
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D

**Under the Securities Exchange Act of 1934
(Amendment No. 1)**

APTINYX INC.

(Name of Issuer)

Common Stock, \$0.01 par value per share
(Title of Class of Securities)

03836N103
(CUSIP Number)

Patrick G. Enright
Managing Member
Longitude Capital Partners II, LLC
2740 Sand Hill Road, 2nd Floor
Menlo Park, CA 94025
(650) 854-5700

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

January 10, 2020
(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

(Continued on following pages)

1	NAMES OF REPORTING PERSONS	
	Longitude Capital Partners II, LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (see instructions) OO ¹	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 3,356,746 ²
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 3,356,746 ²
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 3,356,746 ²	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (see instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 7.7% ³	
14	TYPE OF REPORTING PERSON (see instructions) OO	

¹ The securities over which the Reporting Persons have shared voting and dispositive power were purchased using investment funds from limited partner investors of Longitude Venture II (as defined in Item 2(a) below).

² All shares are held of record by Longitude Venture II. Longitude Capital II (as defined in Item 2(a) below) is the general partner of Longitude Venture II and may be deemed to have voting, investment and dispositive power with respect to these securities. Patrick G. Enright, a member of the Issuer's board of directors and Juliet Tammenoms Bakker, are the managing members of Longitude Capital II and may each be deemed to share voting, investment and dispositive power with respect to these securities.

³ The percentage was calculated based on 43,846,631 shares of Common Stock outstanding as of January 14, 2020, as disclosed by the Issuer in its Rule 424b(5) Prospectus dated January 10, 2020 filed with the Securities and Exchange Commission on January 13, 2020.

1	NAMES OF REPORTING PERSONS Longitude Venture Partners II, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (see instructions) OO ¹	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 3,356,746 ²
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 3,356,746 ²
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 3,356,746 ²	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (see instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 7.7% ³	
14	TYPE OF REPORTING PERSON (see instructions) PN	

¹ The securities over which the Reporting Persons have shared voting and dispositive power were purchased using investment funds from limited partner investors of Longitude Venture II.

² All shares are held of record by Longitude Venture II. Longitude Capital II is the general partner of Longitude Venture II and may be deemed to have voting, investment and dispositive power with respect to these securities. Patrick G. Enright, a member of the Issuer's board of directors and Juliet Tammenoms Bakker, are the managing members of Longitude Capital II and may each be deemed to share voting, investment and dispositive power with respect to these securities.

³ The percentage was calculated based on 43,846,631 shares of Common Stock outstanding as of January 14, 2020, as disclosed by the Issuer in its Rule 424b(5) Prospectus dated January 10, 2020 filed with the Securities and Exchange Commission on January 13, 2020.

1	NAMES OF REPORTING PERSONS Patrick G. Enright	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (see instructions) OO ¹	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States of America	
	7	SOLE VOTING POWER 149,998 ²
	8	SHARED VOTING POWER 3,356,746 ³
	9	SOLE DISPOSITIVE POWER 149,998 ²
	10	SHARED DISPOSITIVE POWER 3,356,746 ³
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 3,506,744 ^{2, 3}	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (see instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 8.0% ⁴	
14	TYPE OF REPORTING PERSON (see instructions) IN	

- ¹ The securities over which the Reporting Persons may be deemed to share voting and dispositive power were purchased using investment funds from limited partner investors of Longitude Venture II.
- ² Consists of 95,000 shares of Common Stock and 54,998 shares of Common Stock underlying stock options granted to Patrick G. Enright for his service as a member of the Issuer's board of directors, which are exercisable within 60 days of January 14, 2020.
- ³ All shares are held of record by Longitude Venture II. Longitude Capital II is the general partner of Longitude Venture II and may be deemed to have voting, investment and dispositive power with respect to these securities. Patrick G. Enright, a member of the Issuer's board of directors and Juliet Tammenoms Bakker, are the managing members of Longitude Capital II and may each be deemed to share voting, investment and dispositive power with respect to these securities.
- ⁴ The percentage was calculated based on 43,901,629 shares of Common Stock outstanding, calculated as follows (i) 43,846,631 shares of Common Stock outstanding as of January 14, 2020, as disclosed by the Issuer in its Rule 424b(5) Prospectus dated January 10, 2020 filed with the Securities and Exchange Commission on January 13, 2020, plus (ii) 54,998 shares of Common Stock underlying stock options granted to Patrick G. Enright for his service as a member of the Issuer's board of directors, which are exercisable within 60 days of January 14, 2020.

1	NAMES OF REPORTING PERSONS Juliet Tammenoms Bakker	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (see instructions) OO ¹	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States of America	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 3,356,746 ²
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 3,356,746 ²
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 3,356,746 ²	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (see instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11 7.7% ³	
14	TYPE OF REPORTING PERSON (see instructions) IN	

¹ The securities over which the Reporting Persons may be deemed to share voting and dispositive power were purchased using investment funds from limited partner investors of Longitude Venture II.

