shares of capital stock the Company was authorized to issue was 205,000,000 of which 200,000,000 was common stock and 5,000,000 was preferred stock. All shares of common and preferred stock have a par value of $0.001 per share.

Common Stock

Q3 2021 Financing

On September 17, 2021, the Company closed an underwritten public offering of 14,308,878 shares of its common stock for net proceeds of $29.0 million. Armistice, which is a significant stockholder of the Company and whose chief investment officer, Steven Boyd, and managing director, Keith Maher, currently serve on the Board of the Company, participated in the offering by purchasing 5,454,545 shares of common stock, on the same terms as all other investors. Certain affiliates of Nantahala Capital Management LLC (collectively, "Nantahala"), which beneficially owned greater than 5% of the Company's outstanding common stock at the time of the offering, participated in the offering on the same terms as all other investors.

At-the-Market Offering Program

In July 2021, the Company entered into an "at-the-market" sales agreement with Cantor Fitzgerald & Co. and RBC Capital Markets, LLC (together, the "Agents"), pursuant to which the Company may sell from time to time, shares of its common stock having an aggregate offering price of up to $50.0 million through the Agents. In August 2021, the Company sold 2.0 million shares of common stock under the ATM Program for net proceeds of approximately $5.3 million.

Q2 2021 Debt Financing Agreement

As part of the Loan Agreement entered into in the second quarter of 2021, on June 4, 2021, the Company issued warrants to Horizon and Powerscourt to purchase 403,844 shares of the Company's common stock with an exercise price of $2.60. The warrants are exercisable for ten years from the date of issuance. Refer to Note 10 for additional information.

Q1 2021 Financing

In January 2021, the Company closed an underwritten public offering of 13,971,889 shares of its common stock and 1,676,923 pre-funded warrants for net proceeds of $37.7 million. Armistice participated in the offering by purchasing 2,500,000 shares of common stock, on the same terms as all other investors. Nantahala participated in the offering by purchasing 1,400,000 shares of common stock, on the same terms as all other investors.

Nantahala also purchased the pre-funded warrants to purchase up to an aggregate of 1,676,923 shares of common stock at a purchase price of $2.599, which represents the per share public offering price for the common stock less the $0.001 per share exercise price for each pre-funded warrant.

The pre-funded warrants are exercisable at any time after their original issuance at the option of each holder, in such holder's discretion, by (i) payment in full in immediately available funds for the number of shares of common stock purchased upon such exercise or (ii) a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common

stock determined according to the formula set forth in the pre-funded warrant. A holder will not be entitled to exercise any portion of any pre-funded warrant if the holder's ownership of the Company's common stock would exceed 9.99% following such exercise.

In the event of certain fundamental transactions, the holders of the pre-funded warrants will be entitled to receive upon exercise of the pre-funded warrants the kind of amounts of securities, cash or other property that the holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction without regard to any limitations on exercise contained in the pre-funded warrants.

The pre-funded warrants were classified as a component of permanent stockholders' equity within additional paid-in capital and were recorded at the issuance date using a relative fair value allocation method. The pre-funded warrants are equity classified because they (i) are freestanding financial instruments that are legally detachable and separately exercisable from the equity instruments, (ii) are immediately exercisable, (iii) do not embody an obligation for the Company to repurchase its shares, (iv) permit the holders to receive a fixed number of shares of common stock upon exercise, (v) are indexed to the Company's common stock and (vi) meet the equity classification criteria. In addition, such pre-funded warrants do not provide any guarantee of value or return. The Company valued the pre-funded warrants at issuance, concluding that their sales price approximated their fair value, and allocated net proceeds from the sale proportionately to the common stock and pre-funded warrants, of which $4.4 million was allocated to the pre-funded warrants and recorded as a component of additional paid-in capital.

2020 Financings

On June 11, 2020, the Company closed an underwritten public offering of15,180,000 shares of its common stock for net proceeds of approximately $85.4 million. Armistice participated in the offering by purchasing 2,000,000 shares of common stock, on the same terms as all other investors. Additionally, certain of the Company's officers participated in the offering by purchasing an aggregate of 110,000 shares of common stock, on the same terms as all other investors.

On March 17, 2020, the Company entered into a securities purchase agreement with Armistice pursuant to which the Company sold1,951,219 shares of the Company's common stock for net proceeds of approximately $3.9 million.

On February 6, 2020, the Company closed a registered direct offering with certain institutional investors for the sale by the Company of1,306,282 shares of the Company's common stock for net proceeds of approximately $5.1 million. Armistice participated in the offering by purchasing1,256,282 shares of common stock from the Company, on the same terms as all other investors.

Aevi Merger

On February 3, 2020, under the terms of the Aevi Merger noted above in Note 6, the Company issued approximately3.9 million shares of common stock.

Common Stock Warrants

At September 30, 2021, the following common stock warrants were outstanding:

Number of common shares underlying warrants	Exercise price per share	Expiration date
2,380	$ 8.68	May 2022
4,000,000	$ 12.50	June 2024
1,676,923	$ 0.001	—
403,844	$ 2.60	June 2031
6,083,147		

Convertible Preferred Stock

On December 26, 2018, the Company filed a Certificate of Designation of Preferences of Series B Non-Voting Convertible Preferred Stock ("Series B Convertible Preferred Stock" or "convertible preferred stock") of Avalo Therapeutics, Inc. (the "Certificate of Designation of the Series B Preferred Stock") classifying and designating the rights, preferences and privileges of the Series B Convertible Preferred Stock. The Certificate of Designation of the Series B Convertible Preferred Stock authorized 2,857,143 shares of convertible preferred stock. The Series B Convertible Preferred Stock converted to shares of common stock on a 1-for-5 ratio and has the same rights, preferences, and privileges as common stock other than it held no voting rights. During the first quarter of 2020,

the holder of the Series B Preferred Stock, Armistice, converted 1,600,000 shares of the convertible preferred stock into 8,000,000 shares of Avalo's common stock. In April 2021, Armistice converted the remaining 1,257,143 shares of Series B Convertible Preferred Stock into 6,285,715 shares of Avalo's common stock. As of September 30, 2021, the Company had no preferred stock outstanding.

12. Stock-Based Compensation

2016 Equity Incentive Plan

On April 5, 2016, the Company's board of directors adopted the 2016 Equity Incentive Plan (the "2016 Plan") as the successor to the 2015 Omnibus Plan (the "2015 Plan"). The 2016 Plan was approved by the Company's stockholders and became effective on May 18, 2016 (the "2016 Plan Effective Date"). Upon the 2016 Plan Effective Date, the 2016 Plan reserved and authorized up to 600,000 additional shares of common stock for issuance, as well as 464,476 unallocated shares remaining available for grant of new awards under the 2015 Plan. An Amended and Restated 2016 Equity Incentive Plan (the "2016 Amended Plan") was approved by the Company's stockholders in May 2018, which increased the share reserve by an additional 1.4 million shares. A Second Amended and Restated 2016 Equity Incentive Plan (the "2016 Second Amended Plan") was approved by the Company's stockholders in August 2019, which increased the share reserve by an additional 850,000 shares. A Third Amended and Restated Equity Incentive Plan (the "2016 Third Amended Plan") was approved by the Company's stockholders in June 2020 which increased the share reserve by an additional 2,014,400 shares. During the term of the 2016 Third Amended Plan, the share reserve will automatically increase on the first trading day in January of each calendar year ending on (and including) January 1, 2026, by an amount equal to 4% of the total number of outstanding shares of common stock of the Company on the last trading day in December of the prior calendar year. As of September 30, 2021, there were 1,748,433 shares available for future issuance under the 2016 Third Amended Plan.

Option grants expire after ten years. Employee options typically vest over three or four years. Employees typically receive a new hire option grant, as well as an annual grant in the first or second quarter of each year. Options granted to directors typically vest either immediately or over a period of one or three years. Directors may elect to receive stock options in lieu of board compensation, which vest immediately. For stock options granted to employees and non-employee directors, the estimated grant date fair market value of the Company's stock-based awards is amortized ratably over the individuals' service periods, which is the period in which the awards vest. Stock-based compensation expense includes expense related to stock options, restricted stock units and employee stock purchase plan shares. The amount of stock-based compensation expense recognized for the three and nine months ended September 30, 2021 and 2020 was as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Research and development	$ 480	$ 384	$ 1,244	$ 1,156
General and administrative	1,171	972	4,720	3,959
Sales and marketing	107	92	316	234
Total stock-based compensation	$ 1,758	$ 1,448	$ 6,280	$ 5,349

In June 2021, the Company's former Chairman of the Board resigned from the Board. The Company and the former Chairman subsequently entered into an agreement for him to serve as a strategic advisor to the Board and the Company, including serving on the Company's Scientific Advisory Board, for a period of at least one year. As consideration for these services, the Company modified his outstanding stock option awards to allow them to continue to vest during the term during which he serves as a strategic advisor. Additionally, any option award previously granted was amended to extend the exercisability period. As a result of the modification, the Company recognized $1.4 million of compensation cost, $1.0 million of which related to options with market-based vesting conditions (which were fully vested prior to the modification) and $0.4 million of which related to options with service-based vesting conditions in the second quarter of 2021. This expense was recognized in general and administrative expenses. At September 30, 2021, there was $0.2 million of unrecognized compensation cost related to the modification of service-based options that will be recognized over a weighted-average period of 0.7 years.

Stock options with service-based vesting conditions

The Company has granted awards that contain service-based vesting conditions. The compensation cost for these options is recognized on a straight-line basis over the vesting periods. A summary of option activity for the nine months ended September 30, 2021 is as follows:

	Options Outstanding			
	Number of shares	Weighted average exercise price per share	Weighted average grant date fair value per share	Weighted average remaining contractual term (in years)
Balance at December 31, 2020	8,830,674	$ 3.95	$ 2.36	7.7
Granted	5,017,690	$ 3.24	$ 2.17	
Exercised	(580,617)	$ 2.70	$ 1.74	
Forfeited	(439,341)	$ 3.55	$ 2.27	
Expired	(354,994)	$ 4.53	$ 2.69	
Balance at September 30, 2021	12,473,412	$ 3.72	$ 2.30	8.4
Exercisable at September 30, 2021	4,437,524	$ 4.20	$ 2.41	7.4

In March 2021, the Company granted its newly appointed Chief Financial Officer options with service-based vesting conditions to purchase 0.5 million shares of common stock as an inducement option grant, pursuant to NASDAQ Listing Rule 5635(c)(4). In January 2021, the Company granted 2.7 million options with service-based vesting conditions to its employees as part of its annual stock option award.

In March 2020, our Chief Executive Officer entered into an amended employment agreement in which his salary in cash was reduced to $5,568 (the "Reduction"), which represents the minimum exempt annual salary. In consideration for the Reduction, on a quarterly basis, the Company grants stock options, which vest immediately, for the purchase of a number of shares of the Company's common stock with a total value (based on the Black-Scholes valuation methodology) based on a pro rata total annual value of the foregone salary.

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. As of September 30, 2021, the aggregate intrinsic value of options outstanding was $0.2 million. The aggregate intrinsic value of options currently exercisable as of September 30, 2021 was $0.2 million. There were 2,466,684 options that vested during the nine months ended September 30, 2021 with a weighted average exercise price of $3.64 per share. The total grant date fair value of shares which vested during the nine months ended September 30, 2021 was $5.6 million.

The Company recognized stock-based compensation expense of $1.7 million and $5.0 million related to stock options with service-based vesting conditions for the three and nine months ended September 30, 2021, respectively. At September 30, 2021, there was $ 14.8 million of total unrecognized compensation cost related to unvested service-based vesting condition awards. The unrecognized compensation cost is expected to be recognized over a weighted-average period of 2.8 years.

