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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2019

OR

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

For the transition period from_____ to_____
Commission File No. 001-38535

Aptinyx Inc.
(Exact name of registrant as specified in its charter)

Delaware	**47-4626057**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

909 Davis Street, Suite 600
Evanston, IL 60201
(847) 871-0377
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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

Title of each class	**Trading symbol(s)**	**Name of each exchange on which registered**
Common Stock, par value $0.01 per share	APTX	The Nasdaq Global Select Market

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

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

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

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

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

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

As of November 8, 2019, the registrant had 33,679,965 shares of common stock, $0.01 par value per share, outstanding.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

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

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

- the timing, progress, and results of preclinical studies and clinical trials for NYX-2925, NYX-783, NYX-458, and any future product candidates we may develop, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the studies will become available, and our research and development programs;
- the existence or absence of side effects or other properties relating to our product candidates which could delay or prevent their regulatory approval, limit their commercial potential, or result in significant negative consequences following any potential marketing approval;
- the potential for our identified research priorities to advance our technologies;
- the potential timelines for our clinical studies or our ability to demonstrate safety and efficacy of our product candidates to the satisfaction of applicable regulatory authorities;
- our ability to obtain and maintain regulatory approval of our product candidates, NYX-2925, NYX-783, NYX-458, and any other future product candidates, and any statements regarding the label of an approved product candidate, including any restrictions, limitations and/or warnings therein;
- our intellectual property position, including the scope of protection we are able to establish and maintain for intellectual property rights covering NYX-2925, NYX-783, NYX-458, and any additional product candidates we may develop, and any statements as to whether we do or do not infringe, misappropriate, or otherwise violate any third-party intellectual property rights;
- our ability and the potential to successfully manufacture our product candidates for clinical studies and for commercial use, if approved;
- our ability to commercialize our products in light of the intellectual property rights of others;
- our ability to obtain funding for our operations, including funding necessary to complete further development and commercialization of our product candidates;
- our plans to research, develop, and commercialize our product candidates;
- our ability to retain and attract collaborators with research, development, regulatory, and commercialization expertise;
- the size and growth potential of the markets for our product candidates and our ability to serve those markets;
- the rate and degree of market acceptance and clinical utility of NYX-2925, NYX-783, NYX-458, and any future product candidates we may develop, if approved;
- the pricing and reimbursement of NYX-2925, NYX-783, NYX-458, and any future product candidates we may develop, if approved;
- regulatory developments in the United States and foreign countries;
- our ability to contract with third-party suppliers and manufacturers and their ability to perform adequately;
- the success of competing therapies that are or may become available;
- our ability to retain the continued service of our key professionals and to identify, hire, and retain additional qualified professionals;
- the accuracy of our estimates regarding expenses, future revenue, capital requirements, and needs for additional financing;
- our financial performance;
- our expectations related to the use of our cash reserves;

- the impact of laws and regulations, including, without limitation, recently enacted tax reform legislation;
- the use of proceeds from our initial public offering;
- our expectations regarding the time during which we will be an "emerging growth company" under the Jumpstart Our Business Startups Act; and
- other risks and uncertainties, including those listed under "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2018, or Annual Report.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this Quarterly Report on Form 10-Q and our Annual Report filed with the Securities and Exchange Commission, or the SEC, on March 21, 2019, particularly in the "Risk Factors" section, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, collaborations, joint ventures or investments that we may make or into which we may enter.

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

PART I—FINANCIAL INFORMATION

Item 1. Condensed Financial Statements.

Aptinyx Inc.
Condensed Balance Sheets
(unaudited)
(In thousands, except per share data)

	September 30, 2019	December 31, 2018
Assets		
Current assets:		
Cash and cash equivalents	$ 114,214	$ 150,637
Restricted cash	179	252
Accounts receivable	461	578
Prepaid expenses and other current assets	3,980	1,784
Total current assets	118,834	153,251
Other assets	166	673
Property and equipment, net	1,330	1,690
Total assets	$ 120,330	$ 155,614
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 1,750	$ 1,889
Accrued expenses and other current liabilities	5,344	3,996
Total current liabilities	7,094	5,885
Other long-term liabilities	309	418
Total liabilities	$ 7,403	$ 6,303
Commitments and contingencies (see Note 10)		
Stockholders' equity:		
Preferred stock, $0.01 par value, 10,000 shares authorized and no shares issued and outstanding as of September 30, 2019 and December 31, 2018	—	—
Common stock, $0.01 par value, 150,000 shares authorized as of September 30, 2019 and December 31, 2018, 33,676 and 33,341 issued and outstanding as of September 30, 2019 and December 31, 2018	337	333
Additional paid-in capital	261,760	254,516
Accumulated deficit	(149,170)	(105,538)
Total stockholders' equity	$ 112,927	$ 149,311
Total liabilities and stockholders' equity	$ 120,330	$ 155,614

See accompanying notes to these unaudited condensed financial statements.

Aptinyx Inc.
Condensed Statements of Operations
(unaudited)
(In thousands, except per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Revenues:				
Collaboration revenue	936	943	$ 2,751	$ 3,893
Grant revenue	—	—	—	1,642
Total revenues	$ 936	$ 943	2,751	5,535
Operating expenses:				
Research and development	11,761	11,950	33,732	37,860
General and administrative	4,523	3,782	14,419	7,853
Total operating expenses	16,284	15,732	48,151	45,713
Loss from operations	(15,348)	(14,789)	(45,400)	(40,178)
Other income	558	608	1,768	990
Net loss and comprehensive loss	$ (14,790)	$ (14,181)	$ (43,632)	$ (39,188)
Net loss per share attributable to common stockholders, basic and diluted	$ (0.44)	$ (0.43)	$ (1.30)	$ (2.48)
Weighted-average number of common shares outstanding, basic and diluted	33,646	33,191	33,510	15,789

See accompanying notes to these unaudited condensed financial statements.

Aptinyx Inc.
Condensed Statements of Cash Flows
(unaudited)
(In thousands)

	Nine Months Ended September 30,	
	2019	**2018**
Cash flows from operating activities:		
Net loss	$ (43,632)	$ (39,188)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization expense	345	336
Stock-based compensation expense	6,966	1,984
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	(1,563)	356
Accounts receivable	117	344
Accounts payable	(139)	(263)
Accrued expenses and other liabilities	1,279	3,966
Net cash used in operating activities	(36,627)	(32,465)
Cash flows from investing activities:		
Purchases of property and equipment	(43)	(391)
Net cash used in investing activities	(43)	(391)
Cash flows from financing activities:		
Payment of deferred issuance costs associated with Series B convertible preferred stock financing	—	(232)
Proceeds from initial public offering, net of underwriters' discounts	—	109,517
Proceeds from stock options exercised	282	2
Payment of deferred offering costs	(181)	(2,971)
Net cash provided by financing activities	101	106,316
Net (decrease) increase in cash, cash equivalents and restricted cash	(36,569)	73,460
Cash, cash equivalents and restricted cash, at beginning of period	151,128	92,609
Cash, cash equivalents and restricted cash, at end of period	$ 114,559	$ 166,069
Supplemental disclosure of non-cash investing and financing activities:		
Deferred offering costs not yet paid	$ 17	$ 41

See accompanying notes to these unaudited condensed financial statements.