² All shares are held of record by Longitude Venture II. Longitude Capital II is the general partner of Longitude Venture II and may be deemed to have voting, investment and dispositive power with respect to these securities. Patrick G. Enright, a member of the Issuer's board of directors and Juliet Tammenoms Bakker, are the managing members of Longitude Capital II and may each be deemed to share voting, investment and dispositive power with respect to these securities.

³ The percentage was calculated based on 43,846,631 shares of Common Stock outstanding as of January 14, 2020, as disclosed by the Issuer in its Rule 424b(5) Prospectus dated January 10, 2020 filed with the Securities and Exchange Commission on January 13, 2020.

Item 1. Security and Issuer.

This Schedule 13D (this “Statement”) is filed with respect to the common stock, par value \$0.01 per share (“Common Stock”), of Aptinyx Inc., a Delaware corporation (the “Issuer”). The address of the principal executive offices of the Issuer is 909 Davis Street, Suite 600, Evanston, Illinois 60201.

Item 2. Identity and Background.

(a) This Amendment No. 1 (“Amendment”) amends and supplements the Schedule 13D originally filed with the Securities and Exchange Commission (the “SEC”) on July 2, 2018 (the “Original Schedule 13D”), by Longitude Venture Partners II, L.P. (“Longitude Venture II”) and Longitude Venture II’s sole general partner Longitude Capital Partners II, LLC (“Longitude Capital II”, and together with Longitude Venture II, a “Reporting Entity”), and individuals Patrick G. Enright and Juliet Tammenoms Bakker (each a “Reporting Individual” and each Reporting Entity or Reporting Individual, a “Reporting Person”). The agreement among the Reporting Persons to file jointly in accordance with the provisions of Rule 13d-1(k)(1) under the Act is attached hereto as Exhibit 1. Each Reporting Person disclaims beneficial ownership of all securities reported in this Statement except to the extent of such Reporting Person’s pecuniary interest therein, other than those securities reported herein as being held directly by such Reporting Person. Only those items that are hereby reported are amended; all other items reported in the Original Schedule 13D remain unchanged. Information given in response to each item shall be deemed incorporated by reference in all other items, as applicable. Capitalized terms not defined in this Amendment have the meanings ascribed to them in the Original Schedule 13D.

Item 3. Source and Amount of Funds or Other Consideration.

Item 3 of the Original Schedule 13D is hereby amended to add the following language:

The Reporting Persons purchased an aggregate of 261,667 shares of Common Stock on January 14, 2020 in an underwritten public offering at a price per share of \$3.00, Longitude Capital II purchased 166,667 of such shares for cash consideration of \$500,001.00 and Patrick G. Enright purchased 95,000 of such shares for cash consideration of \$285,000.00 (the “January 2020 Public Offering”). Each of the Reporting Persons purchasing the shares in the January 2020 Public Offering used its own working capital to acquire such shares.

Item 5. Interest in Securities of the Issuer.

(a) and (b) See Items 7-11 of the cover pages of this Statement and Item 2 above.

(c) Except as reported in this Statement, none of the Reporting Persons has effected any transactions in the Issuer’s securities within the past 60 days.

(d) Under certain circumstances set forth in the limited partnership agreement of Longitude Venture II, the general partner and limited partners of Longitude Venture II may be deemed to have the right to receive dividends from, or the proceeds from, the sale of shares of the Issuer owned by such entity of which they are a partner.

(e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships With Respect to Securities of the Issuer.

In connection with the January 2020 Public Offering, Patrick G. Enright entered into a lock-up agreement (the “January 2020 Lock-up Agreement”) with the representative of the several underwriters. Pursuant to the Lock-up Agreement, Patrick G. Enright agreed not to sell or otherwise transfer any Common Stock or securities convertible into, exchangeable for or exercisable for Common Stock, for 90 days after the date of the final prospectus supplement relating to the January 2020 Public Offering without the prior consent of the representative, subject to certain exceptions.

The foregoing summary of the January 2020 Lock-up Agreement does not purport to be complete and is qualified in its entirety by reference to the January 2020 Lock-up Agreement, which is filed as an exhibit hereto and incorporated by reference herein.

Item 7. Material to be Filed as Exhibits.

Exhibit 6: Form of January 2020 Lock-up Agreement (incorporated by reference to Exhibit 1.1 Current Report on Form 8-K, as filed with the SEC on January 13, 2020)

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: February 12, 2020

LONGITUDE VENTURE PARTNERS II, L.P.

By: LONGITUDE CAPITAL PARTNERS II, LLC
Its: General Partner

By: /s/ Patrick G. Enright
Patrick G. Enright, Managing Member

LONGITUDE CAPITAL PARTNERS II, LLC

By: /s/ Patrick G. Enright
Patrick G. Enright, Managing Member

/s/ Patrick G. Enright
Patrick G. Enright

/s/ Juliet Tammenoms Bakker
Juliet Tammenoms Bakker