Stock-based compensation assumptions

The following table shows the assumptions used to compute stock-based compensation expense for stock options with service-based vesting conditions granted under the Black-Scholes valuation model for the nine months ended September 30, 2021:

Service-based options	
Expected annual dividend yield	—%
Expected stock price volatility	73.0% - 86.5%
Expected term of option (in years)	0.76 - 6.25
Risk-free interest rate	0.07% - 1.23%

Stock options with market-based vesting conditions

The following table summarizes the Company's market-based option activity for the nine months ended September 30, 2021 (in thousands except, for share amounts):

	Options Outstanding			
	Number of shares	Weighted average exercise price per share	Weighted average remaining contractual term (in years)	Aggregate intrinsic value (1)
Balance at December 31, 2020	1,000,000	$ 3.29	9.5	$ 65
Granted	—	$ —		
Balance at September 30, 2021	1,000,000	$ 3.29	2.7	$ —
Exercisable at September 30, 2021	1,000,000			$ —

(1) The aggregate intrinsic value in the above table represents the total pre-tax amount that a participant would receive if the option had been exercised on the last day of the respective fiscal period. Options with a market value less than its exercise value are not included in the intrinsic value amount.

Restricted Stock Units

The Company measures the fair value of the restricted stock units using the stock price on the date of the grant. The restricted shares typically vest annually over a four-year period beginning on the first anniversary of the award. The following table summarizes the Company's restricted stock unit ("RSU") activity for the nine months ended September 30, 2021:

	RSUs Outstanding	
	Number of shares	Weighted average grant date fair value
Unvested RSUs at December 31, 2020	155,833	$ 4.91
Vested	(77,917)	
Unvested RSUs at September 30, 2021	77,916	$ 4.91

Employee Stock Purchase Plan

On April 5, 2016, the Company's board of directors approved the 2016 Employee Stock Purchase Plan (the "ESPP"). The ESPP was approved by the Company's stockholders and became effective on May 18, 2016 (the "ESPP Effective Date").

Under the ESPP, eligible employees can purchase common stock through accumulated payroll deductions at such times as are established by the administrator. The ESPP is administered by the compensation committee of the Company's board of directors. Under the ESPP, eligible employees may purchase stock at 85% of the lower of the fair market value of a share of the Company's common stock (i) on the first day of an offering period or (ii) on the purchase date. Eligible employees may contribute up to 15% of their earnings during the offering period. The Company's board of directors may establish a maximum number of shares of the Company's common stock that may be purchased by any participant, or all participants in the aggregate, during each offering or offering period. Under the ESPP, a participant may not accrue rights to purchase more than $25,000 of the fair market value of the Company's common stock for each calendar year in which such right is outstanding.

Upon the ESPP Effective Date, the Company reserved and authorized up to 500,000 shares of common stock for issuance under the ESPP. On January 1 of each calendar year, the aggregate number of shares that may be issued under the ESPP shall automatically increases by a number equal to the lesser of (i) 1% of the total number of shares of the Company's capital stock outstanding on December 31 of the preceding calendar year, and (ii) 500,000 shares of the Company's common stock, or (iii) a number of shares of the Company's common stock as determined by the Company's board of directors or compensation committee. The number of shares were increased by 500,000 on January 1, 2021. As of September 30, 2021, 1,836,622 shares remained available for issuance.

In accordance with the guidance in ASC 718-50, *Employee Share Purchase Plans*, the ability to purchase shares of the Company's common stock at the lower of the offering date price or the purchase date price represents an option and, therefore, the ESPP is a compensatory plan under this guidance. Accordingly, stock-based compensation expense is determined based on the option's grant-date fair value and is recognized over the requisite service period of the option. The Company used the Black-Scholes valuation model and recognized stock-based compensation expense of $81 thousand and $170 thousand for the three and nine months ended September 30, 2021, respectively.

13. Income Taxes

For the nine months ended September 30, 2021 and 2020, the Company recognized an income tax benefit of $0.2 million and $2.6 million, respectively. The tax benefit recognized for the nine months ended September 30, 2020 was a result of a tax law change signed into law as part of the Coronavirus Aid, Relief and Economic Security Act ("CARES Act"), which allowed the Company to carry back certain losses for taxes paid in fiscal year 2017 and thus resulted in a refund claim. The 2021 income tax benefit was a result of the updated estimate of interest receivable and abatement of penalties on the refund claim, as the final federal refund payment was received from the Internal Revenue Service in 2021. The Company recognized a minimal income tax expense for the three months ended September 30, 2021 and 2020.

14. Commitments and Contingencies

Litigation

Litigation - General

The Company may become party to various contractual disputes, litigation, and potential claims arising in the ordinary course of business. The Company currently does not believe that the resolution of such matters will have a material adverse effect on its financial position or results of operations except as otherwise disclosed in this report.

Karbinal Royalty Make-Whole Provision

In 2018, in connection with the acquisition of Avadel's pediatric products, the Company entered into a supply and distribution agreement (the "Karbinal Agreement") with TRIS Pharma Inc. ("TRIS"). As part of the Karbinal Agreement, the Company had an annual minimum sales commitment, which is based on a commercial year that spans from August 1 through July 31, of 70,000 units through 2025. The Company was required to pay TRIS a royalty make whole payment ("Make-Whole Payments") of $30 for each unit under the 70,000 units annual minimum sales commitment through 2025.

As a part of the Aytu Divestiture, which closed on November 1, 2019, the Company assigned all payment obligations, including the Make-Whole Payments, under the Karbinal Agreement (collectively, the "TRIS Obligations") to Aytu. However, under the original license agreement, the Company could ultimately be liable for the TRIS Obligations to the extent Aytu fails to make the required payments. The future Make-Whole Payments to be made by Aytu are unknown as the amount owed to TRIS is dependent on the number of units sold.

Possible Future Milestone Payments for In-Licensed Compounds

General

The Company is a party to license and development agreements with various third parties, which contain future payment obligations such as royalties and milestone payments (discussed further below). The Company recognizes a liability (and related expense) for each milestone if and when such milestone is probable and can be reasonably estimated. As typical in the biotechnology industry, each milestone has its own unique risks that the Company evaluates when determining the probability of achieving each milestone and the probability of success evolves over time as the programs progress and additional information is obtained. The Company considers numerous factors when evaluating whether a given milestone is probable including (but not limited to) the regulatory pathway, development plan, ability to dedicate sufficient funding to reach a given milestone and the probability of success.

AVTX-002 KKC License Agreement

On March 25, 2021, the Company entered into a license agreement with Kyowa Kirin Co., Ltd. ("KKC") for exclusive worldwide rights to develop, manufacture and commercialize AVTX-002, KKC's first-in-class fully human anti-LIGHT (TNFSF14) monoclonal antibody for all indications (the "KKC License Agreement"). The KKC License Agreement replaced the Amended and Restated Clinical Development and Option Agreement between the Company and KKC dated May 28, 2020.

Under the KKC License Agreement, the Company paid KKC an upfront license fee equal to $10.0 million. The Company is also required to pay KKC up to $112.5 million based on the achievement of specified development and regulatory milestones. Upon commercialization, the Company is required to pay KKC sales-based milestones aggregating up to $75 million tied to the achievement of annual net sales targets.

Additionally, the Company is required to pay KKC royalties during a country-by-country royalty term equal to a mid-teen percentage of annual net sales. The Company is required to pay KKC a double digit percentage (less than 30%) of the payments that the Company receives from sublicensing of its rights under the KKC License Agreement, subject to certain exclusions. Avalo is responsible for the development and commercialization of AVTX-002 in all indications worldwide (other than the option in the KKC License Agreement that, upon exercise by KKC, allows KKC to develop, manufacture and commercialize AVTX-002 in Japan).

The Company recognized the upfront license fee of $10.0 million within research and development expenses for the nine months ended September 30, 2021 and made the payment in April 2021. There has been no cumulative expense recognized as of September 30, 2021 related to the milestones under this license agreement. The Company will continue to monitor the milestones at each reporting period.

AVTX-006 Astellas License Agreement

The Company has an exclusive license agreement with OSI Pharmaceuticals, LLC, an indirect wholly owned subsidiary of Astellas Pharma, Inc. ("Astellas"), for the worldwide development and commercialization of the novel, second generation mTORC1/2 inhibitor (which we refer to as AVTX-006). Under the terms of the license agreement, there was an upfront license fee of $0.5 million. The Company is required to pay Astellas up to $5.5 million based on the achievement of specified development and regulatory milestones. The Company is also required to pay Astellas a tiered mid-to-high single digit percentage of the payments that Avalo receives from sublicensing of its rights under the Astellas license agreement, subject to certain exclusions. Upon commercialization, the Company is required to pay Astellas royalties during a country-by-country royalty term equal to a tiered mid-to-high single digit percentage of annual net sales. Avalo is fully responsible for the development and commercialization of the program.

For the nine months ended September 30, 2021, the Company recognized a $0.5 million development milestone payment within research and development expenses. There has been $0.5 million of cumulative expense recognized as of September 30, 2021 related to the milestones under this license agreement. The Company will continue to monitor the remaining milestones at each reporting period.

AVTX-007 AstraZeneca License Agreement

The Company has an exclusive global license with Medimmune Limited, a subsidiary of AstraZeneca plc ("AstraZeneca"), to develop and commercialize a fully human, anti-IL-18 monoclonal antibody (which we refer to as AVTX-007). Under the terms of the license agreement, there was an upfront license fee of $6.0 million in cash and equity. The Company is required to pay AstraZeneca up to $71.5 million based on the achievement of certain development and regulatory milestones. Upon commercialization, the Company is required to pay AstraZeneca sales-based milestone payments aggregating up to $90.0 million tied to the achievement of annual net sales targets. Additionally, the Company is also required to pay AstraZeneca royalties during a country-by-country royalty term equal to a tiered low double digit percentage of annual net sales. Avalo is fully responsible for the development and commercialization of the program.

No expense related to this license agreement was recognized in the nine months ended September 30, 2021. There has been $1.5 million of cumulative expense recognized as of September 30, 2021 related to the milestones under this license agreement. The Company will continue to monitor the remaining milestones at each reporting period.

AVTX-008 Sanford Burnham Prebys License Agreement

On June 22, 2021, the Company entered into an Exclusive Patent License Agreement with Sanford Burnham Prebys Medical Discovery Institute (the "Sanford Burnham Prebys License Agreement") under which the Company obtained an exclusive license to a portfolio of issued patents and patent applications covering an immune checkpoint program (which we refer to as AVTX-008).

Under the terms of the agreement, the Company incurred an upfront license fee of $0.4 million, as well as patent costs of $0.5 million. The Company is required to pay Sanford Burnham Prebys up to $24.2 million based on achievement of specified development and regulatory milestones. Upon commercialization, the Company is required to pay Sanford Burnham Prebys sales-based milestone payments aggregating up to $50.0 million tied to annual net sales targets. Additionally, the Company is required to pay Sanford Burnham Prebys royalties during a country-by-country royalty term equal to a low-to-mid single digit percentage of annual net sales. The Company is also required to pay Sanford Burnham Prebys a tiered low-double digit percentage of the payments that Avalo receives from sublicensing of its rights under the Sanford Burnham Prebys license agreement, subject to certain exclusions. Avalo is fully responsible for the development and commercialization of the program.

The Company recognized the upfront license fee of $0.4 million within research and development expenses and the upfront patent expense of $0.5 million within general and administrative expenses for the nine months ended September 30, 2021. There has been no cumulative expense recognized as of September 30, 2021 related to the milestones under this license agreement. The Company will continue to monitor the milestones at each reporting period.

Possible Future Milestone Proceeds for Out-Licensed Compounds

AVTX-301 Out-License

On May 28, 2021, the Company out-licensed its rights in respect of its non-core asset, AVTX-301, to Alto. The Company initially in-licensed the compound from an affiliate of Merck & Co., Inc. ("Merck") in 2013.

Under the out-license agreement, the Company received a mid-six digit upfront payment from Alto. The Company is also eligible to receive up to $18.6 million based on the achievement of specified development, regulatory and commercial sale milestones. Additionally, the Company is entitled to a less than single digit percentage royalty based on annual net sales. Alto is fully responsible for the development and commercialization of the program.

Avalo recognized the upfront fee as license revenue for the nine months ended September 30, 2021. The Company has not recognized any milestones as of September 30, 2021.