Aptinyx Inc.
Condensed Statements of Convertible Preferred Stock and Stockholders' (Deficit) Equity
(unaudited)
(in thousands)

	Series A-1 convertible preferred stock		Series A-2 convertible preferred stock		Series B convertible preferred stock		Common stock		Additional paid-in capital	Accumulated deficit	Total stockholders' equity (deficit)
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Balance at June 30, 2019	—	$ —	—	$ —	—	$ —	33,608	$ 336	$ 259,090	$ (134,380)	$ 125,046
Issuance of common stock upon vesting of restricted stock	—	—	—	—	—	—	54	1	(1)	—	—
Stock-based compensation	—	—	—	—	—	—	—	—	2,641	—	2,641
Issuance of common stock upon exercise of stock options	—	—	—	—	—	—	14	—	30	—	30
Net loss	—	—	—	—	—	—	—	—	—	(14,790)	(14,790)
Balance at September 30, 2019	—	$ —	—	$ —	—	$ —	33,676	$ 337	$ 261,760	$ (149,170)	$ 112,927
Balance at June 30, 2018	—	$ —	—	$ —	—	$ —	33,155	$ 332	$ 252,473	$ (77,264)	$ 175,541
Issuance of common stock upon vesting of restricted stock	—	—	—	—	—	—	73	—	—	—	—
Stock-based compensation	—	—	—	—	—	—	—	—	720	—	720
Issuance of common stock upon exercise of stock options							1	—	2	—	2
Issuance of common stock upon IPO, net of underwriters' discount and other offering costs of $2,902	—	—	—	—	—	—	—	—	(111)	—	(111)
Net loss	—	—	—	—	—	—	—	—	—	(14,181)	(14,181)
Balance at September 30, 2018	—	$ —	—	$ —	—	$ —	33,229	$ 332	$ 253,084	$ (91,445)	$ 161,971

	Series A-1 convertible preferred stock		Series A-2 convertible preferred stock		Series B convertible preferred stock		Common stock		Additional paid-in capital	Accumulated deficit	Total stockholders' equity (deficit)
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Balance at December 31, 2018	—	$ —	—	$ —	—	$ —	33,341	$ 333	$ 254,516	$ (105,538)	$ 149,311
Issuance of common stock upon vesting of restricted stock	—	—	—	—	—	—	193	2	(2)	—	—
Stock-based compensation	—	—	—	—	—	—	—	—	6,966	—	6,966
Issuance of common stock upon exercise of stock options	—	—	—	—	—	—	142	2	280	—	282
Net loss	—	—	—	—	—	—	—	—	—	(43,632)	(43,632)
Balance at September 30, 2019	—	$ —	—	$ —	—	$ —	33,676	$ 337	$ 261,760	$ (149,170)	$ 112,927
Balance at December 31, 2017	151,773	$ 22,650	173,453	$ 39,979	234,955	$ 69,757	5,342	$ 53	$ 12,486	$ (52,257)	$ (39,718)
Issuance of common stock upon vesting of restricted stock	—	—	—	—	—	—	220	2	(2)	—	—
Stock-based compensation	—	—	—	—	—	—	—	—	1,984	—	1,984
Issuance of common stock upon exercise of stock options							1	—	2	—	2
Conversion of preferred stock upon IPO	(151,773)	(22,650)	(173,453)	(39,979)	(234,955)	(69,757)	20,306	203	132,183	—	132,386
Issuance of common stock upon IPO, net of underwriters' discount and other offering costs of $2,902	—	—	—	—	—	—	7,360	74	106,431	—	106,505
Net loss	—	—	—	—	—	—	—	—	—	(39,188)	(39,188)
Balance at September 30, 2018	—	$ —	—	$ —	—	$ —	33,229	$ 332	$ 253,084	$ (91,445)	$ 161,971

See accompanying notes to the unaudited condensed financial statements

Aptinyx Inc.
Notes to Condensed Financial Statements
(Unaudited)

1. Organization

Description of business

Aptinyx Inc. (the "Company" or "Aptinyx") was incorporated in Delaware on June 24, 2015 and maintains its headquarters in Evanston, Illinois.

Aptinyx is a clinical-stage biopharmaceutical company focused on the discovery, development, and commercialization of novel, proprietary, synthetic small molecules for the treatment of brain and nervous system disorders. Aptinyx has a platform for discovering proprietary compounds that work through a novel mechanism: modulation of N-methyl-D-aspartate receptors ("NMDAr"), which are vital to normal and effective brain and nervous system functions. This mechanism has applicability across numerous brain and nervous system disorders.

Initial public offering

On June 20, 2018, the Company's registration statement on Form S-1 (File No. 333-225150) relating to the initial public offering ("IPO") of its common stock became effective and on June 25, 2018, the IPO closed. Pursuant to the IPO, the Company issued and sold 7,359,998 shares of common stock at a public offering price of $16.00 per share, which included 959,999 shares sold pursuant to the exercise of the underwriters' option to purchase additional shares. The Company received net proceeds of $106.5 million after deducting underwriting discounts and commissions and other offering costs of $3.0 million. The shares began trading on the Nasdaq Global Select Market on June 21, 2018. Upon the closing of the IPO, all of the Company's outstanding shares of convertible preferred stock automatically converted into 20,306,497 shares of common stock at the applicable conversion ratio.

At the market offering program

On July 1, 2019, the Company entered into a Sales Agreement (the "Sales Agreement") with Cowen and Company, LLC ("Cowen"), pursuant to which the Company may issue and sell, from time to time, shares of its common stock having an aggregate offering price of up to $50.0 million through Cowen as sales agent. Cowen may sell common stock by any method permitted by law deemed to be an "at the market offering" as defined in Rule 415(a)(4) of the Securities Act, including sales made directly on or through the Nasdaq Global Select Market or any other existing trade market for the common stock, in negotiated transactions at market prices prevailing at the time of sale or at prices related to prevailing market prices, or any other method permitted by law. Cowen will be entitled to receive 3.0% of the gross sales price per share of common stock sold under the Sales Agreement. As of the date of these financial statements, no shares of common stock have been issued and sold pursuant to the Sales Agreement.

Liquidity and capital resources

As of September 30, 2019, the Company had cash and cash equivalents of $114.2 million, which the Company believes will be sufficient to funds its planned operations for a period of at least twelve months from the date of issuance of these condensed financial statements.

2. Summary of significant accounting policies

Basis of presentation

The condensed financial statements of the Company included herein have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the "SEC"). Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") have been condensed or omitted from this report, as is permitted by such rules and

regulations. The accompanying condensed financial statements reflect all adjustments consisting of normal, recurring adjustments that are necessary for a fair presentation of the financial position, results of operations and cash flows for the interim periods presented. Interim results are not necessarily indicative of results for a full year. Accordingly, these condensed financial statements should be read in conjunction with the financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018 (the "Annual Report") filed with the SEC on March 21, 2019.

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board ("FASB"), or other standard setting bodies and adopted by the Company as of the specified effective date. Unless otherwise discussed, the impact of recently issued standards that are not yet effective will not have a material impact on the Company's financial statements upon adoption. Under the Jumpstart Our Business Startups Act of 2012, as amended (the "JOBS Act"), the Company meets the definition of an emerging growth company, and has elected the extended transition period for complying with new or revised accounting standards, which delays the adoption of these accounting standards until they would apply to private companies.

Reverse stock split

On June 7, 2018, the Company effected a one-for-27.58621 reverse stock split of the Company's issued and outstanding shares of common stock and a proportional adjustment to the existing conversion ratios for the Company's convertible preferred stock. The par value per share and authorized shares of common and convertible preferred stock were not adjusted as a result of the reverse stock split. All common stock and common stock per share amounts within the financial statements and notes thereto have been retroactively adjusted for all periods presented to give effect to this reverse stock split, including reclassifying an amount equal to the reduction in par value of common stock to additional paid-in capital.

Use of estimates

The condensed financial statements are prepared in conformity with GAAP. This process requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of expenses during the reporting period. Actual results could differ from those estimates.

Significant accounting policies

The Company's significant accounting policies are described in Note 3, "Summary of significant accounting policies," in the Annual Report. There have been no material changes to the significant accounting policies during the nine months ended September 30, 2019 with the exception of the following:

Revenue Recognition

Revenue is recognized in accordance with revenue recognition accounting guidance, which utilizes five steps to determine whether revenue can be recognized and to what extent: (i) identify the contract with a customer; (ii) identify the performance obligation(s); (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) determine the recognition period. The Company only applies the five-step model to contracts when it is probable that the Company will collect the consideration it is entitled to in exchange for the goods or services it transfers to the customer. At contract inception, once the contract is determined to be within the scope of ASC 606, *Revenue from Contracts with Customers,* the Company assesses the goods or services promised within each contract and determines those that are performance obligations and assesses whether each promised good or service is distinct. The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

Significant judgments exercised by management include the identification of performance obligations, and whether such promised goods or services are considered distinct. The Company evaluates promised goods or services on a contract by contract basis to determine whether each promise represents a good or service that is distinct or has the same pattern of

transfer as other promises. A promised good or service is considered distinct if the customer can benefit from the good or service independently of other goods/services either in the contract or that can be obtained elsewhere, without regard to contract exclusivity, and the entity's promise to transfer the good or service to the customer is separately identifiable from other promises in the contact. If the good or service is not considered distinct, the Company combines such promises and accounts for them as a single combined performance obligation.

