



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

April 26, 2018

Norbert G. Riedel
Chief Executive Officer
Aptinyx Inc.
909 Davis Street, Suite 600
Evanston, IL 60201

Re: Aptinyx Inc.
Draft Registration Statement on Form S-1
Submitted March 30, 2018
CIK No. 0001674365

Dear Mr. Riedel:

We have reviewed your draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Draft Registration Statement on Form S-1

Prospectus Summary

Risks associated with our business, page 1

1. Please expand your disclosure to highlight the risk that concentration of share ownership will result in executive officers, directors, principal shareholders and their affiliates having the ability to exercise significant control over the Company after the offering, as discussed on page 62.

Implications of Being an Emerging Growth Company, page 5

2. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications.

Risk Factors, page 11

3. We note your disclosure on page 182 that your amended and restated bylaws will contain an exclusive forum provision. Please present risks related to the exclusive forum provision in a separately captioned risk factor, including a discussion that such a provision may limit a shareholder's ability to bring a claim in a judicial forum that it finds favorable for such disputes and may discourage lawsuits with respect to such claims.
4. It appears from your disclosure that you do not retain any commercialization rights to future payments with respect to any compound optioned by Allergan under your research and collaboration agreement. Please include a risk factor discussing the risk that you may fail to capitalize on compounds identified using your discovery platform that are optioned by Allergan for which the Company does not retain any commercialization rights to future payments.

Use of Proceeds, page 69

5. If any material amounts of other funds are necessary to accomplish the specified purposes for which the proceeds are to be obtained such as the completion of the planned Phase 2 clinical study for NYX-458, state the amounts and sources of such other funds needed for each such specified purpose and the sources thereof. Refer to Instruction 3 to Item 504 of Regulation S-K.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Critical Accounting Policies and Significant Judgements and Estimates

Determination of the Fair Value of Common Stock, page 88

6. Once you have an estimated offering price or range, please provide us an analysis explaining the reasons for the differences between the recent valuations of your common stock leading up to the initial public offering and the estimated offering price. This information will help facilitate our review of your accounting for equity issuances including stock compensation and beneficial conversion features.

Business, page 91

7. We note your disclosure on pages 79, 83 and 84 that you have received certain research and development grants from the U.S. government. Please disclose in this section whether there are any repayment or royalty obligations with respect to these grants.

NYX-2925

Preclinical data, page 110

8. Please revise your disclosure to indicate the dates on which you conducted the preclinical studies for NYX-2925. Please also tell us whether the examples shown represent results that were achieved consistently in the preclinical studies. Please make similar revisions with respect to your discussion of preclinical studies for your other product candidates.

Research collaboration agreement with Allergan, page 128

9. We note your disclosure that the research collaboration agreement will continue in effect until the expiration of the option period with respect to all collaboration compounds. Please expand your disclosure to include the option period and the specified anniversary of the effective date relevant to the research term under the agreement.

Employment Arrangements with Our Named Executive Officers, page 160

10. We note your disclosure in this section that you have entered into non-competition, non-solicitation, confidentiality and assignment agreements with each of your named executive officers. Please file these agreements as exhibits or tell us why you believe that you are not required to file such agreements pursuant to Item 601(b)(10) of Regulation S-K.

Principal Stockholders, page 176

11. Please revise your disclosure to identify the natural person or persons who have voting and investment control of the shares held by the entities affiliated with Adams Street Partners.

Notes to Financial Statements

4. Research collaboration and development services agreements with Allergan, page F-14

12. Please revise to identify the product candidate for which the collaboration and grant revenues were recorded, providing quantification by product candidate. Clearly disclose the nature of expenses that are reimbursable, clarifying what type of project expenses do not qualify for reimbursement.

General

13. Please provide us proofs of all graphics, visual, or photographic information you will provide in the printed prospectus prior to its use, for example in a preliminary prospectus. Please note that we may have comments regarding this material.

Norbert G. Riedel
Aptinyx Inc.
April 26, 2018
Page 4

You may contact Keira Nakada at 202-551-3659 or Kevin Vaughn at 202-551-3494 if you have questions regarding comments on the financial statements and related matters. Please contact Ada D. Sarmento at 202-551-3798 or Christine Westbrook at 202-551-5019 with any other questions.

Division of Corporation Finance
Office of Healthcare & Insurance

cc: Caitlin L. Murray, Esq.