AVTX-406 License Assignment

On June 9, 2021, the Company assigned its rights, title, interest, and obligations under an in-license covering its non-core asset, AVTX-406, to ES, a wholly-owned subsidiary of Armistice, which is a significant stockholder of the Company and whose chief investment officer, Steven Boyd, and managing director, Keith Maher, currently serve on the Board of the Company. The transaction with ES was approved in accordance with Avalo's related party transaction policy.

Under the assignment agreement, the Company received a low-six digit upfront payment from ES. The Company is also eligible to receive up to $5.0 million based on the achievement of specified development and regulatory milestones. Upon commercialization, the Company is eligible to receive sales-based milestone payments aggregating up to $20.0 million tied to annual net sales targets. ES is fully responsible for the development and commercialization of the program.

Avalo recognized the upfront fee as license revenue for the nine months ended September 30, 2021. The Company has not recognized any milestones as of September 30, 2021.

AVTX-501 Sale to Janssen

In August 2017, the Company sold its worldwide rights to AVTX-501 to Janssen Pharmaceuticals, Inc. ("Janssen") in exchange for initial gross proceeds of $25.0 million. The Company is also eligible to receive up to $20.0 million based on the achievement of specified development and regulatory milestones. Janssen is fully responsible for the development and commercialization of the program.

The Company has not recognized any milestones as of September 30, 2021.

AVTX-611 License Assignment

In August 2019, the Company assigned its rights, title, interest, and obligations under an in-license covering its non-core asset, AVTX-611, to ES, a wholly-owned subsidiary of Armistice, which is a significant stockholder of the Company and whose chief investment officer, Steven Boyd, and managing director, Keith Maher, currently serve on the Board of the Company.

Upon commercialization, the Company is eligible to receive sales-based milestone payments aggregating up to $20.0 million tied to annual net sales targets. ES is fully responsible for the development and commercialization of the program.

The Company has not recognized any milestones as of September 30, 2021.

Related Party and Acquisition Related Contingent Liabilities

AVTX-006 Royalty Agreement with Certain Related Parties

Prior to Avalo entering into the Aevi Merger, in July 2019, Aevi entered into a royalty agreement with Mike Cola, Avalo's current Chief Executive Officer, Joseph J. Grano, Jr., Kathleen Jane Grano, Joseph C. Grano, The Grano Children's Trust, Joseph C. Grano, trustee and LeoGroup Private Investment Access, LLC on behalf of Garry A. Neil, Avalo's current Chief Scientific Officer (collectively, the "Investors") in exchange for a one-time aggregate payment of $ 2.0 million (the "Royalty Agreement"). Collectively, the Investors will be entitled to an aggregate amount equal to a low-single digit percentage of the aggregate net sales of Astellas' second generation mTORC1/2 inhibitor, AVTX-006. At any time beginning three years after the date of the first public launch of AVTX-006, Avalo may exercise, at its sole discretion, a buyout option that terminates any further obligations under the Royalty Agreement in exchange for a payment to Investors of an aggregate of 75% of the net present value of the royalty payments. A majority of the independent members of the board of directors and the audit committee of Aevi approved the Royalty Agreement.

Avalo assumed this Royalty Agreement upon closing of the Aevi Merger and it is recorded as a royalty obligation within the Company's accompanying condensed consolidated balance sheet as of September 30, 2021. Because there is a significant related party relationship between the Company and the Investors, the Company has treated its obligation to make royalty payments under the Royalty Agreement as an implicit obligation to repay the funds advanced by the Investors. As the Company makes royalty payments in accordance with the Royalty Agreement, it will reduce the liability balance. At the time that such royalty payments become probable and estimable, and if such amounts exceed the liability balance, the Company will impute interest accordingly on a prospective basis based on such estimates, which will result in a corresponding increase in the liability balance.

Aevi Merger Possible Future Milestone Payments

A portion of the consideration for the Aevi Merger includes two future contingent development milestones worth up to an additional $6.5 million. The first milestone is the enrollment of a patient in a Phase 2 study related to AVTX-002 for use in pediatric onset Crohn's disease, AVTX-006 (any indication) or AVTX-007 (any indication) prior to February 3, 2022. If this milestone is met, the Company is required to make a milestone payment of $2.0 million. The second milestone is the receipt of a NDA approval for either AVTX-006 or AVTX-007 from the FDA on or prior to February 3, 2025. If this milestone is met, the Company is required to make a milestone payment of $ 4.5 million. All milestones are payable in either shares of the Company's common stock or cash, at the election of the Company.

The contingent consideration related to the development milestones will be recognized if and when such milestones are probable and can be reasonably estimated. As of the consummation of the Merger on February 3, 2020 and as of September 30, 2021, no contingent consideration related to the development milestone has been recognized. The Company will continue to monitor the development milestones at each reporting period.

Ichorion Asset Acquisition Possible Future Milestone Payments

In September 2018, the Company acquired Ichorion Therapeutics, Inc. including acquiring three compounds for inherited metabolic disorders known as CDGs (AVTX-801, AVTX-802 and AVTX-803) and one other preclinical compound. Consideration for the transaction included shares of Avalo common stock and three future contingent development milestones for the acquired compounds worth up to an additional $15.0 million. The first milestone is the first product being approved for marketing by the FDA on or prior to December 31, 2021. If this milestone is met, the Company is required to make a milestone payment of $6.0 million. The second milestone is the second product being approved for marketing by the FDA on or prior to December 31, 2021. If this milestone is met, the Company is required to make a milestone payment of $ 5.0 million. The third milestone is a protide molecule being approved by the FDA on or prior to December 31, 2023. If this milestone is met, the Company is required to make a milestone payment of $4.0 million. All milestones are payable in either shares of the Company's common stock or cash, at the election of the Company.

The contingent consideration related to the development milestones will be recognized if and when such milestones are probable and can be reasonably estimated. As of September 30, 2021, no contingent consideration related to the development milestone has been recognized. The Company will continue to monitor the development milestones at each reporting period.

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

This Quarterly Report on Form 10-Q and the information incorporated herein by reference contain forward-looking statements that involve a number of risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. Forward-looking statements can be identified by the use of forward-looking words such as "believes," "expects," "may," "might," "will," "plans," "intends," "estimates," "could," "should," "would," "continue," "seeks," "aims," "projects," "predicts," "pro forma," "anticipates," "potential" or other similar words (including their use in the negative), or by discussions of future matters such as the development of product candidates or products, technology enhancements, possible changes in legislation, and other statements that are not historical. Although our forward-looking statements reflect the good faith judgment of our management, these statements can only be based on facts and factors currently known by us. Consequently, forward-looking statements are inherently subject to risks and uncertainties, and actual results and outcomes may differ materially from results and outcomes discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those below and elsewhere in this Quarterly Report on Form 10-Q, particularly in Part II – Item 1A, "Risk Factors," as well as in our Annual Report on Form 10-K filed with the Securities and Exchange Commission, or SEC, on March 8, 2021, and in our other filings with the SEC. 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. Unless otherwise required by applicable law, we do not undertake, and we specifically disclaim any obligation to update any forward-looking statements to reflect occurrences, developments, unanticipated events or circumstances after the date of such statement.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited financial statements and related notes that appear in Item 1 of this Quarterly Report on Form 10-Q and with our audited financial statements and related notes for the year ended December 31, 2020 appearing in our Annual Report on Form 10-K filed with the SEC on March 8, 2021.

Overview

Avalo Therapeutics, Inc. (the "Company" or "Avalo") is a leading clinical-stage precision medicine company that discovers, develops, and commercializes targeted therapeutics for patients with significant unmet clinical need in immunology, immuno-oncology, and rare genetic diseases. We have built a diverse portfolio of innovative therapies to deliver meaningful medical impact for patients in urgent need. Our clinical candidates commonly have a proven mechanistic rationale, biomarkers and/or an established proof-of-concept to expedite and increase the probability of success.

Management's primary evaluation of the success of the Company is the ability to progress its pipeline assets forward towards commercialization or opportunistically out-licensing rights to indications or geographies. This success depends not only on the operational execution of the programs, but also the ability to secure sufficient funding to support the programs. We believe the ability to achieve the anticipated milestones (as presented in the Research and Development milestone chart below), represents our most immediate evaluation points.

We have made significant progress in 2021 toward our key goal of advancing the pipeline as highlighted by the data release of the first cohort of the AVTX-002 Phase 1b trial in Crohn's Disease, data release of the first cohort of the AVTX-002 Phase 2 proof-of-concept trial in COVID-19 ARDS and subsequent receipt of fast-track designation ("FTD"), completion of the first cohort of the AVTX-007 Phase 1b trial in Multiple Myeloma, receipt of FTD for AVTX-803 and enrollment of the first patient in the AVTX-007 Phase 1b open-label proof-of-concept trial in AOSD. We also believe our licensing activity during the first half of 2021, including in-licenses of immunology and immuno-oncology assets (including the expanded license agreement for AVTX-002 and the license agreement for AVTX-008) and out-licenses of non-core assets, enhances our focus on the development of innovative therapies in areas of high unmet need within the fields of immunology, immuno-oncology, and rare genetic disorders. Additionally, we have executed a combination of debt and equity financings in 2021 for total net proceeds of approximately $105 million, to strengthen and extend our financial resources to advance our clinical pipeline towards key development milestones.

Recent Developments

In August 2021, the Company changed its corporate name change from Cerecor Inc. to Avalo Therapeutics, Inc. by filing a Certificate of Amendment to our Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware and merged certain wholly-owned subsidiaries into the Company to consolidate its corporate structure. The name change underscores the Company's transition to developing innovative targeted therapies in immunology, immuno-oncology, and rare genetic diseases.

In September 2021, the Company closed an underwritten public offering of 14,308,878 shares of common stock for net proceeds of approximately $29.0 million (the "September Offering").

During the third quarter of 2021, the Company received $15.0 million as a result of completing its second and third drawdowns under its previously announced $35.0 million venture debt financing agreement (the "Loan Agreement") with Horizon Technology Finance Corporation and Powerscourt Investments XXV, LP. With the closing of the second and third tranches, the Company has received the full $35.0 million under its debt financing agreement.

In October 2021, the board of directors of the Company appointed Keith Maher, MD, to the Board pursuant to the right of Armistice to appoint two directors to the board of directors. Dr. Maher is employed by Armistice, which is a significant stockholder of the Company and whose chief investment officer, Steven Boyd, currently serves on the board of directors of the Company.

Research and Development

The following chart summarizes key information about our clinical-stage pipeline and anticipated research & development milestones:

Program	Mechanism of Action	Lead Indication	Designation	Clinical Development Stage			Anticipated Milestone
				Early-Stage	Mid-Stage	Late-Stage	
Immunology/Immuno-oncology							
AVTX-002	Anti-LIGHT mAb	COVID-19 ARDS	Fast Track				Received Fast Track Designation*
		Inflammatory bowel disease	–				Crohn's Top-line Data 4Q 2021 UC Top-line Data 1H 2022
AVTX-007	Anti-IL-18 mAb	Still's disease	–				Initial Data 1Q 2022
		Multiple myeloma	–				Top-line Data 4Q 2021
Rare Genetic Diseases							
AVTX-006	Dual mTOR inhibitor	Complex lymphatic malformations	ODD RPDD PRV eligible				Initial Data 1Q 2022
AVTX-801	D-Galactose replacement	PGM1-CDG	ODD RPDD PRV eligible Fast Track				Pivotal Trial Data 2022
AVTX-802	D-Mannose replacement	MPI-CDG					Pivotal Trial Data 2022
AVTX-803	L-Fucose replacement	LAD II (SLC35C1-CDG)					Pivotal Trial Data 1H 2022

*Avalo remains in dialogue with the FDA and is working through feedback to determine the trial design for a registrational study and accompanying timelines, including the potential expansion to a larger patient population in broader ARDS.

ARDS, acute respiratory distress syndrome; CDG, congenital disorder of glycosylation; IL, interleukin; IND, Investigational New Drug; LAD, leukocyte adhesion deficiency; mAb, monoclonal antibody; MPI, mannose phosphate isomerase; mTOR, mammalian target of rapamycin; ODD, orphan drug designation; PGM1, phosphoglucomutase 1; PRV, priority review voucher; RPDD, rare pediatric disease designation.