Recently adopted accounting pronouncements

In May 2014, the FASB issued Accounting Standards Update ("ASU") No. 2014-09, which amends the guidance for accounting for revenue from contracts with customers. This ASU supersedes the revenue recognition requirements in ASC Topic 605, *Revenue Recognition*, ("ASC 605"), and creates a new topic, ASC 606,*Revenue from Contracts with Customers.* Through subsequent targeted amendments, the FASB issued additional ASUs that delayed the effective date of ASC 606 and clarified various aspects of the new revenue guidance, including principal versus agent considerations, identifying performance obligations, licensing, and other improvements and practical expedients. The Company adopted this new standard on January 1, 2019 using the modified retrospective transition method. The Company presents revenue from contracts with customers as collaboration revenue in the Company's condensed statements of operations. The Company applied this new standard to all contracts with customers that were not complete as of the adoption date and has determined that no cumulative catch-up adjustment to accumulated deficit was required. See Note 4, "Research collaboration agreement with Allergan" for additional information regarding the Company's single contract that falls within the scope of ASC 606.

The Company has determined that the accounting for the Company's various grant agreements is outside the scope of ASC 606, as the government agencies granting the Company funds are not receiving reciprocal value for their contributions. There are currently no grants outstanding in 2019. Since the accounting for government grants falls outside the scope of ASC 606, the Company has classified the grant income earned in 2018 separate and apart from revenue earned from contracts with customers in the Company's condensed statements of operations.

In June 2018, the FASB issued ASU 2018-07,*Compensation-Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*. This ASU expands the scope of Topic 718, *Compensation—Stock Compensation* to include share-based payments issued to nonemployees for goods or services. Under the new guidance, the existing employee guidance will apply to nonemployee share based transactions (as long as the transaction is not effectively a form of financing), with the exception of specific guidance related to the attribution of compensation cost. The cost of nonemployee awards will continue to be recorded as if the grantor had paid cash for the goods or services. The new accounting guidance will be effective for the Company on January 1, 2020. The Company has early adopted this new standard on January 1, 2019. The adoption did not have a material impact on the Company's condensed financial statements.

Recently issued accounting pronouncement

In February 2016, the FASB issued ASU No. 2016-02,*Leases* ("ASU 2016-02"), which requires a lessee to recognize assets and liabilities on the balance sheet for operating leases and changes many key definitions, including the definition of a lease. The new standard includes a short-term lease exception for leases with a term of 12 months or less, as part of which a lessee can make an accounting policy election not to recognize lease assets and lease liabilities. Lessees will continue to differentiate between finance leases (previously referred to as capital leases) and operating leases using classification criteria that are substantially similar to the previous guidance. The new standard will be effective for the Company beginning after December 15, 2019, and early adoption is permitted. The Company is currently evaluating the potential impact ASU 2016-02 may have on its condensed financial statements.

3. Supplemental financial information

Cash, cash equivalents and restricted cash

Cash and cash equivalents consist of cash and, if applicable, highly liquid investments with an original maturity of three months or less when purchased. The following table provides a reconciliation of cash, cash equivalents, and

restricted cash reported within the balance sheets that sum to the total of the same such amounts shown in the condensed statements of cash flows (amounts in thousands).

	As of September 30, 2019	As of December 31, 2018
Cash and cash equivalents	$ 114,214	$ 150,637
Short-term and long-term restricted cash	345	491
Total cash, cash equivalents, and restricted cash shown in the statements of cash flows	$ 114,559	$ 151,128

Prepaid expenses and other current assets

Prepaid expenses and other current assets consist of the following (in thousands):

	As of September 30, 2019	As of December 31, 2018
Prepaid clinical	$ 1,970	$ 728
Prepaid insurance	1,220	673
Prepaid manufacturing costs	435	—
Other prepaid expenses and current assets	355	383
Total prepaid expenses and other current assets	$ 3,980	$ 1,784

Accrued expenses and other current liabilities

Accrued expenses and other current liabilities consist of the following (in thousands):

	As of September 30, 2019	As of December 31, 2018
Employee-related expenses	$ 1,954	$ 2,043
Development costs and sponsored research	1,746	915
Clinical trials	1,176	607
Professional services	125	211
Other	343	220
Total accrued expenses and other current liabilities	$ 5,344	$ 3,996

4. Research collaboration agreement with Allergan

On July 24, 2015, the Company entered into a Research Collaboration Agreement ("RCA") with Naurex Inc., a subsidiary of Allergan plc ("Allergan"), focused on the research and discovery of small molecules that modulate NMDArs. The collaboration is supervised by a Joint Steering Committee ("JSC") comprising an equal number of representatives from both the Company and Allergan. Under the terms of the agreement, the RCA will terminate upon the earlier of a predetermined anniversary of the RCA or on the date on which Allergan exercises three options to acquire molecules from a pool of eligible compounds. Under the terms of the agreement, Allergan will pay the Company $1.0 million for each option exercised by Allergan. On May 16, 2018, Allergan exercised its option to acquire exclusive rights to develop and commercialize AGN-241751 within a predefined set of indications.

The Company concluded that Allergan meets the definition of a customer, and therefore concluded that the RCA represents a contract with a customer that falls within the scope of ASC 606.

Performance obligations

The Company identified the following promised goods or services within the RCA:

- Research Licenses – the Company provides access to exclusive licenses under all of the Company's NMDAr technologies, during the research term for the sole purpose of conducting research and development activities. Historically, the Company's licenses have held no value to the customer on a standalone basis, as the research compounds were in the early discovery phase and required the Company's expertise for further development. Accordingly, the Research Licenses are not considered distinct.
- Research and Development Services – the Company provides research and development services that are performed on behalf of, or with, Allergan. As discussed within Research Licenses above, the Company's licenses have historically held no value without the specialized research and development services. As the Company generally only provides research and development services for internally generated small molecules that modulate NMDArs which require a license to be utilized by a third party, the Research and Development Services are not considered distinct.
- Joint Steering Committee – the Company actively participates in a joint steering committee, which allows the Company and its collaboration partner to direct the progression and prioritization of the joint discovery programs. As the steering committee would not occur or benefit the customer without the use of the Research Licenses and the related Research and Development Services, and given the Company's proprietary knowledge of the Research Licenses and the NMDAr technologies, this is not considered distinct.

The Company also evaluated whether the option granted to the customer to acquire additional goods or services represented a material right at contract inception. Upon Allergan's exercise of one of its options, the Company is obligated to transfer control of all intellectual property relating to the optioned compound to Allergan, after which the Company has no further interest in, or continuing involvement with, such optioned compound. The Company evaluated the customer options for material rights, that is, whether the option was to acquire additional goods or services for free or at a discount, and concluded that the options are priced, at contract inception, at standalone selling price. Consequently, the customer options do not represent a performance obligation at the outset of the arrangement since they are contingent upon the option exercise which is outside of the Company's control.

The Company has concluded that there is a single combined performance obligation (comprising the Research Licenses, Research and Development Services and participation on the Joint Steering Committee) which is satisfied over time, as the research and development services are performed. The exercise of the option to acquire exclusive rights to develop and commercialize AGN-241751 or any future options exercised are not considered a performance obligation until the time of option exercise.

Transaction Price

The RCA includes both fixed and variable consideration. Fixed payments, such as contractually defined fees per full-time employee ("FTE"), are included in the transaction price at contract inception, while variable consideration, such as reimbursement for Research and Development Services, are estimated and then evaluated for constraints upon inception of the contract and evaluated on a quarterly basis thereafter. Research and Development Services are updated for actual invoices. There were no capitalized costs associated with obtaining the contract.

The Company concluded that it will use an input method to measure proportional performance and to calculate the corresponding amount of revenue to recognize. The Company uses fixed FTE efforts and variable out-of-pocket costs as actual costs incurred relative to the annual budget research plan to measure progress towards fulfillment of the performance obligation. An input method of revenue recognition requires management to make estimates of costs to complete the Company's performance obligations. In making such estimates, significant judgment is required to evaluate assumptions related to cost estimates. The cumulative effect of revisions to estimated costs to complete the Company's performance obligations will be recorded in the period in which changes are identified and amounts can be reasonably estimated. The Company does not anticipate significant changes as the research plan is reviewed and adjusted annually and approved by the JSC. There are no significant financing components in the contract.