Our Strategy

Our strategy for increasing stockholder value includes:

- Advancing our pipeline of compounds through development and to regulatory approval;
- Acquiring or licensing rights to targeted, complementary differentiated preclinical and clinical stage compounds;
- Developing the go-to-market strategy to quickly and effectively market, launch, and distribute each of our compounds that receive regulatory approval; and
- Opportunistically out-licensing rights to indications or geographies.

Results of Operations

Comparison of the Three Months Ended September 30, 2021 and 2020

Product Revenue, net

Net product revenue was $1.4 million for the three months ended September 30, 2021, which was largely consistent with the net product revenue for the three months ended September 30, 2020 of $1.1 million.

Aytu BioScience, Inc. ("Aytu"), to which the Company sold its rights, title and interest in assets relating to certain commercialized products in 2019, managed Millipred® commercial operations through June 30, 2021 pursuant to transition service agreements. In

the third quarter of 2021, the Company finalized its trade and distribution channel to allow it to control third party distribution and began managing Millipred® commercial operations at that time.

Cost of Product Sales

Cost of product sales were $0.9 million for the three months ended September 30, 2021, compared to $0.1 million for the three months ended September 30, 2020. The increase was driven by the Company's requirement to pay its supplier fifty percent of the net profit of the Millipred® product following each calendar quarter beginning July 1, 2021, subject to a $0.5 million quarterly minimum payment. We expect cost of product sales to continue to increase as compared to historic periods due to the net profit share.

Research and Development Expenses

The following table summarizes our research and development expenses for the three months ended September 30, 2021 and 2020 (in thousands):

	Three Months Ended September 30,	
	2021	2020
Preclinical expenses	$ 1,485	$ 1,105
Clinical expenses	2,658	2,768
CMC expenses	3,366	3,200
Internal expenses:		
Salaries, benefits and related costs	2,499	1,377
Stock-based compensation expense	480	384
Other	63	38
	$ 10,551	$ 8,872

Research and development expenses increased $1.7 million for the three months ended September 30, 2021 compared to the same period in 2020. The overall increase was driven by an increase in research and development activities as the Company continues to develop its maturing pipeline assets.

Salaries, benefits and related costs increased by $1.1 million mainly due to an increase in headcount to grow our research and development activities as we continue to invest in our maturing pipeline.

Research and development expense is likely to continue to outpace historic periods as the Company advances its maturing pipeline.

General and Administrative Expenses

The following table summarizes our general and administrative expenses for the three months ended September 30, 2021 and 2020 (in thousands):

	Three Months Ended September 30,	
	2021	2020
Salaries, benefits and related costs	$ 1,299	$ 957
Legal, consulting and other professional expenses	2,425	2,389
Stock-based compensation expense	1,172	972
Other	292	255
	$ 5,188	$ 4,573

General and administrative expenses increased $0.6 million for the three months ended September 30, 2021 compared to the same period in 2020. The increase was driven by a $0.3 million increase in salaries, benefits and related costs coupled with a $0.2 million increase in stock-based compensation expense, both of which are related to increased headcount to support the Company's expanded research and development efforts. Overall, legal, consulting, and other professional expenses were largely consistent period over period. For the three months ended September 30, 2021, professional expenses increased mainly as a result of increased information technology services and consulting costs, however such increases were mostly offset by the recognition of a prior period legal settlement that did not repeat in the current period.

General and administrative expense is likely to continue to outpace historic periods as a result of the increased infrastructure to support the Company's maturing research and development efforts.

Sales and Marketing Expenses

The following table summarizes our sales and marketing expenses for the three months ended September 30, 2021 and 2020 (in thousands):

	Three Months Ended September 30,	
	2021	2020
Salaries, benefits and related costs	$ 135	$ 214
Stock-based compensation expense	107	92
Advertising and marketing expense	482	141
Other	14	15
	$ 738	$ 462

Sales and marketing expenses primarily consist of expenses related to initiatives to support the go-to-market strategy of our pipeline assets. Sales and marketing expenses increased $0.3 million for the three months ended September 30, 2021 compared to the same period in 2020, which was largely driven by advertising and marketing expense incurred in the current period related to the corporate name change to Avalo Therapeutics, Inc.

Amortization Expense

The following table summarizes our amortization expense for the three months ended September 30, 2021 and 2020 (in thousands):

	Three Months Ended September 30,	
	2021	2020
Amortization of intangible assets	$ 428	$ 404

Amortization expense, which relates to the amortization of an intangible asset acquired as part of a previous acquisition and an assembled workforce acquired as part of a previous merger, was largely consistent for the three months ended September 30, 2021 and 2020.

We expect amortization expense to decrease in future periods as the intangible asset and assembled workforce acquired will be fully amortized in the fourth quarter of 2021 and the first quarter of 2022, respectively.

Other (Expense) Income, Net

The following table summarizes our other (expense) income, net for the three months ended September 30, 2021 and 2020 (in thousands):

	Three Months Ended September 30,	
	2021	2020
Other (expense) income, net	(15)	19
Interest expense, net	(985)	—
	$ (1,000)	$ 19

Other expense, net was $1.0 million for the three months ended September 30, 2021, compared to minimal other income, net in the prior period. The change was mainly driven by the recognition of interest expense of $1.0 million for the three months ended September 30, 2021 related to the Loan Agreement entered into in June 2021. Pursuant to the agreement, $20.0 million was funded on the close date in June 2021. The second $10.0 million and the third $5.0 million tranches of the loan were funded in July 2021 and September 2021, respectively. Given the second and third tranches were funded in the third quarter of 2021, we recognized a partial period of interest expense in the current period. We expect interest expense to increase in future periods as a result of recognizing a full period of interest.

Income Tax Expense

The following table summarizes our income tax expense for the three months ended September 30, 2021 and 2020 (in thousands):

	Three Months Ended September 30,	
	2021	2020
Income tax expense	$ 8	$ 3

The Company recognized minimal income tax expense for both the three months ended September 30, 2021 and 2020.

Comparison of the Nine Months Ended September 30, 2021 and 2020

Product Revenue, net

Net product revenue was $4.6 million for the nine months ended September 30, 2021, which was largely consistent with the net product revenue for the nine months ended September 30, 2020 of $5.2 million.

Aytu managed Millipred® commercial operations through June 30, 2021 pursuant to transition service agreements. In the third quarter of 2021, the Company finalized its trade and distribution channel to allow it to control third party distribution and began managing Millipred® commercial operations at that time.

License Revenue, net

License revenue was $0.6 million for the nine months ended September 30, 2021, which relates to upfront fees received as a result of the out-license and assignment, respectively, of the Company's rights to its non-core neurology pipeline assets, AVTX-301 and AVTX-406 to Alto Neuroscience, Inc. and ES Therapeutics, LLC ("ES"), respectively. ES is a wholly-owned subsidiary of Armistice, which is a significant stockholder of the Company and whose chief investment officer, Steven Boyd, and managing director, Keith Maher, currently serve on the Board of the Company. The transaction with ES was approved in accordance with Avalo's related party transaction policy.

Avalo is eligible to receive additional payments upon achievement of specified development, regulatory and sales-based milestones for both AVTX-301 and AVTX-406 and is also entitled to royalty payments based on net sales of AVTX-301.

Cost of Product Sales

Cost of product sales was $1.1 million for the nine months ended September 30, 2021, compared to $0.2 million for the nine months ended September 30, 2020. The increase was primarily driven by the Company's requirement to pay its supplier fifty percent of the net profit of the Millipred® product following each calendar quarter beginning July 1, 2021, subject to a $0.5 million quarterly minimum payment. We expect cost of product sales to continue to increase as compared to historic periods due to the net profit share.

Research and Development Expenses

The following table summarizes our research and development expenses for the nine months ended September 30, 2021 and 2020 (in thousands):

	Nine Months Ended September 30,	
	2021	2020
Preclinical expenses	$ 5,829	$ 4,019
Clinical expenses	10,558	4,663
CMC expenses	13,005	5,721
License and milestone expenses	10,900	—
Internal expenses:		
Salaries, benefits and related costs	6,595	3,891
Stock-based compensation expense	1,244	1,156
Other	194	106
	$ 48,325	$ 19,556

Research and development expenses increased $28.8 million for the nine months ended September 30, 2021 compared to the same period in 2020. The Company's merger with Aevi Genomic Medicine Inc. ("Aevi") (the "Aevi Merger" or the "Merger") in February 2020 was a transformative event as it significantly broadened our pipeline by adding the rights to three new assets, as well as bringing in critical leadership to guide the Company and development of the expanded pipeline. Given the timing of the Merger, the first half of 2020 was spent integrating and initiating the additional programs. Therefore, the main driver of the increase for the nine months ended September 30, 2021 was attributable to the maturing pipeline.

Additionally, we recognized a $10.0 million upfront license fee related to the expanded indication license agreement for AVTX-002 entered into with Kyowa Kirin Co. ("KKC") in March 2021. CMC expenses increased $7.3 million due to additional spending on manufacturing to support the development of the progressing pipeline and in anticipation of drug supply to support future trials. Clinical expenses increased $5.9 million primarily due to costs incurred to advance the pipeline as we approach multiple clinical data read outs across our pipeline. Preclinical expenses increased by $1.8 million related to increased non-clinical toxicity studies and biomarker studies to support clinical development. Finally, salaries, benefits and related costs increased by $2.7 million mainly due to an increase in headcount to grow our research and development activities as we continue to invest in our maturing pipeline.

Research and development expense is likely to continue to outpace historic periods (excluding the one-time KKC in-license charge) as the Company advances its maturing pipeline.

Acquired In-Process Research and Development Expenses

In the first quarter of 2020, the Company consummated its merger with Aevi, resulting in us acquiring $25.5 million of in-process research and development ("IPR&D"). The fair value of the IPR&D was immediately recognized as acquired in-process research and development expense given such asset has no other alternate use due to the stage of development. There was no acquired IPR&D for the nine months ended September 30, 2021.

General and Administrative Expenses

The following table summarizes our general and administrative expenses for the nine months ended September 30, 2021 and 2020 (in thousands):

	Nine Months Ended September 30,	
	2021	2020
Salaries, benefits and related costs	$ 3,336	$ 3,725
Legal, consulting and other professional expenses	7,703	4,977
Stock-based compensation expense	4,720	3,963
Other	959	685
	$ 16,718	$ 13,350

General and administrative expenses increased $3.3 million for the nine months ended September 30, 2021 compared to the same period in 2020. The increase was largely driven by a $2.7 million increase in legal, consulting and other professional expenses. The largest driver was higher legal expenses in the current period, including costs to execute the KKC expanded indication license agreement and the other licensing agreements executed in the current year. Additionally, there were increases to information technology services and director and officer insurance. Such increases were partially offset by a legal settlement in the prior period that did not repeat in the current period.

Stock-based compensation expense increased $0.8 million for the nine months ended September 30, 2021. The increase was largely driven by $1.4 million of expense related to the modifications of a former board members stock options during the second quarter of 2021, partially offset by increased expense in the prior year due to equity award grants and modifications to certain former executives and board members due to leadership changes in the first half of 2020.

These increases were offset by a $0.4 million decrease in salaries, benefits and related costs for the quarter due to a $0.8 million severance accrual in the prior year related to the resignation of an executive during the second quarter of 2020, which did not repeat for the nine months ended September 30, 2021. The overall decrease was partially offset by increased salaries cost driven by increased headcount in the current period.

General and administrative expense is likely to continue to outpace historic periods as a result of the increased infrastructure to support the Company's maturing research and development efforts.