The Company has determined that the option fee is representative of standalone selling price and concluded that it will recognize revenue for the option fee at a point in time, on the date of exercise, due to the significant uncertainty of whether or not Allergan would exercise the option. The Company recognizes the option fee at a point in time because control of the underlying intellectual property transfers to the customer, and the customer is able to use and benefit from the license. The Company has no further rights, interests or remaining performance obligations associated with any optioned compound, once exercised.

During each of the three months ended September 30, 2019 and 2018, the Company recorded expenses of $1.9 million for certain development activities in accordance with the terms of the RCA, of which 50% was reimbursed by Allergan. The Company received reimbursements of $0.9 million during each of the three months ended September 30, 2019 and 2018. During the nine months ended September 30, 2019 and 2018, the Company recorded expenses of $5.5 million and $5.8 million, respectively, for certain development activities in accordance with the terms of the RCA, of which 50% was reimbursed by Allergan. The Company received reimbursements of $2.8 million and $2.9 million during the nine months ended September 30, 2019 and 2018, respectively. Such reimbursements were reported within collaboration revenue in the condensed statements of operations. All of the Company's accounts receivables as of both September 30, 2019 and December 31, 2018 relate to amounts owed by Allergan under the RCA. On May 16, 2018, Allergan exercised its option to acquire exclusive rights to develop and commercialize AGN-241751 within a specific set of indications. For the three and nine months ended September 30, 2018, the Company recognized the $1.0 million non-refundable milestone payment within collaboration revenue in the condensed statements of operations as there were no remaining performance obligations associated with the optioned compound.

5. Fair value measurements

ASC 820, *Fair Value Measurement* ("ASC 820"), establishes a fair value hierarchy for instruments measured at fair value that distinguishes between assumptions based on market data (observable inputs) and the Company's own assumptions (unobservable inputs). ASC 820 identifies fair value as the exchange price, or exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As a basis for considering market participant assumptions in fair value measurements, ASC 820 establishes a three-tier fair value hierarchy that distinguishes between the following:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability. Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

The carrying values reported in the Company's balance sheets for cash and cash equivalents, restricted cash, accounts receivable, accounts payable, and accrued expenses are reasonable estimates of their fair values due to the short-term nature of these items.

Assets measured at fair value as of September 30, 2019 are as follows (in thousands):

	September 30, 2019	Level 1	Level 2	Level 3
Assets				
Money market funds, included in cash and cash equivalents	$ 114,059	$ 114,059	$ —	$ —
Money market funds, included in restricted cash	179	179	—	—
Money market funds, included in other assets	166	166	—	—
	$ 114,404	$ 114,404	$ —	$ —

Assets measured at fair value as of December 31, 2018 are as follows (in thousands):

	December 31, 2018	Level 1	Level 2	Level 3
Assets				
Money market funds, included in cash and cash equivalents	$ 150,151	$ 150,151	$ —	$ —
Money market funds, included in restricted cash	252	252	—	—
Money market funds, included in other assets	239	239	—	—
	$ 150,642	$ 150,642	$ —	$ —

6. Property and equipment

Property and equipment are as follows (in thousands):

	As of September 30, 2019	As of December 31, 2018
Computer software and equipment	$ 15	$ 15
Office equipment and furniture	176	176
Laboratory equipment	1,614	1,571
Leasehold improvements	1,051	1,051
Less accumulated depreciation	(1,526)	(1,123)
Property and equipment, net	$ 1,330	$ 1,690

Depreciation expense was $0.1 million for each of the three months ended September 30, 2019 and 2018, and $0.4 million for each of the nine months ended September 30, 2019 and 2018.

7. Stock incentive plans

On June 5, 2018, the Company's stockholders approved the 2018 Stock Option and Incentive Plan (the "2018 Plan"), which became effective on June 20, 2018. The 2018 Plan provides for an annual increase, to be added on the first day of each fiscal year, of up to 4% of the Company's outstanding shares of common stock as of the last day of the prior year. On January 1, 2019, 1,341,436 shares of common stock were added to the 2018 Plan. The number of shares available for grant under the Company's 2018 Plan as of September 30, 2019 was 2,809,289 which includes 505,046 shares of the Company's common stock reserved under the Company's 2015 Stock Option and Grant Plan (the "2015 Plan") that became available for issuance upon the effectiveness of the 2018 Plan. No future issuance will be made under the 2015 Plan.

Stock-based compensation expense

Non-cash stock-based compensation expense recognized in the accompanying condensed statements of operations relating to both stock options, restricted stock awards and restricted stock units for the three and nine months ended September 30, 2019 and 2018 was as follows (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Research and development	$ 816	$ 242	$ 2,181	$ 616
General and administrative	1,825	478	4,785	1,368
Total stock-based compensation expense	$ 2,641	$ 720	$ 6,966	$ 1,984

Stock options

The table below summarizes activity related to stock options (in thousands, except per share amounts):

Options	Shares	Weighted-average exercise price	Weighted-average remaining contractual term	Aggregate intrinsic value
Outstanding, December 31, 2018	3,959	$ 7.46	8.79	$ 35,984
Granted	1,663	12.77		
Exercised	(142)	1.99		
Forfeited and canceled	(522)	11.91		
Outstanding, September 30, 2019	4,958	$ 8.93	8.45	$ 1,356
Vested and expected to vest at September 30, 2019	4,958	$ 8.93	8.45	$ 1,356
Exercisable at September 30, 2019	1,877	$ 5.37	7.90	$ 968

During the nine months ended September 30, 2019 and 2018, the Company granted 1.7 million and 2.4 million stock options, respectively and these options had a weighted-average grant-date fair value of $8.36 and $9.95 per share, respectively. The weighted-average grant-date fair value of options was determined using the Black-Scholes option-pricing model. The assumptions used in the Black-Scholes option-pricing model for options granted during the three and nine months ended September 30, 2019 were similar to those as described in the Annual Report. As of September 30, 2019, there was $20.4 million of total unrecognized stock-based compensation expense related to non-vested stock options which is expected to be recognized over a weighted-average period of 2.90 years. The options have a ten-year life and generally vest over a period of four years, subject to continuous employment.

Restricted stock awards

Non-cash restricted stock award expense recognized in the accompanying condensed statements of operations was $0.1 million for each of the three months ended September 30, 2019 and 2018 and $0.3 million for each of the nine months ended September 30, 2019 and 2018. The total fair value of shares that vested in the nine months ended September 30, 2019 was $0.2 million. At September 30, 2019, there was less than $0.1 million of unrecognized compensation cost related to 3,632 unvested restricted stock awards that will be recognized as expense over a weighted-average period of less than 0.01 years.

Restricted stock units

In May 2019, the Company issued an aggregate of 1,183,400 shares of restricted stock units to employees. The restricted stock units vest in two years from the date of grant. The Company at any time may accelerate the vesting of the restricted stock units. Such shares are not accounted for as outstanding until they vest. There are 2,166 shares of common stock underlying restricted stock units outstanding as of September 30, 2019.

The table below summarizes activity related to restricted stock units (in thousands, except per share amounts):

	Shares	Weighted-average grant date fair value per share
Unvested as of December 31, 2018	-	$ -
Issued	1,183	$ 3.63
Vested	(2)	3.63
Forfeited and canceled	(26)	3.63
Unvested as of September 30, 2019	1,155	$ 3.63

Non-cash restricted stock unit award expense recognized in the accompanying condensed statements of operations was $0.6 million and $0.8 million for the three and nine months ended September 30, 2019, respectively. At September 30, 2019, there was $3.4 million of unrecognized compensation related to 1,154,934 unvested restricted stock units that will be recognized as expense over a weighted-average period of 1.63 years.

8. Net loss per share

Basic and diluted net loss per share attributable to common stockholders was calculated as follows for the three and nine months ended September 30, 2019 and 2018 (in thousands, except per share data):

	Three months ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Numerator:				
Net loss attributable to common stockholders	$ (14,790)	$ (14,181)	$ (43,632)	$ (39,188)
Denominator:				
Weighted-average common shares outstanding—basic and diluted	33,646	33,191	33,510	15,789
Net loss per share attributable to common stockholders—basic and diluted	$ (0.44)	$ (0.43)	$ (1.30)	$ (2.48)

The following common stock equivalents outstanding as of September 30, 2019 and 2018, were excluded from the computation of diluted net loss per share attributable to common stockholders for the periods presented because including them would have been anti-dilutive (in thousands):

	As of September 30,	
	2019	2018
Stock options issued and outstanding	4,958	3,937
Unvested restricted stock	1,159	268
Total	6,117	4,205

9. Income taxes

Deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Valuation allowances are provided if based upon the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. The Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets, including its net operating losses. Based on its history of operating losses, the Company believes that it is more likely than not that the benefit of its deferred tax assets will not be realized. Accordingly, the Company has provided a full valuation allowance for deferred tax assets as of September 30, 2019 and December 31, 2018.

10. Commitments and contingencies

Contingencies

From time to time, the Company may be subject to occasional lawsuits, investigations and claims arising out of the normal conduct of business. The Company has no significant pending or threatened litigation as of September 30, 2019.

Indemnifications

In the normal course of business, the Company enters into contracts that contain a variety of indemnifications with its employees, licensors, suppliers and service providers. Further, the Company indemnifies its directors and officers who are, or were, serving at the Company's request in such capacities. The Company's maximum exposure under these arrangements is unknown at September 30, 2019. The Company does not anticipate recognizing any significant losses relating to these arrangements.

Leases

The Company enters into various non-cancelable, operating lease agreements for its facilities and equipment in order to conduct its operations. The Company expenses rent on a straight-line basis over the life of the lease and has recorded deferred rent on the Company's balance sheets within both accrued expenses and other current liabilities and other long-term liabilities.

Total rent expense, inclusive of lease incentives, under all the operating lease agreements amounted to $0.2 million for each of the three months ended September 30, 2019 and 2018 and $0.6 million and $0.5 million for the nine months ended September 30, 2019 and 2018, respectively.

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

The following discussion should be read in conjunction with our condensed financial statements and accompanying footnotes appearing elsewhere in this Quarterly Report on Form 10-Q and our audited financial statements and related footnotes included in our Annual Report on Form 10-K for the year ended December 31, 2018, or Annual Report, filed with the Securities and Exchange Commission, or the SEC, on March 21, 2019.

Some of the information contained in this discussion and analysis or set forth elsewhere in this Quarterly Report on Form 10-Q, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. See "Special Note Regarding Forward-Looking Statements." Because of many factors, including those factors set forth in the "Risk Factors" section of our Annual Report, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis. We do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

Overview

We are a clinical-stage biopharmaceutical company focused on the discovery, development, and commercialization of novel, proprietary, synthetic small molecules for the treatment of brain and nervous system disorders. We focus our efforts on targeting and modulating N-methyl-D-aspartate receptors, or NMDArs, which are vital to normal and effective function of the brain and nervous system. We believe leveraging the therapeutic advantages of the differentiated modulatory mechanism of our compounds will drive a paradigm shift in the treatment of disorders of the brain and nervous system.

We are advancing a pipeline of distinct product candidates derived from our NMDAr modulator discovery platform. We currently have three wholly owned, clinical-stage product candidates in development for various central nervous system, or CNS, disorders. Each of our development-stage assets has unique pharmacological properties, including with regard to binding, NMDAr subtype selectivity, potency, and activity in preclinical behavioral models. These unique properties inform the identification of the indication(s) for which each product candidate is developed.

Our product candidate, NYX-2925, is a novel, oral small-molecule NMDAr modulator that has demonstrated effects on biomarkers of pain processing as well as alleviation of pain and other symptoms in clinical studies. NYX-2925 is currently in Phase 2 clinical development as a treatment for chronic pain. In June 2019, we reported positive results from a 23-patient, sequential design, Phase 2 neuroimaging biomarker study in which NYX-2925 was shown to have statistically significant effects on pain-processing biomarkers and patient-reported measures of pain and other fibromyalgia symptoms. NYX-2925 has also been evaluated in a Phase 2 study in patients with painful diabetic peripheral neuropathy, or DPN. In the total study population (N=300), the primary endpoint was not met; however, a post-hoc sub-group analysis revealed robust analgesic activity in a large subset of patients—patients with advanced DPN (i.e. □ 4 years since DPN diagnosis, N=127)—in which the preponderance of patients' pain is most likely to be centrally mediated and addressed by the central mechanism of NYX-2925. Together, the effects on neuroimaging biomarkers and the robust analgesic effects observed in these two studies strongly support the continued development of NYX-2925 for centralized chronic pain conditions. In a Phase 1 single- and multiple-ascending dose study, NYX-2925 demonstrated a predictable and dose-dependent pharmacokinetic profile, achieving CNS exposure levels in line with brain exposure shown with preclinically efficacious doses. Additionally, NYX-2925 has demonstrated effects on NMDA receptor-dependent pathways across two Phase 1 EEG studies in healthy volunteers. Across all clinical studies conducted with NYX-2925 to date, it has been safe and well tolerated with no drug-related serious adverse events reported.

In follow up to the previous Phase 2 studies, we recently initiated two additional Phase 2 studies of NYX-2925 across two chronic pain conditions, painful DPN and fibromyalgia. The Phase 2 study in patients with painful DPN is a randomized, double-blind, placebo-controlled, study designed to assess the safety and efficacy of NYX-2925. The study will recruit patients with advanced DPN – patients with a longer disease duration. The study will enroll approximately 200 patients who will be randomized to receive daily oral doses of 50 mg NYX-2925 or placebo. The primary endpoint in the study is the change from baseline on average daily pain scores over a 12-week period as reported on the 10-point numeric rating scale, or NRS. The Company expects to report top-line data from this study in late 2020 or early 2021.

The Phase 2 study in patients with fibromyalgia is a randomized, double-blind, placebo-controlled study designed to assess the safety and efficacy of NYX-2925. The study will enroll approximately 300 patients who will be randomized to receive 50 mg NYX-2925, 100 mg NYX-2925, or placebo. The primary endpoint of the study is the change from baseline on average daily pain scores over a 12-week period as reported on the 10-point NRS. The Company expects to report top-line data from this study in the first half of 2021.

The Phase 2 study in patients with fibromyalgia is a randomized, double-blind, placebo-controlled study designed to assess the safety and efficacy of NYX-2925. The study will enroll approximately 300 patients and will include a 14-week treatment period during which patients will receive 50 mg NYX-2925, 100 mg NYX-2925, or placebo. The primary endpoint of the study will be the change from baseline on average daily pain scores as reported on the 10-point NRS. The Company expects to report top-line data from this study in the first half of 2021.

Our product candidate, NYX-783, is a novel, oral, small-molecule NMDAr modulator currently in Phase 2 clinical development for the treatment of post-traumatic stress disorder, or PTSD. NYX-783 has demonstrated robust activity in preclinical models of psychiatric disorders as well as models of fear conditioning and extinction learning. Based on these preclinical data and its mechanism of action, we believe NYX-783 has the potential to address the underlying learning and memory dysfunction that underpins PTSD. In a Phase 1 study conducted in healthy volunteers, NYX-783 was shown to be safe and well tolerated with no related serious adverse events. In the same Phase 1 study, NYX-783 demonstrated a predictable, dose-dependent, linear pharmacokinetic profile, and also achieved CNS exposure levels in line with brain exposure shown with preclinically efficacious doses. We are currently evaluating NYX-783 in a Phase 2 clinical study in approximately 150 patients suffering from PTSD to assess its safety and efficacy. We expect to report data from this study in the second half of 2020.

Our product candidate, NYX-458, is a novel, oral, small-molecule NMDAr modulator in clinical development for the treatment of cognitive impairment associated with Parkinson's disease. NYX-458 has exhibited marked effects on cognitive performance across a number of preclinical models. In studies conducted in non-human primates, NYX-458 has been shown to improve cognitive deficits akin to those seen in patients with Parkinson's disease. In the studies, NYX-458 demonstrated rapid, robust, and long-lasting effects on attention, working memory, and cognitive flexibility, did not have any negative effects on motor symptoms, and did not interfere with the anti-parkinsonian effects of levodopa, the standard of care for treating the motor symptoms of Parkinson's disease. In a Phase 1 study in healthy human volunteers NYX-458 was shown to be safe and well tolerated with no related serious adverse events. NYX-458 demonstrated a linear and predictable pharmacokinetic profile and was found to readily achieve CNS concentrations in line with concentrations of preclinically efficacious dose levels. In the fourth quarter of 2019, we expect to initiate a Phase 2 study of NYX-458 in patients with Parkinson's disease mild cognitive impairment.