Sales and Marketing Expenses

The following table summarizes our sales and marketing expenses for the nine months ended September 30, 2021 and 2020 (in thousands):

	Nine Months Ended September 30,	
	2021	2020
Salaries, benefits and related costs	$ 506	$ 530
Stock-based compensation expense	316	234
Advertising and marketing expense	1,044	989
Other	93	39
	$ 1,959	$ 1,792

Sales and marketing expenses primarily consist of expenses related to initiatives to support the go-to-market strategy of our pipeline assets. Sales and marketing expenses increased $0.2 million for the nine months ended September 30, 2021 compared to the same period in 2020, which was largely driven by advertising and marketing expense related to the corporate name change to Avalo Therapeutics, Inc.

Amortization Expense

The following table summarizes our amortization expense for the nine months ended September 30, 2021 and 2020 (in thousands):

	Nine Months Ended September 30,	
	2021	2020
Amortization of intangible assets	$ 1,281	$ 1,238

Amortization expense, which relates to the amortization of an intangible asset acquired as part of a previous acquisition and an assembled workforce acquired as part of a previous merger, was consistent for the nine months ended September 30, 2021 and 2020.

We expect amortization expense to decrease in future periods as the intangible asset and assembled workforce will be fully amortized in the fourth quarter of 2021 and the first quarter of 2022, respectively.

Other (Expense) Income, Net

The following table summarizes our other (expense) income, net for the nine months ended September 30, 2021 and 2020 (in thousands):

	Nine Months Ended September 30,	
	2021	2020
Change in fair value of Investment in Aytu (as defined below)	$ —	$ 5,208
Other (expense) income, net	(20)	447
Interest expense, net	(1,207)	—
	$ (1,227)	$ 5,655

Other expense, net was $1.2 million for the nine months ended September 30, 2021 compared to other income, net of $5.7 million for the same period in 2020. For the nine months ended September 30, 2021, the Company recognized interest expense of $1.2 million related to the Loan Agreement entered into in the second quarter of 2021. Pursuant to the Loan Agreement, $20.0 million was funded on the close date in June 2021. The second $10.0 million and the third $5.0 million tranches of the loan were funded in July 2021 and September 2021, respectively. Given that we entered into the Notes midway through 2021, we recognized a portion of interest expense for the nine months ended September 30, 2021. We expect interest expense to increase in future periods as a result of recognizing full periods of interest for the Notes.

For the nine months ended September 30, 2020, other income, net was mainly comprised of a $5.2 million gain on the change in fair value of the Company's previous Investment in Aytu. Each reporting period, the Company's Investment in Aytu was

remeasured at its fair value. In the second quarter of 2020, the Company sold the common stock underlying its Investment in Aytu for net proceeds of $12.8 million, which represented a gain of $5.2 million from its fair value on December 31, 2019.

Income Tax Benefit

The following table summarizes our income tax benefit for the nine months ended September 30, 2021 and 2020 (in thousands):

	Nine Months Ended September 30,	
	2021	2020
Income tax benefit	$ (180)	$ (2,607)

The Company recognized an income tax benefit of $0.2 million and $2.6 million for the nine months ended September 30, 2021 and 2020, respectively. The tax benefit recognized for the nine months ended September 30, 2020 was a result of a tax law change signed into law as part of the CARES Act, which allowed the Company to carry back certain losses for taxes paid in fiscal year 2017 and thus resulted in a refund claim. The income tax benefit in the current period was a result of the updated estimate of interest receivable and abatement of penalties on the refund claim, as the final refund payment was received from the Internal Revenue Service in the second quarter of 2021.

Liquidity and Capital Resources

As of September 30, 2021, Avalo had $71.5 million in cash and cash equivalents. In September 2021, the Company closed an underwritten public offering of 14,308,878 shares of common stock for net proceeds of approximately $29.0 million. Additionally, in August 2021, the Company sold 2.0 million shares under its "at the market" Sales agreement (the "ATM Program") for net proceeds of approximately $5.3 million.

In June 2021, the Company entered into a $35.0 million venture debt financing agreement with Horizon Technology Finance Corporation and Powerscourt Investments XXV, LP. As of September 30, 2021, the Company has received the full $35.0 million, $20.0 million of which was funded on the closing date in the second quarter of 2021 and the remaining $15.0 million was funded during the third quarter of 2021 in two separate tranches. The Loan Agreement contains certain covenants and certain other specified events that could result in an event of default, which if not cured or waived, could result in the acceleration of all or a substantial portion of the notes. As of the filing date of this Quarterly Report on Form 10-Q, the Company was not aware of any breach of covenants nor received any notice of event of default from the Lenders.

In the first quarter of 2021, the Company closed an underwritten public offering of 13,971,889 shares of its common stock and 1,676,923 pre-funded warrants for net proceeds of approximately $37.7 million.

In order to meet its cash flow needs, the Company applies a disciplined decision-making methodology as it evaluates the optimal allocation of the Company's resources between investing in the Company's existing pipeline assets and acquisitions or in-licensing of new assets. For the nine months ended September 30, 2021, Avalo generated a net loss of $65.2 million and negative cash flows from operations of $53.8 million. As of September 30, 2021, Avalo had an accumulated deficit of $243.0 million.

The accompanying condensed consolidated financial statements have been prepared assuming the Company will continue as a going concern; however, losses are expected to continue as the Company continues to invest in its research and development pipeline assets. The Company will require additional financing to fund its operations and to continue to execute its business strategy at least one year after the date the condensed consolidated financial statements included herein were issued. These conditions raise substantial doubt about the Company's ability to continue as a going concern.

To mitigate these conditions and to meet the Company's capital requirements, management plans to use its current cash on hand along with some combination of the following: (i) dilutive and/or non-dilutive financings, (ii) federal and/or private grants, (iii) other out-licensing or strategic alliances/collaborations of its current pipeline assets, and (iv) out-licensing or sale of its non-core assets. If the Company raises additional funds through collaborations, strategic alliances or licensing arrangements with third parties, the Company might have to relinquish valuable rights to its technologies, future revenue streams, research programs or product candidates. Subject to limited exceptions, our venture debt financing agreement prohibits us from incurring certain additional indebtedness, making certain asset dispositions, and entering into certain mergers, acquisitions or other business combination transactions without prior consent of the Lender. If the Company requires but is unable to obtain additional funding, the Company may be forced to make reductions in spending, delay, suspend, reduce or eliminate some or all of its planned research and development programs, or liquidate assets where possible. Due to the uncertainty regarding future financing and other potential options to raise additional funds, management has concluded that substantial doubt exists with respect to the Company's ability to

continue as a going concern within one year after the date that the financial statements in this Quarterly Report on Form 10-Q were issued.

Over the long term, the Company's ultimate ability to achieve and maintain profitability will depend on, among other things, the development, regulatory approval, and commercialization of its pipeline assets, and the potential receipt and sale of any PRVs it receives.

Uses of Liquidity

The Company uses cash to primarily fund the ongoing development of our research and development pipeline assets and costs associated with its organizational infrastructure.

Cash Flows

The following table summarizes our cash flows for the nine months ended September 30, 2021 and 2020 (in thousands):

	Nine Months Ended September 30,	
	2021	**2020**
Net cash (used in) provided by:		
Operating activities	$ (53,793)	$ (26,164)
Investing activities	(102)	11,523
Financing activities	106,686	44,584
Net increase in cash and cash equivalents	$ 52,791	$ 29,943

Net cash used in operating activities

Net cash used in operating activities was $53.8 million for the nine months ended September 30, 2021, consisting of a net loss of $65.2 million, which was primarily driven by research and development activities as the Company continued to fund its pipeline assets. The decrease was partially offset by non-cash stock-based compensation of $6.3 million. Additionally, changes in net liabilities increased by $3.5 million, mainly driven by a $2.6 million increase in accrued expenses primarily related to increased accrued research and development expense. We expect cash used in operating activities to continue to outpace historic periods due to anticipated increases in research and development spend on the maturing pipeline.

Net cash used in operating activities was $26.2 million for the nine months ended September 30, 2020. This consisted primarily of a net loss of $47.9 million, which was driven by (i) increased research and development activities as the Company continued to fund its pipeline of development assets and (ii) non-cash adjustments to reconcile net loss to net cash used in operating activities, including a $5.2 million realized gain related to the change in fair value of the Investment in Aytu and a $1.8 million gain related to the change in value of the Guarantee associated with the Aytu Divestiture. This decrease was offset by adjustments for non-cash acquired IPR&D expense of $25.5 million and non-cash stock-based compensation of $5.4 million. Additionally, changes in net liabilities increased by $3.9 million, mainly driven by a $4.3 million decrease in other receivables, a $0.7 million decrease in prepaid expenses and a $1.8 million increase in accrued expenses, partially offset by a $0.5 million decrease in accounts payable.

Net cash used in investing activities

Net cash used in investing activities was minimal for the nine months ended September 30, 2021 and consisted primarily of the purchase of property and equipment.

Net cash provided by investing activities was $11.5 million for the nine months ended September 30, 2020 and consisted primarily of net proceeds of $12.8 million from the sale of the Aytu common stock during the second quarter of 2020 underlying the Company's previous Investment in Aytu, slightly offset by transaction costs incurred as part of the Aevi Merger.

Net cash provided by financing activities

Net cash provided by financing activities was $106.7 million for the nine months ended September 30, 2021 and consisted primarily of net proceeds of $104.9 million from equity and debt financings. Specifically, the Company received net proceeds of $37.7 million from an underwritten public offering closed in January 2021 (the "January Offering"), net proceeds of $32.9 million as part of the Loan Agreement entered into in the second quarter of 2021, and net proceeds of $29.0 million from an underwritten

public offering that closed in September 2021. Additionally, in August 2021, the Company sold 2.0 million shares of common stock under the ATM Program for net proceeds of $5.3 million.

Armistice, which is a significant stockholder of the Company and whose chief investment officer, Steven Boyd, and managing director, Keith Maher, currently serve on the Board of the Company, participated in the January Offering by purchasing 2,500,000 shares of common stock and in the September Offering by purchasing 5,454,545 shares of common stock, both which were on the same terms as all other investors. Certain affiliates of Nantahala Capital Management LLC (collectively, "Nantahala"), which beneficially owned greater than 5% of the Company's outstanding common stock at the time of both 2021 public offerings, participated in both offerings on the same terms as all other investors. As part of the January Offering, Nantahala also purchased pre-funded warrants to purchase up to an aggregate of 1,676,923 shares of common stock at a purchase price of $2.599, which represents the per share public offering price for the common stock less the $0.001 per share exercise price for each pre-funded warrant.

Net cash provided by financing activities was $44.6 million for the nine months ended September 30, 2020 and consisted primarily of net proceeds of $35.4 million from an underwritten public offering of common stock for 15,180,000 shares of common stock. The Company also received $5.1 million from a registered direct offering with certain institutional investors, which included Armistice, that closed in February 2020 for the sale of 1,306,282 shares of common stock and net proceeds of $3.9 million from a private placement of equity securities with Armistice in March 2020.

Critical Accounting Policies, Estimates, and Assumptions

This Management's Discussion and Analysis of Financial Condition and Results of Operations is based on our unaudited condensed consolidated financial statements included in this Quarterly Report on Form 10-Q, which have been prepared in accordance with GAAP. In preparing the financial statements in conformity with GAAP, the Company makes estimates and assumptions that have an impact on assets, liabilities, revenue and expenses reported. These estimates can also affect supplemental information disclosed by us, including information about contingencies, risk, and financial condition. In our unaudited condensed consolidated financial statements, estimates are used for, but not limited to, revenue recognition, cost of product sales, stock-based compensation, fair value measurements, cash flows used in management's going concern assessment, income taxes, goodwill, and other intangible assets and clinical trial accruals. The Company believes, given current facts and circumstances, that our estimates and assumptions are reasonable, adhere to GAAP and are consistently applied. Inherent in the nature of an estimate or assumption is the fact that actual results may differ from estimates, and estimates may vary as new facts and circumstances arise. Our most critical accounting estimates and assumptions are included in our Annual Report on Form 10-K for the year ended December 31, 2020 filed with the SEC on March 8, 2021. There have been no material changes to our critical accounting policies during the nine months ended September 30, 2021.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements, as defined by applicable SEC rules and regulations.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Interest Rate Risk

As a smaller reporting company, we are not required to provide the information required by this Item.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15(b) and Rule 15d-15(b) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, our management, including our principal executive officer and our principal financial officer, conducted an evaluation as of the end of the period covered by this Quarterly Report on Form 10-Q of the effectiveness of the design and operation of our disclosure controls and procedures. In designing and evaluating our disclosure controls and procedures, our 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. Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of the end of the period covered by this Quarterly Report on Form 10-Q.

Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting identified in management's evaluation pursuant to Rules 13a-15(d) or 15d-15(d) of the Exchange Act during the period covered by this Quarterly Report on Form 10-Q that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings.

None.

Item 1A. Risk Factors.

In addition to the other information set forth in this Quarterly Report on Form 10-Q, you should carefully consider the factors discussed in Part I, "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2020, filed with the SEC on March 8, 2021, and our Current Report on Form 8-K filed with the SEC on July 2, 2021 which could materially affect our business, financial condition, or future results. Our risk factors as of the date of this Quarterly Report on Form 10-Q have not changed materially from those described in the Form 10-K and 8-K referenced above. The risks described in the Form 10-K and 8-K referenced above are not the only risks facing our company. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition, or future results of operations and the trading price of our common stock.

Item 5. Other Information.

On November 4, 2021, the Company entered into a Cooperation Agreement with Armistice Capital, LLC, ("Armistice") which, together with its affiliates, is a significant stockholder of the Company and whose chief investment officer, Steven Boyd and managing director, Keith Maher, currently serves on the Board of Directors of the Company (the "Board"). Pursuant to the Cooperation Agreement, the Company agreed to take all necessary action to appoint Dr. June Almenoff to the Board no later than four (4) business days of the Effective Date of the Cooperation Agreement and a second director who will qualify as "independent" of the Company pursuant to Nasdaq listing standards, who is otherwise qualified to serve on the Audit Committee and who is not associated with Armistice, to be identified pursuant to an ongoing director search process. Pursuant to the Cooperation Agreement, Dr. Almenoff was appointed to the Board, effective November 10, 2021. In connection with the Cooperation Agreement, the Company has accepted the resignations of Dr. Suzanne Bruhn, effective upon the appointment of Dr. Almenoff, and Mr. Phil Gutry, effective on the date that is the earlier of forty-five (45) days following the effective date of the Cooperation Agreement and the appointment of the second director.

Pursuant to the Cooperation Agreement, the Company agreed that the Board would appoint Dr. Almenoff to each of the Nominating and Governance Committee and Audit Committee of the Board, that Mr. Gutry would step down from the Nominating and Governance Committee and that Dr. Magnus Persson would be appointed as the Chairman of the Nominating and Governance Committee and as the Board's Lead Independent Director. In addition, the Company agreed to hold a frequency of say-on-pay and a say-on-pay vote at its 2022 annual meeting of stockholders. In connection with their resignations, the Company has agreed to accelerate the vesting of the outstanding stock options as if Dr. Bruhn and Mr. Gutry had served out their full term, pay them compensation as if they had served out their full term and to extend the exercise period of their options until the second anniversary of their resignations.

In exchange for the foregoing agreements, Armistice agreed pursuant to the Cooperation Agreement to certain customary standstill provisions prohibiting it from, among other things, soliciting proxies and exercising certain stockholder rights through the date that is immediately following the Company's 2022 annual meeting of stockholders. The parties also agreed to certain customary non-disparagement provisions pursuant to which neither the Company nor Armistice will make a statement or announcement that constitutes an ad hominem attack on, or otherwise disparages, the other party for a period of two years from the Effective Date of the Cooperation Agreement.

The Cooperation Agreement was negotiated by a Special Committee of the Board that was comprised of all non-Armistice Independent Directors. The Cooperation Agreement was then approved by the Company's Nominating and Corporate Governance Committee, Compensation Committee, Audit Committee and the full Board.

The foregoing description of the Cooperation Agreement does not purport to be complete and is qualified in its entirety by reference to the Cooperation Agreement, a copy of which is filed as Exhibit 10.1 to this Quarterly Report on Form 10-Q and is incorporated herein by reference.

Item 6. Exhibits.

Exhibit Number	Description of Exhibit
3.1+	Amended and Restated Certificate of Incorporation of Avalo Therapeutics, Inc., as amended
3.2	Third Amended and Restated Bylaws of Avalo Therapeutics, Inc. (incorporated by reference to Exhibit 3.2 to the Form 8-K filed on August 26, 2021).
10.1+	Cooperation Agreement, dated as of November 4, 2021, by and between Avalo Therapeutics, Inc. and Armistice Capital, LLC.
31.1+	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2+	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1+†	Certification of Principal Executive Officer and Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	Interactive data files pursuant to Rule 405 of Regulation S-T: (i) Condensed Consolidated Balance Sheets as of September 30, 2021 and December 31, 2020; (ii) Condensed Consolidated Statements of Operations (Unaudited) for the Three and Nine Months Ended September 30, 2021 and 2020; (iii) Condensed Consolidated Statements of Cash Flows (Unaudited) for the Nine Months Ended September 30, 2021 and 2020; (iv) Condensed Consolidated Statements of Changes in Stockholders' Equity (Unaudited) for the Three and Nine Months Ended September 30, 2021 and 2020; and (v) Notes to Unaudited Financial Statements.
104	Cover Page Interactive Data File, formatted in XBRL (included in Exhibit 101).

+ Filed herewith.

† This certification is being furnished solely to accompany this Quarterly Report on Form 10-Q pursuant to 18 U.S.C. Section 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the registrant, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

SIGNATURES

Pursuant to the requirements of the Securities and Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Avalo Therapeutics, Inc.

Date: November 9, 2021

/s/ Schond L. Greenway

Schond L. Greenway

Chief Financial Officer

(on behalf of the registrant and as the registrant's principal financial officer)

Exhibit 3.1

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
CERECOR INC.

The undersigned, Mariam E. Morris, hereby certifies that:

ONE: The original name of this company is Cerecor Inc. and the date of filing the original Certificate of Incorporation of this company with the Secretary of State of the State of Delaware was January 31, 2011.

TWO: The undersigned is a duly elected officer of Cerecor Inc., a Delaware corporation.

THREE: The Certificate of Incorporation of this company is hereby amended and restated to read as follows:

I.

The name of this company is **CERECOR INC.** (the "***Company***" or the "***Corporation***").

II.

The address of the registered office of this Corporation in the State of Delaware is 251 Little Falls Drive, City of Wilmington, County of New Castle, Zip Code 19808, and the name of the registered agent of this Corporation in the State of Delaware at such address is Corporation Service Company.

III.

The purpose of this Company is to engage in any lawful act or activity for which a corporation may be organized under the Delaware General Corporation Law ("***DGCL***").

IV.

A. This Company is authorized to issue two classes of stock to be designated, respectively, "***Common Stock***" and "***Preferred Stock***." The total number of shares which the Company is authorized to issue is two hundred five million (205,000,000) shares. Two hundred million (200,000,000) shares shall be Common Stock, each having a par value of one-tenth of one cent ($0.001). Five million (5,000,000) shares shall be Preferred Stock, each having a par value of one-tenth of one cent ($0.001).

B. The Preferred Stock may be issued from time to time in one or more series. The Board of Directors of the Company (the "***Board of Directors***") is hereby expressly authorized to provide for the issue of all or any of the shares of the Preferred Stock in one or more series, and to fix the number of shares and to determine or alter for each such series, such voting powers, full or limited, or no voting powers, and such designation, preferences, and relative, participating, optional, or other rights and such qualifications, limitations, or restrictions thereof, as shall be stated and expressed in the resolution or resolutions adopted by the Board of Directors providing for the issuance of such shares and as may be permitted by the DGCL. The Board of Directors is also expressly authorized to increase or decrease the number of shares of any series subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be decreased in accordance with the foregoing sentence, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series. The number of authorized shares of Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the voting power of the stock of the corporation entitled to vote thereon, without a separate vote of the holders of the Preferred Stock, or of any series

thereof, unless a vote of any such holders is required pursuant to the terms of any certificate of designation filed with respect to any series of Preferred Stock.

C. Each outstanding share of Common Stock shall entitle the holder thereof to one vote on each matter properly submitted to the stockholders of the corporation for their vote; *provided, however*, that, except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Amended and Restated Certificate of Incorporation (including any certificate of designation filed with respect to any series of Preferred Stock) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon by law or pursuant to this Amended and Restated Certificate of Incorporation (including any certificate of designation filed with respect to any series of Preferred Stock).

V.

For the management of the business and for the conduct of the affairs of the Company, and in further definition, limitation and regulation of the powers of the Company, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

A. MANAGEMENT OF BUSINESS. The management of the business and the conduct of the affairs of the Company shall be vested in its Board of Directors. The number of directors which shall constitute the Board of Directors shall be fixed exclusively by resolutions adopted by a majority of the authorized number of directors constituting the Board of Directors.

B. BOARD OF DIRECTORS. Each director elected at and after the annual meeting of stockholders held in 2018 shall be elected for a term expiring at the next succeeding annual meeting of stockholders and until such director's successor shall have been elected and qualified, or until such director's earlier death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

C. REMOVAL OF DIRECTORS. Subject to any limitation imposed by law and the rights of any series of Preferred Stock, any individual director or directors may be removed with or without cause by the affirmative vote of the holders of at least a majority of the voting power of all of the then-outstanding shares of the capital stock of the Company entitled to vote generally in the election of directors, voting together as a single class.

D. VACANCIES. Subject to any limitations imposed by applicable law and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors, shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by the stockholders and except as otherwise provided by applicable law, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified.

E. BYLAW AMENDMENTS. The Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws of the Company. Any adoption, amendment or repeal of the Bylaws of the Company by the Board of Directors shall require the approval of a majority of the authorized number of directors. The stockholders shall also have power to adopt, amend or repeal the Bylaws of the Company; *provided, however,* that, in addition to any vote of the holders of any class or series of stock of the Company required by law or by this Amended and Restated Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the voting power of all of the then-outstanding shares of the capital stock of the Company entitled to vote generally in the election of directors, voting together as a single class.

F. WRITTEN BALLOTS. The directors of the Company need not be elected by written ballot unless the Bylaws of the Company so provide.

G. ACTION BY STOCKHOLDERS. No action shall be taken by the stockholders of the Company except at an annual or special meeting of stockholders called in accordance with the Bylaws of the Company, and no action shall be taken by the stockholders by written consent or electronic transmission.

H. ADVANCED NOTICE. Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the Company shall be given in the manner provided in the Bylaws of the Company.

VI.

A. The liability of the directors for monetary damages shall be eliminated to the fullest extent under applicable law.

B. To the fullest extent permitted by applicable law, the Company is authorized to provide indemnification of (and advancement of expenses to) directors, officers and agents of the Company (and any other persons to which applicable law permits the Company to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise in excess of the indemnification and advancement otherwise permitted by such applicable law. If applicable law is amended after approval by the stockholders of this Article VI to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director to the company shall be eliminated or limited to the fullest extent permitted by applicable law as so amended.

C. Any repeal or modification of this Article VI shall only be prospective and shall not affect the rights or protections or increase the liability of any director under this Article VI in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.

VII.

Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (A) any derivative action or proceeding brought on behalf of the Company; (B) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Company to the Company or the Company's stockholders; (C) any action asserting a claim against the Company arising pursuant to any provision of the DGCL, the Amended and Restated Certificate of Incorporation or the Bylaws of the Company; or (D) any action asserting a claim against the Company governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the Company shall be deemed to have notice of and to have consented to the provisions of this Article VII.

VIII.

A. The Company reserves the right to amend, alter, change or repeal any provision contained in this Amended and Restated Certificate of Incorporation, in the manner now or hereafter prescribed by statute, except as provided in paragraph B. of this Article VIII, and all rights conferred upon the stockholders herein are granted subject to this reservation.

B. Notwithstanding any other provisions of this Amended and Restated Certificate of Incorporation or any provision of law which might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any particular class or series of the Company required by law or by this Amended and Restated Certificate of Incorporation or any certificate of designation filed with respect to a series of Preferred Stock, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the voting power of all of the

then outstanding shares of capital stock of the Company entitled to vote generally in the election of directors, voting together as a single class, shall be required to alter, amend or repeal Articles V, VI, VII and VIII.