Since our inception in June 2015, we have never generated revenue from the sale of our products and have incurred significant net losses. Our nominal revenues have been primarily derived from a research collaboration agreement with Allergan plc, or Allergan, a development services agreement with Allergan, and research and development grants from the U.S. government. While these revenues offset a small portion of the costs associated with our early stage research and discovery efforts, we do not rely on these revenues to fund our operations.

From our inception through September 30, 2019, we have raised an aggregate of $135 million of gross proceeds from sales of our convertible preferred stock and $117.8 million of gross proceeds from our initial public offering, or IPO. See "Liquidity and capital resources." Our net losses were $53.3 million and $32.1 million for the years ended December 31, 2018 and 2017, respectively, and $43.6 million and $39.2 million for the nine months ended September 30, 2019 and 2018, respectively. As of September 30, 2019, we had an accumulated deficit of $149.2 million. Our net losses may fluctuate significantly from quarter to quarter and year to year. We expect to continue to incur significant expenses and operating losses for the foreseeable future. We anticipate that our expenses will continue to increase in connection with our ongoing activities.

We do not expect to generate revenue from product sales unless and until we successfully complete clinical development and obtain regulatory approval for a product candidate, which we expect will take a number of years and the outcome of which is uncertain, or enter into collaborative agreements with third parties, the timing of which is largely beyond our control and may never occur. To fund our current and future operating plans, we may need additional capital, which we

may obtain through one or more equity offerings, debt financings, or other third-party funding, including potential strategic alliances and licensing or collaboration arrangements. We may, however, be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. Our failure to raise capital or enter into such other arrangements as and when needed would have a negative impact on our financial condition and our ability to develop our current product candidates, or any additional product candidates, if developed. The amount and timing of our future funding requirements will depend on many factors, including the pace and results of our preclinical and clinical development efforts. We cannot assure that we will ever be profitable or generate positive cash flow from operating activities.

Financial operations overview

Revenues

We have not generated any revenue from product sales. We are unable to predict when, if ever, material net cash inflows will commence from sales of our products, if approved. Our revenue to date has been primarily derived from a research collaboration agreement with Allergan; a development services agreement with Allergan, which was put in place to continue certain development activities for a pre-determined period of time following Allergan's acquisition of Naurex Inc. and research and development grants from the U.S. government which have no repayment or royalty obligations.

Operating expenses

Research and development expenses

Research and development activities account for a significant portion of our operating expenses. We expense research and development costs as incurred. Research and development expenses consist of costs incurred in connection with the development of our product candidates, including:

- fees paid to consultants, sponsored researchers, contract manufacturing organizations, or CMOs, and contract research organizations, or CROs, including in connection with our preclinical and clinical studies, and other related clinical study fees, such as for investigator grants, patient screening, laboratory work, clinical study database management, and statistical compilation and analysis;
- costs related to acquiring and maintaining preclinical and clinical study materials and facilities;
- costs related to compliance with regulatory requirements; and
- costs related to salaries, bonuses, and other compensation for employees in research and development functions.

At this time, we cannot reasonably estimate or know the nature, timing, and costs of the efforts that will be necessary to complete the development of our product candidates. This is due to the numerous risks and uncertainties associated with developing such product candidates, including the uncertainty related to:

- future clinical study results; the scope, rate of progress, and expense of our ongoing as well as any additional preclinical studies, clinical studies and other research and development activities;
- clinical study enrollment rate;
- clinical study design;
- the manufacturing of our product candidates;
- our ability to obtain, maintain, defend and enforce intellectual property protection for our product candidates;
- significant and changing government regulation;
- establishing commercial manufacturing capabilities or making arrangements with third-party manufacturers, developing and timely delivery of commercial-grade drug formulations that can be used in our clinical trials and for commercial launch;
- the timing and receipt of any regulatory approvals; and
- the risks disclosed in the section entitled “Risk Factors” included in our Annual Report.

A change in the outcome of any of these variables with respect to the development of any of our product candidates could significantly change the costs, timing, and viability associated with the development of that product candidate.

We expect our research and development expenses to increase over the next several years as we continue to implement our business strategy, which includes advancing our product candidates into and through clinical development, expanding our research and development efforts, seeking regulatory approvals for any product candidates for which we successfully complete clinical studies, accessing and developing additional product candidates, and hiring additional personnel to support our research and development efforts. In addition, product candidates in later stages of clinical development generally incur higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical studies. As such, we expect our research and development expenses to increase as our product candidates advance into later stages of clinical development.

General and administrative expenses

General and administrative expenses consist primarily of salaries and related costs, including stock-based compensation. General and administrative expenses also include rent as well as professional fees for legal, consulting, accounting, and audit services.

In the future, we expect that our general and administrative expenses will increase as we continue to support our research and development and the potential commercialization of our product candidates, if approved. We also anticipate that we will incur increased accounting, audit, legal, tax, regulatory, compliance, and director and officer insurance costs, as well as investor and public relations expenses associated with maintaining compliance with exchange listing and SEC requirements.

Other income

Other income consists primarily of the interest income earned on our cash and cash equivalents.

Results of operations

Comparison of the three months ended September 30, 2019 and 2018

The following table summarizes our results of operations for the three months ended September 30, 2019 and 2018 (in thousands):

	Three months ended September 30,		Increase (Decrease)
	2019	2018	
Collaboration revenue	$ 936	$ 943	$ (7)
Operating expenses:			
Research and development	11,761	11,950	(189)
General and administrative	4,523	3,782	741
Total operating expenses	16,284	15,732	552
Loss from operations	(15,348)	(14,789)	559
Other income	558	608	(50)
Net loss and comprehensive loss	$ (14,790)	$ (14,181)	$ 609

Collaboration revenue

Collaboration revenue was $0.9 million for each of the three months ended September 30, 2019 and 2018, and is attributable to the research collaboration with Allergan.

Research and development expenses

The following table summarizes our research and development expenses incurred during the three months ended September 30, 2019 and 2018 (in thousands):

	Three months ended September 30,		Increase
	2019	2018	(Decrease)
NYX-2925	$ 3,755	$ 5,791	$ (2,036)
NYX-783	1,765	360	1,405
NYX-458	1,412	867	545
Preclinical research and discovery programs	1,590	1,710	(120)
Personnel and related costs	3,239	3,222	17
Total research and development expenses	$ 11,761	$ 11,950	$ (189)

Research and development expenses were $11.8 million for the three months ended September 30, 2019, compared to $12.0 million for the three months ended September 30, 2018. The decrease of $0.2 million was primarily due to the following:

- approximately $2.0 million decrease for clinical, regulatory, and drug product costs related to NYX-2925, as a result of the completion of our enrollment efforts for our Phase 2 clinical study in patients with painful DPN in 2018 and enrollment efforts for our Phase 2 clinical study in patients with fibromyalgia completed in the first half of 2019 partially offset by activities relating in the initiation of two Phase 2 chronic pain studies, and two Phase 1 exploratory pharmacodynamic clinical studies that commenced and completed in 2018;
- approximately $1.4 million increase for clinical, regulatory, and drug product costs related to the ongoing development of NYX-783 for the treatment of PTSD;
- approximately $0.5 million increase for clinical, regulatory and drug product costs related to the ongoing development of NYX-458 for the treatment of Parkinson's disease cognitive impairment;
- approximately $0.1 million decrease for costs associated with our preclinical research efforts with external research organizations; and
- approximately less than $0.1 million increase for costs related to employee compensation and related support.

General and administrative expenses

General and administrative expenses were $4.5 million for the three months ended September 30, 2019, compared to $3.8 million for the three months ended September 30, 2018. The increase of $0.7 million was driven by increased costs related to employee compensation due to increased headcount, professional fees and insurance costs to support ongoing business operations, patent-related matters, and to comply with obligations associated with being a publicly traded company.

Other income

We recorded $0.6 million of other income for each of the three months ended September 30, 2019 and 2018. This was due to interest income earned on our cash and cash equivalents.