* * * *

FOUR: This Amended and Restated Certificate of Incorporation has been duly approved by the Board of Directors of the Company.

FIVE: This Amended and Restated Certificate of Incorporation was approved by the holders of the requisite number of shares of said corporation in accordance with Section 228 of the DGCL. This Amended and Restated Certificate of Incorporation has been duly adopted in accordance with the provisions of Sections 242 and 245 of the DGCL by the stockholders of the Company.

IN WITNESS WHEREOF, Cerecor Inc. has caused this Amended and Restated Certificate of Incorporation to be signed by its Chief Financial Officer this 15th day of May, 2018.

CERECOR INC.

/s/ Mariam E. Morris

Name: Mariam E. Morris

Title: Chief Financial Officer

CERTIFICATE OF AMENDMENT OF
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF
CERECOR INC.

Cerecor Inc., a Delaware corporation (the "Corporation"), hereby certifies as follows:

1. The Board of Directors of the Corporation duly adopted resolutions declaring advisable the amendment of the Amended and Restated Certificate of Incorporation of the Corporation (the "Certificate of Incorporation") set forth in paragraph 3 of this Certificate of Amendment.

2. The amendment to the Certificate of Incorporation set forth in paragraph 3 of this Certificate of Amendment was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

3. Article I of the Certificate of Incorporation is hereby deleted in its entirety and replaced by the following Article I in lieu thereof:

"The name of this company is AVALO THERAPEUTICS, INC. (the "***Company***" or the "***Corporation***")."

4. This Certificate of Amendment will become effective as of 12:01 a.m., Eastern Time, on August 26, 2021.

IN WITNESS WHEREOF, this Certificate of Amendment has been executed by a duly authorized officer of the Corporation on this 25th day of August, 2021.

/s/ Schond L. Greenway
Name: Schond L. Greenway
Title: Chief Financial Officer

Exhibit 10.1

COOPERATION AGREEMENT

This COOPERATION AGREEMENT (this "**Agreement**") is made as of this 4th day of November 2021 (the "**Effective Date**"), by and between Armistice Capital, LLC, ("**Armistice**") and Avalo Therapeutics, Inc., a Delaware corporation (the "**Company**"). In consideration of and reliance upon the mutual covenants and agreements contained herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Company and Armistice agree as follows:

1. Board Composition and Related Matters.

(a) The Company agrees that the Company's Board of Directors (the "**Board**") and all applicable committees of the Board shall take all necessary actions to appoint two (2) directors as follows: (i) June Almenoff, as promptly as practicable following the Effective Date, and in any event no later than four (4) business days following the Effective Date and (ii) a second director who shall qualify as "independent" of the Company pursuant to Nasdaq listing standards and otherwise qualified to serve on the Audit Committee of the Board, to be identified pursuant to an ongoing director search process (the "**Second Director**", together with Ms. Almenoff, the "**New Directors**", and each a "**New Director**", and such process of selection and appointment of the Second Director, the "**Director Search Process**"); provided, however, that the Second Director shall be fully independent of and unassociated (directly or indirectly) with Armistice and each of its Affiliates and Associates. The Director Search Process shall be completed in an efficient and expeditious manner with the goal to appoint the Second Director within forty-five (45) days following the Effective Date; provided, however, that the anticipated timeline to appoint the Second Director may be extended if necessary in order to conduct a careful and thorough Director Search Process. The Company further agrees to accept the resignations of (x) Suzanne Bruhn, Ph.D, to be effective upon the appointment of Ms. Almenoff, and (y) Phil Gutry (Dr. Bruhn and Mr. Gutry, collectively, the "**Resigning Directors**"), to be effective upon the date that is the earlier of forty-five (45) days following the Effective Date and the appointment of the Second Director.

(b) The Company agrees that the Board and all applicable committee of the Board shall take all necessary actions to (i) nominate the New Directors for election to the Board at the 2022 annual meeting (including any reschedulings, adjournments, continuations or other meeting held in lieu thereof, the "**2022 Annual Meeting**") and (ii) recommend, support and solicit proxies for the election of the New Directors at the 2022 Annual Meeting in the same manner and with the same efforts as the Board and all applicable committees of the Board recommend, support and solicit proxies for the election of the Company's other director nominees at the 2022 Annual Meeting.

(c) As a condition to the New Directors' appointment to the Board and the subsequent nomination for election to the Board in connection with the 2022 Annual Meeting, each New Director shall agree to participate in the Company's customary procedures for new director candidates, including but not limited to, submitting to a customary background check and providing the Company a fully completed and executed copy of the Company's standard

director and officer questionnaire, interviewing with the Board's Nominating and Corporate Governance Committee (the "**NGC**") and such other reasonable and customary director onboarding documentation as required by the Company in connection with their appointment and election as new Board members.

(d) The Company hereby acknowledges and agrees that effective immediately upon their appointment to the Board as directors of the Company in accordance with Section 1(a), the New Directors shall be eligible for membership on all current committees and any new committee of the Board formed after the Effective Date. Without limiting the foregoing, immediately upon the appointment of Ms. Almenoff to the Board, the Company agrees that the Board and all applicable committees of the Board shall take all necessary actions to (i) appoint Ms. Almenoff to each of the NGC and the Audit Committee, (ii) have Mr. Gutry step down from the NGC and (iii) appoint Magnus Persson, MD, Ph.D as (x) the Chairman of the NGC and (y) the Lead Independent Director of the Board until such time as the newly reconstituted Board determines that another director should serve as Lead Independent Director.

(e) The Company agrees that the New Directors shall receive (i) the same benefits of director and officer insurance, and any indemnity arrangements available generally to all directors then serving on the Board, (ii) the same compensation for service as a director as the compensation received by other non-employee directors then serving on the Board and as established by the Compensation Committee, subject to any modification of the amount and form of such compensation as hereafter may be determined by the Compensation Committee, and (iii) such other health, welfare and other similar benefits on the same basis as are available to all other non-employee directors then serving on the Board. The parties hereto acknowledge and agree that the Company shall compensate the Resigning Directors for all Board and Committee meetings attended prior to the date of their respective departures from the Board and pay them the full amount of base compensation had each Resigning Director completed his or her full term of service on the Board, accelerate the vesting of the Resigning Directors' outstanding stock options as if each Resigning Director completed his or her full term of service on the Board, and amend all outstanding stock options such that the Resigning Directors will have continuous service with the Company through the second (2nd) anniversary of the effective date of their resignation.

2. Term and Termination. The terms and conditions of this Agreement are effective as of the Effective Date and shall remain in effect until the date that is immediately following the Company's 2022 Annual Meeting (the "**Termination Date**"); provided, however, that any party (the "**Non-Breaching Party**") may earlier terminate this Agreement if the other party commits a material breach of this Agreement (the "**Breaching Party**") that is not cured within fifteen (15) days after the Breaching Party's receipt of written notice thereof from the Non-Breaching Party or, if impossible to cure within fifteen (15) days, which the Breaching Party has not taken any substantive action to cure within such fifteen (15) day period.

3 . Standstill. Armistice agrees that until the Termination Date, it shall not, and shall cause its Affiliates and Associates and its and their respective principals, directors, general partners, members, officers, employees, and agents and representatives acting on their behalf (collectively, the "**Armistice Affiliates**") not to, directly or indirectly, without the prior express written invitation or authorization by the Board:

(a) make, engage in or in any way participate in any "solicitation" (as such term is used in the proxy rules of the Securities and Exchange Commission (the "**SEC**"), but without regard to the exclusion set forth in Rule 14a-1(1)(2)(iv) under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**")) of proxies, consents or voting authorizations with respect to the election or removal of directors of the Company or any other matter or proposal in respect of which the Company's stockholders are requested or required to vote on, or become a "participant" (as such term is used in the proxy rules of the SEC) or assist any "participant" in any such solicitation of proxies, consents or voting authorizations from the Company's stockholders;

(b) encourage, influence, induce or advise or assist any Person in so encouraging, influencing, inducing or advising any Person with respect to the giving, revocation or withholding of any proxy, consent or other authorization to vote any shares of the Company's common stock, par value $0.001 per share (the "**Common Stock**") (other than solicitation activity that is consistent with the recommendation of and expressly authorized by the Board in connection with any matter submitted to the Company's stockholders for their consideration and vote);

(c) form, join, encourage, influence, advise, act in concert with or in any way participate in any "group" (as defined pursuant to Section 13(d) of the Exchange Act), with respect to any Voting Securities (as defined below), other than solely with controlled Armistice Affiliates with respect to Voting Securities now or hereafter owned by them;

(d) make or be the proponent of any stockholder proposal (pursuant to Rule 14a-8 under the Exchange Act or otherwise);

(e) make any request for a stockholder list or for any other Company materials, books or records under Section 220 of the Delaware General Corporation Law, as amended, or other statutory or regulatory provisions providing for stockholder access to stockholder lists or Company books and records;

(f) make any statement or announcement that constitutes an ad hominem attack on, or otherwise disparages or causes to be disparaged, the Company, any of the Company's Affiliates, or any of the Company's past, present or future employees, directors, managers or representatives, or take any action that would reasonably be expected to result in any such statement or announcement being publicly made;

(g) enter into any discussions, negotiations, agreements or understandings with any Third Party to take any action that Armistice is prohibited from taking pursuant to this Section 3;

(h) make any request or submit any proposal to amend or waive the terms of this Agreement, in each case which would reasonably be expected to result in a public announcement of such request or proposal; or

(i) disclose any intention, plan, commitment or arrangement to do any of the foregoing.

Notwithstanding anything in this Section 3 or elsewhere in this Agreement, nothing in this Agreement shall prohibit or restrict Armistice from (i) communicating privately with the Board or any of the Company's officers regarding any matter, so long as such communications are not intended to, and would not reasonably be expected to, require any public disclosure of such communications, (ii) communicating with stockholders of the Company and others in a manner that does not otherwise violate this Section 3 or Section 4(b), or (iii) taking any action necessary to comply with any law, rule or regulation or any action required by any governmental or regulatory authority or stock exchange that has jurisdiction over Armistice. Nothing in this Section 3 or elsewhere in this Agreement shall be deemed to, in any manner, restrict any director's ability to act consistently with his or her fiduciary duties as a director of the Company.

As used in this Agreement, the following terms shall have the following meanings: (i) "**Affiliate**" has the meaning set forth in Rule 12b-2 under the Exchange Act and shall include Persons who become Affiliates of any Person subsequent to the date of this Agreement, (ii) "**Associate**" has the meaning set forth in Rule 12b-2 under the Exchange Act and shall include Persons who become Associates of any Person subsequent to the date of this Agreement, (iii) "**Person**" shall be interpreted broadly to include, among others, any individual, general or limited partnership, corporation, limited liability or unlimited liability company, joint venture, estate, trust, group, association or other entity of any kind or structure, (iv) "**Third Party**" means any Person that is not Armistice or an Affiliate of an Associate of Armistice, and (v) "**Voting Securities**" means the shares of Common Stock and any other securities of the Company entitled to vote generally in the election of directors, or securities convertible into, or exercisable or exchangeable for, such shares or other securities, whether or not subject to the passage of time or other contingencies.

4. Additional Agreements.

(a) Until the Termination Date, each party covenants and agrees that it will not institute, solicit, assist, opt into, or join (or threaten to do so) any litigation, action, complaint, arbitration or other proceeding against or involving the other party or any of its current former or future directors, officers, employees, stockholders or Affiliates (including derivative actions, direct class actions or otherwise), to assert any claims against the other party or any of its current or former or future directors, officers, employees, stockholders or Affiliates arising out of any facts known by such party as of the Effective Date; provided that this Section 4(a) shall not prohibit any claim with respect to the enforcement of or a breach of this Agreement.

(b) Armistice and the Company agree that for a period of two (2) years following the Effective Date, neither it nor they, nor any of their respective employees, directors, managers or representatives, shall, and shall cause each of their respective employees, directors, managers or representatives not to, directly or indirectly, in any capacity or manner, make, express, transmit, speak, write, verbalize or otherwise communicate in any way (or cause, further, assist, solicit, encourage, support or participate in any of the foregoing), any remark, comment, message, information, declaration, communication or other statement of any kind, whether verbal, in writing, electronically transferred or otherwise, that might reasonably be construed to be derogatory or critical of, or negative toward, or constitute an ad hominem attack on, or otherwise disparages, defames or damages the reputation or good name of (i) in the case of Armistice, any of the Company's independent directors as of the date hereof, including the

Resigning Directors, and (ii) in the case of the Company, Armistice or any Armistice Affiliate. Notwithstanding the above, nothing in this Agreement shall prohibit any party from making any statement or disclosure required under the federal securities laws or other applicable laws (including to comply with any subpoena or other legal process from any governmental or regulatory authority with competent jurisdiction over the relevant party thereto) or stock exchange regulations; provided, however, that, unless prohibited under applicable law, such party must provide written notice to the applicable other party at least two (2) business days prior to making any such statement or disclosure required under the federal securities laws or other applicable laws or stock exchange regulations that would otherwise be prohibited by the provisions of this Agreement, and reasonably consider any comments of such other party. The limitations set forth above shall not prevent any party from responding to any public statement made by the other party of the nature described above, if such statement by the other party was made in breach of this Agreement.

(c) The Company agrees to have each of a proposal for "say-on-pay" and frequency of "say-on-pay" to be put before shareholders of the Company at the 2022 Annual Meeting.

5. Representations and Covenants.

(a) Representations and Covenants of Armistice. Armistice represents, warrants to and agrees with the Company, as follows: (i) Armistice is duly organized, validly existing and in good standing under the laws of its jurisdiction of organization, (ii) Armistice has the requisite power and authority to execute, deliver and perform the terms and provisions of this Agreement and to consummate the transactions contemplated hereby, (iii) this Agreement has been duly and validly authorized, executed and delivered by Armistice, and constitutes a valid and binding obligation and agreement of Armistice and is enforceable against Armistice in accordance with its terms, (iv) Armistice, together with the Armistice Affiliates, beneficially owns, directly or indirectly, an aggregate of 49,412,442 shares of Common Stock and such shares of Common Stock constitute all of the Common Stock, directly or indirectly, beneficially owned by Armistice and the Armistice Affiliates or in which Armistice or the Armistice Affiliates have any interest or right to acquire, whether through derivative securities, voting agreements or otherwise, and (v) Armistice and its Affiliates shall inform each party with shared voting or dispositive power over such securities of the terms of this Agreement.

(b) Representations and Covenants of the Company. The Company represents and warrants to Armistice that (i) the Company is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware, (ii) the Company has the requisite corporate power and authority to execute, deliver and perform the terms and provisions of this Agreement and to consummate the transactions contemplated hereby, and (iii) this Agreement has been duly and validly authorized, executed and delivered by the Company, constitutes a valid and binding obligation and agreement of the Company and is enforceable against the Company in accordance with its terms.

6. Public Announcements. The parties shall make the following public announcements and/or filings with the SEC:

(a) As soon as practicable after the Effective Date, the Company shall file with the SEC a Current Report on Form 8-K (the "**Form 8-K**") reporting the execution and delivery of this Agreement and appending a copy of this Agreement as an Exhibit thereto or shall include such required disclosure in its Form 10-Q for the period ended September 30, 2021 (the "**Q3 Form 10-Q**"). The Company hereby agrees to provide Armistice with a reasonable opportunity to review and comment on the Form 8-K or required disclosure in the Q3 Form 10-Q and to consider in good faith any such comments by Armistice.

(b) Within forty-eight (48) hours following the Effective Date, Armistice shall file an amendment to its Schedule 13D (the "**13D Amendment**") with respect to the Company, reporting the execution and delivery of this Agreement and amending the applicable items of its Schedule 13D to conform to the obligations hereunder. Armistice hereby agrees to provide the Company with a reasonable opportunity to review and comment on the 13D Amendment and to consider in good faith any such comments by the Company.

7. Miscellaneous. The parties agree that irreparable damage could occur in the event any of the provisions of this Agreement were not performed in accordance with the terms hereof and that such damage may not be adequately compensable in monetary damages. Accordingly, the parties hereto shall be entitled to an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions of this Agreement exclusively in the Delaware Court of Chancery and any state appellate court therefrom within the state of Delaware (collectively, the "**Chosen Courts**"), in addition to any other remedies at law or in equity, and each party agrees it will not take any action, directly or indirectly, in opposition to another party seeking relief. Each of the parties hereto agrees to waive any bonding requirement under any applicable law, in the case any other party seeks to enforce the terms by way of equitable relief. Furthermore, each of the parties hereto (a) consents to submit itself to the Chosen Courts in the event any dispute arises out of or relating to this Agreement or the transactions contemplated by this Agreement, (b) agrees that it shall not attempt to deny or defeat such personal jurisdiction by motion or other request for leave from any such Chosen Courts, (c) agrees that it shall not bring any action arising out of or relating to this Agreement or the transactions contemplated by this Agreement in any court other than the Chosen Courts. THIS AGREEMENT SHALL BE GOVERNED IN ALL RESPECTS, INCLUDING VALIDITY, INTERPRETATION AND EFFECT, BY THE INTERNAL SUBSTANTIVE AND PROCEDURAL LAWS OF THE STATE OF DELAWARE APPLICABLE TO CONTRACTS EXECUTED AND TO BE PERFORMED WHOLLY WITHIN SUCH STATE WITHOUT GIVING EFFECT TO ANY CONFLICT OR CHOICE OF LAW PRINCIPLES THAT MAY RESULT IN THE APPLICATION OF THE LAWS OF ANOTHER JURISDICTION.

EACH OF THE PARTIES HERETO WAIVES TO THE FULLEST EXTENT OF THE LAW ANY RIGHT TO TRIAL BY JURY WITH RESPECT TO ANY CLAIM ARISING OUT OF THIS AGREEMENT.

8. Entire Agreement; Amendment. This Agreement contains the entire agreement and understanding of the parties with respect to the subject matter hereof and supersede any and all prior and contemporaneous agreements, memoranda, arrangements and understandings, both written and oral, between the parties, or any of them, with respect to the subject matter hereof. This Agreement may be amended only by an agreement in writing executed by the parties hereto,

and no waiver of compliance with any provision or condition of this Agreement and no consent provided for in this Agreement shall be effective unless evidenced by a written instrument executed by the party against whom such waiver or consent is to be effective. No failure or delay by a party in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any right, power or privilege hereunder.

9. Notices. All notices, consents, requests, instructions, approvals and other communications provided for herein and all legal process in regard hereto shall be in writing and shall be deemed validly given, made or served, if (a) delivered in person or sent by overnight courier, when actually received during normal business hours at the address specified in this subsection, or (b) if given by e-mail, when such e-mail is transmitted to the e-mail address set forth below and the appropriate confirmation is received:

if to the Company, to: Avalo Therapeutics, Inc.

540 Gaither Road, Suite 400
Rockville, Maryland 20850
Attention: Michael Cola

With copies (which shall not constitute notice pursuant to this Section 9) to:

Vinson & Elkins L.L.P.
1114 Avenue of the Americas, 32nd Floor
New York, NY 10036
Attention: Lawrence S. Elbaum
E-mail: lelbaum@velaw.com

Attention: C. Patrick Gadson
E-mail: pgadson@velaw.com

if to Armistice, to: Armistice Capital, LLC

510 Madison Avenue, 7th Floor
New York, NY 10022
Attention: Steven Boyd

With a copy (which shall not constitute notice pursuant to this Section 9) to:

Olshan Frome Wolosky LLP
1325 Avenue of the Americas
New York, NY 10019
Attention: Andrew Freedman, Esq.
E-mail: afreedman@olshanlaw.com

10. Severability. If at any time subsequent to the date hereof, any provision of this Agreement shall be held by any court of competent jurisdiction to be illegal, void or unenforceable, such provision shall be of no force and effect, but the illegality or

unenforceability of such provision shall have no effect upon the legality or enforceability of any other provision of this Agreement.

11. Counterparts. This Agreement may be executed in two or more counterparts either manually or by electronic or digital signature (including by facsimile or electronic mail transmission), each of which shall be deemed to be an original and all of which together shall constitute a single binding agreement on the parties, notwithstanding that not all parties are signatories to the same counterpart.

12. No Third-Party Beneficiaries; Assignment. This Agreement is solely for the benefit of the parties hereto and is not binding upon or enforceable by any other persons. No party to this Agreement may assign its rights or delegate its obligations under this Agreement, whether by operation of law or otherwise, and any assignment in contravention hereof shall be null and void. Nothing in this Agreement, whether express or implied, is intended to or shall confer any rights, benefits or remedies under or by reason of this Agreement on any persons other than the parties hereto, nor is anything in this Agreement intended to relieve or discharge the obligation or liability of any third persons to any party.

13. Interpretation and Construction. When a reference is made in this Agreement to a Section, such reference shall be to a Section of this Agreement, unless otherwise indicated. The headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement. Whenever the words "include," "includes" and "including" are used in this Agreement, they shall be deemed to be followed by the words "without limitation." The words "hereof," "herein" and "hereunder" and words of similar import when used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement. The word "will" shall be construed to have the same meaning as the word "shall." The words "dates hereof" will refer to the date of this Agreement. The word "or" is not exclusive. The definitions contained in this Agreement are applicable to the singular as well as the plural forms of such terms. Any agreement, instrument, law, rule or statute defined or referred to herein means, unless otherwise indicated, such agreement, instrument, law, rule or statute as from time to time amended, modified or supplemented. Each of the parties hereto acknowledges that it has been represented by counsel of its choice throughout all negotiations that have preceded the execution of this Agreement, and that it has executed the same with the advice of said independent counsel. Each party cooperated and participated in the drafting and preparation of this Agreement and the documents referred to herein, and any and all drafts relating thereto exchanged among the parties shall be deemed the work product of all of the parties and may not be construed against any party by reason of its drafting or preparation. Accordingly, any rule of law or any legal decision that would require interpretation of any ambiguities in this Agreement against any party that drafted or prepared it is of no application and is hereby expressly waived by each of the parties hereto, and any controversy over interpretations of this Agreement shall be decided without regards to events of drafting or preparation.

[Signature pages follow]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first set forth above.

Avalo Therapeutics, Inc.

/s/ Michael Cola

Name: Michael Cola

Title: CEO

Armistice Capital, LLC

/s/ Steven Boyd

Name: Steven Boyd

Title: Managing Member

Exhibit 31.1

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

I, Michael Cola, certify that:

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

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

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

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

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

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

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

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

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

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

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

Date: November 9, 2021

/s/ Michael Cola

Michael Cola
Chief Executive Officer
(Registrant's principal executive officer)

Exhibit 31.2

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

I, Schond L. Greenway, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Avalo Therapeutics, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
    a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
    c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
    d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
    a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
    b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 9, 2021

/s/ Schond L. Greenway
Schond L. Greenway
Chief Financial Officer
(Registrant's principal financial officer)

Exhibit 32.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
AND PRINCIPAL FINANCIAL OFFICER
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 of Avalo Therapeutics, Inc. (the "Registrant") on Form 10-Q for the period ended September 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael Cola, Chief Executive Officer of the Registrant, and I, Schond L. Greenway, Chief Financial Officer of the Registrant, each hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

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

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Registrant.

Date: November 9, 2021

/s/ Michael Cola

Michael Cola
Chief Executive Officer
(Registrant's principal executive officer)

Date: November 9, 2021

/s/ Schond L. Greenway

Schond L. Greenway
Chief Financial Officer
(Registrant's principal financial officer)

The foregoing certifications are not deemed filed with the Securities and Exchange Commission for purposes of section 18 of the Securities Exchange Act of 1934, as amended (Exchange Act), and are not to be incorporated by reference into any filing of Cerecor Inc. under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, regardless of any general incorporation language in such filing.