Comparison of the nine months ended September 30, 2019 and 2018

The following table summarizes our results of operations for the nine months ended September 30, 2019 and 2018 (in thousands):

	Nine months ended September 30,		Increase
	2019	2018	(Decrease)
Collaboration revenue	$ 2,751	$ 3,893	$ (1,142)
Grant revenue	—	1,642	(1,642)
Total revenues	2,751	5,535	(2,784)
Operating expenses:			
Research and development	33,732	37,860	(4,128)
General and administrative	14,419	7,853	6,566
Total operating expenses	48,151	45,713	2,438
Loss from operations	(45,400)	(40,178)	5,222
Other income	1,768	990	778
Net loss and comprehensive loss	$ (43,632)	$ (39,188)	$ 4,444

Collaboration revenue

Collaboration revenue was $2.8 million and $3.9 million for the nine months ended September 30, 2019 and 2018, respectively, and is attributable to the research collaboration with Allergan. The decrease was predominantly attributable to the $1.0 million associated with Allergan's exercise of its option in May 2018 to acquire exclusive rights to develop and commercialize AGN-241751.

Grant revenue

The decrease of $1.6 million of grant revenue was primarily driven by a reduction in our research and development costs incurred under our grants from the U.S. government as the activities underpinning our outstanding grants were completed in the first half of 2018, and accordingly, we did not generate any grant-related revenue for the nine months ended September 30, 2019.

Research and development expenses

The following table summarizes our research and development expenses incurred during the nine months ended September 30, 2019 and 2018 (in thousands):

	Nine months ended September 30,		Increase
	2019	2018	(Decrease)
NYX-2925	$ 7,717	$ 17,355	$ (9,638)
NYX-783	5,518	2,654	2,864
NYX-458	4,886	2,385	2,501
Preclinical research and discovery programs	4,685	5,804	(1,119)
Personnel and related costs	10,926	9,662	1,264
Total research and development expenses	$ 33,732	$ 37,860	$ (4,128)

Research and development expenses were $33.7 million for the nine months ended September 30, 2019, compared to $37.9 million for the nine months ended September 30, 2018. The decrease of $4.2 million was primarily due to the following:

- approximately $9.6 million decrease for clinical, regulatory, and drug product costs related to NYX-2925, as a result of the completion of our enrollment efforts for our Phase 2 clinical study in patients with painful DPN in

2018 and for our Phase 2 clinical study in patients with fibromyalgia in the first half of 2019, and two Phase 1 exploratory pharmacodynamic clinical studies that were commenced and completed in 2018;
- approximately $2.9 million increase for clinical, regulatory, and drug product costs related to the ongoing development and movement into Phase 2 clinical development of NYX-783 for the treatment of PTSD in 2019;
- approximately $2.5 million increase for clinical, regulatory and drug product costs related to the ongoing development of NYX-458 for the treatment of Parkinson's disease cognitive impairment;
- approximately $1.1 million decrease for costs associated with our preclinical research efforts with external research organizations; and
- approximately $1.3 million increase for costs related to employee compensation and related support.

General and administrative expenses

General and administrative expenses were $14.4 million for the nine months ended September 30, 2019, compared to $7.9 million for the nine months ended September 30, 2018. The increase of $6.5 million was driven by increased costs related to employee compensation due to increased headcount, increased professional fees and insurance costs to support ongoing business operations, patent-related matters, and to comply with obligations associated with being a publicly traded company.

Other income

We recorded $1.8 million of other income for the nine months ended September 30, 2019, compared to $1.0 million for the nine months ended September 30, 2018. This was due to increased interest income earned on our cash and cash equivalents.

Liquidity and capital resources

From our inception through September 30, 2019, we have incurred significant operating losses and have funded our operations to date through proceeds from collaborations, grants, sales of convertible preferred stock, and our IPO. We have generated limited revenue to date from a research collaboration agreement with Allergan, a development services agreement with Allergan, and research and development grants from the U.S. government.

On June 25, 2018, we completed our IPO, pursuant to which we issued and sold 7,359,998 shares of our common stock at a price of $16.00 per share, which included 959,999 shares sold pursuant to the exercise of the underwriters' option to purchase additional shares. We received $106.5 million of proceeds, net of underwriting discounts and commissions and other offering expenses.

On July 1, 2019, we entered into a Sales Agreement (the "Sales Agreement") with Cowen and Company, LLC ("Cowen"), pursuant to which we may issue and sell, from time to time, shares of our common stock having an aggregate offering price of up to $50.0 million through Cowen as sales agent. Cowen may sell common stock by any method permitted by law deemed to be an "at the market offering" as defined in Rule 415(a)(4) of the Securities Act, including sales made directly on or through the Nasdaq Global Select Market or any other existing trade market for the common stock, in negotiated transactions at market prices prevailing at the time of sale or at prices related to prevailing market prices, or any other method permitted by law. Cowen will be entitled to receive 3.0% of the gross sales price per share of common stock sold under the Sales Agreement. As of September 30, 2019, no shares of common stock have been issued and sold pursuant to the Sales Agreement.

As of September 30, 2019, we had cash and cash equivalents of $114.2 million. We invest our cash equivalents in liquid money market accounts.

Funding requirements

Our primary uses of capital are, and we expect will continue to be, research and development services, compensation and related expenses, product manufacturing, laboratory and related supplies, legal and other regulatory expenses, patent prosecution filing and maintenance costs for our licensed intellectual property and general overhead costs. We expect to

continue incurring significant expenses and operating losses for the foreseeable future. In addition, since the closing of our IPO, we have incurred, and expect to incur, additional costs associated with operating as a public company. We anticipate that our expenses will increase in connection with our ongoing activities, as we:

- advance the clinical development of our lead product candidates;
- continue to improve the manufacturing process for our product candidates; and manufacture clinical supplies as development progresses;
- continue the research and development of our preclinical product candidates;
- seek to identify and develop additional product candidates;
- maintain, expend, and protect our intellectual property portfolio; and
- improve our operational, financial, and management systems to support our clinical development and other operations.

Outlook

Based on our research and development plans and our timing expectations related to the progress of our programs, we expect that our cash and cash equivalents as of September 30, 2019 will be sufficient to fund our operations for at least the next 12 months. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect.

We do not expect to generate revenue from product sales unless and until we successfully complete clinical development and obtain regulatory approval for a product candidate, which we expect will take a number of years and the outcome of which is uncertain, or enter into collaborative agreements with third parties, the timing of which is largely beyond our control and may never occur. We will continue to require additional capital to develop our product candidates and fund operations for the foreseeable future, which we may obtain through one or more equity offerings, debt financings, or other third-party funding, including potential strategic alliances and licensing or collaboration arrangements. We may, however, be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. Our failure to raise capital or enter into such other arrangements as and when needed would have a negative impact on our financial condition and our ability to develop our current product candidates, or any additional product candidates, if developed. The amount and timing of our future funding requirements will depend on many factors, including the pace and results of our preclinical and clinical development efforts. We cannot assure you that we will ever be profitable or generate positive cash flow from operating activities.

Cash flows

The following table summarizes our sources and uses of cash for each of the nine months ended September 30, 2019 and 2018 (in thousands):

	Nine months ended September 30,	
	2019	**2018**
Net cash provided by (used in):		
Operating activities	$ (36,627)	$ (32,465)
Investing activities	(43)	(391)
Financing activities	101	106,316
Net (decrease) increase in cash, cash equivalents and restricted cash	**$ (36,569)**	**$ 73,460**

Operating activities

During the nine months ended September 30, 2019, our cash used in operating activities was primarily due to our net loss of $43.6 million as we incurred increased external research and development costs with our clinical studies during the nine months ended September 30, 2019 and increased general and administrative costs, partially offset by non-cash

charges of $7.3 million, consisting primarily of $7.0 million in non-cash stock-based compensation and $0.3 million in depreciation and amortization. Net cash provided by changes in our operating assets and liabilities consisted of a $1.7 million use of cash driven by an increase in prepaid expenses and other current assets and a decrease in accounts payable partially offset by a $1.4 million source of cash driven by an increase in accrued expense and other liabilities and decrease in accounts receivable.

During the nine months ended September 30, 2018, our cash used in operating activities was primarily due to our net loss of $39.2 million as we incurred increased external research and development costs with our clinical studies during the nine months ended September 30, 2018 and increased general and administrative costs, partially offset by non-cash charges of $2.3 million, consisting primarily of $2.0 million in stock-based compensation and $0.3 million in depreciation and amortization. Net cash provided by changes in our operating assets and liabilities consisted of a $1.0 million decrease in accounts receivable, prepaid expenses and other current assets, and accounts payable partially offset by a $4.0 million increase in accrued expenses.

Investing activities

Net cash used in investing activities was less than $0.1 million during the nine months ended September 30, 2019, consisting of purchases of laboratory equipment.

Net cash used in investing activities was $0.4 million during the nine months ended September 30, 2018, consisting of purchases of property and equipment, primarily laboratory equipment and leasehold improvements.

Financing activities

Net cash provided by financing activities was $0.1 million during the nine months ended September 30, 2019, consisting of proceeds received from the exercise of stock options offset by payment of deferred offering costs.

Net cash used in financing activities was $106.3 million during the nine months ended September 30, 2018,consisting of $109.5 million of IPO proceeds, net of underwriting discounts and commissions, offset by $3.0 million of offering costs related to our IPO and additional costs of $0.2 million related to our Series B financing that closed in December 2017.

Critical accounting policies and significant judgments and estimates

This discussion and analysis of our financial condition and results of operations is based on our financial statements, which we have prepared in accordance with United States generally accepted accounting principles. The preparation of our financial statements and related disclosures requires us to make estimates, assumptions and judgments that affect the reported amount of assets, liabilities, revenue, costs and expenses, and related disclosures. Our critical accounting policies are described under the heading “Management’s Discussion and Analysis of Financial Condition and Results of Operations— Critical Accounting Policies and Significant Judgments and Estimates” in our Annual Report. There were no material changes to our critical accounting policies through September 30, 2019 from those discussed in our Annual Report.

Recent accounting pronouncements

See Note 2 to our condensed financial statements included elsewhere in this Quarterly Report on Form 10-Q.

Contractual obligations and other commitments

For a discussion of contractual obligations and other commitments affecting us, see the discussion under the heading “Management Discussion and Analysis of Financial Condition and Results of Operations – Contractual obligations and other commitments” included in our Annual Report.

There have been not been any material changes since December 31, 2018 to the Company’s contractual obligations and other commitments.

JOBS Act accounting election

Under Section 107(b) of the Jumpstart Our Business Startups Act of 2012, as amended, or the JOBS Act, an "emerging growth company" can delay the adoption of new or revised accounting standards until such time as those standards would apply to private companies. We intend to rely on this exemption. There are other exemptions and reduced reporting requirements provided by the JOBS Act that we are currently evaluating. For example, as an "emerging growth company," we are exempt from Sections 14A(a) and (b) of the Securities Exchange Act of 1934, as amended, or the Exchange Act,which would otherwise require us to (1) submit certain executive compensation matters to shareholder advisory votes, such as "say-on-pay," "say-on-frequency," and "golden parachutes;" and (2) disclose certain executive compensation related items such as the correlation between executive compensation and performance and comparisons of our chief executive officer's compensation to our median employee compensation. We also intend to rely on an exemption from the rule requiring us to provide an auditor's attestation report on our internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act of 2002. We will continue to remain an "emerging growth company" until the earliest of the following: (1) the last day of the fiscal year following the fifth anniversary of the date of the completion of our IPO; (2) the last day of the fiscal year in which our total annual gross revenue is equal to or more than $1.07 billion; (3) the date on which we have issued more than $1.0 billion in nonconvertible debt during the previous three years; or (4) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

Off-balance sheet arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Information requested by this Item 3. Quantitative and Qualitative Disclosures about Market Risk is not applicable as we are electing scaled disclosure requirements available to smaller reporting companies with respect to this Item.

Item 4. Controls and Procedures.

The Company has established disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) designed to ensure that information required to be disclosed in the reports that the Company files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and is accumulated and communicated to management, including the principal executive officer (our Chief Executive Officer) and principal financial officer (our Chief Financial Officer), to allow timely decisions regarding required disclosure. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Evaluation of disclosure controls and procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated, as of the end of the period covered by this Quarterly Report on Form 10-Q, the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act). 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 and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Our disclosure controls and procedures have been designed to provide reasonable assurance of achieving their objectives. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) were effective at the reasonable assurance level as of September 30, 2019.

Changes in internal control over financial reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the three months ended September 30, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

From time to time, we may be involved in lawsuits, claims, investigations and proceedings, consisting of intellectual property, commercial, employment and other matters which arise in the ordinary course of business. While the outcome of any such proceedings cannot be predicted with certainty, as of September 30, 2019, we were not party to any legal proceedings that we would expect to have a material adverse impact on our financial position, results of operations, or cash flow.

Item 1A. Risk Factors.

The discussion of our business and operations in this report should be read together with the risk factors contained in Item 1A of our Annual Report, which describe various risks and uncertainties to which we are or may become subject. These risks and uncertainties have the potential to affect our business, financial condition, results of operations, cash flows, strategies, or prospects in a material and adverse manner. There are no material changes from the risk factors as previously disclosed in our Annual Report.

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

None.

Use of Proceeds from our Public Offering of Common Stock

On June 25, 2018, we closed our IPO in which we issued and sold 6,399,999 shares of common stock at a public offering price of $16.00 per share, and issued an additional 959,999 shares of common stock at a price of $16.00 per share pursuant to the exercise of the underwriters' over-allotment option. All of the shares of common stock issued and sold in our IPO were registered under the Securities Act of 1933, as amended, pursuant to a registration statement on Form S-1 (Registration No. 333-225150), which was declared effective by the SEC on June 20, 2018. J.P. Morgan, Cowen, Leerink, and BMO Capital Markets acted as joint book-running managers for the offering. The aggregate gross proceeds to us from our IPO, inclusive of the over-allotment exercise, were $117.8 million.

The aggregate net proceeds to us from the public offering, inclusive of the over-allotment exercise, were approximately $106.5 million, after deducting underwriting discounts and commissions and other offering expenses payable by us of approximately $3.0 million. No offering expenses were paid directly or indirectly to any of our directors or officers (or their associates) or persons owning 10% or more of any class of our equity securities or to any other affiliates.

We are holding the net proceeds from the IPO in cash and cash equivalents. As described in our Annual Report, we expect to use the net proceeds from our IPO to fund our ongoing development of NYX-2925 for the treatment of chronic pain, NYX-783 for the treatment of PTSD, NYX-458 for the treatment of Parkinson's disease cognitive impairment, to explore NMDAr-dependent biomarkers, and to discover and develop additional product candidates from our discovery platform.

Item 3. Defaults Upon Senior Securities.

Not applicable.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

EXHIBIT INDEX

Exhibit Number	Description
31.1*	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended
31.2*	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended
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
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith.

\+ The certifications furnished in Exhibit 32.1 hereto are deemed to be furnished with this Quarterly Report on Form 10-Q and will not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, except to the extent that the Registrant specifically incorporates it by reference.

SIGNATURES

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

APTINYX INC.

Date: November 12, 2019 By: /s/ Norbert G. Riedel
Norbert G. Riedel
President and Chief Executive Officer
(Principal executive officer)

Date: November 12, 2019 By: /s/ Ashish Khanna
Ashish Khanna
Chief Financial Officer and Chief Business Officer
(Principal financial and accounting officer)

EXHIBIT 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO RULE 13a-14(a) / 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Norbert G. Riedel, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended September 30, 2019 ofAptinyx Inc.;

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

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

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

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

    b. (Paragraph omitted pursuant to SEC Release Nos. 33-8238/34-47986 and 33-8392/34-49313);

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

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

5. The registrant's other certifying officer(s) 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 12, 2019 By: /s/ Norbert G. Riedel

Norbert G. Riedel
President and Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO RULE 13a-14(a) / 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Ashish Khanna, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended September 30, 2019 ofAptinyx Inc.;

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

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

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

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

    b. (Paragraph omitted pursuant to SEC Release Nos. 33-8238/34-47986 and 33-8392/34-49313);

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

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

5. The registrant's other certifying officer(s) 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 12, 2019 By: /s/ Ashish Khanna

Ashish Khanna

Chief Financial Officer and Chief Business Officer
(Principal Financial and Accounting Officer)

EXHIBIT 32.1*

CERTIFICATIONS 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 on Form 10-Q of Aptinyx Inc. (the "Company") for the quarter ended September 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned hereby certify, pursuant to 18 U.S.C. Section 1350, that, to the best of their 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 Company.

/s/ Norbert G. Riedel
Norbert G. Riedel
President and Chief Executive Officer
(Principal Executive Officer)

Dated: November 12, 2019

/s/ Ashish Khanna
Ashish Khanna
Chief Financial Officer and Chief Business Officer

(Principal Financial and Accounting Officer)

Dated: November 12, 2019

* This certification shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.