

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

**SCHEDULE 13D
Under the Securities Exchange Act of 1934
(Amendment No. 4)***

Vermillion, Inc.
(Name of Issuer)

Common Stock, par value \$0.001 per share
(Title of Class of Securities)

92407M206
(CUSIP Number)

**Richard McCormick
688 Pine Street
Burlington, VT 05401
(802) 923-3826**
(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

February 17, 2017
(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. []

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

* 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 the disclosures provided in a prior cover page.

The information required in 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).

1. Names of Reporting Persons.

Birchview Capital, LP

2. Check the Appropriate Box if a Member of a Group

(a) ☐

(b) ☒

3. SEC Use Only

4. Source of Funds (See Instructions)

AF

5. Check if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e)

☐

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	3,269,913*
	9.	Sole Dispositive Power	0
	10.	Shared Dispositive Power	3,269,913*

11. Aggregate Amount Beneficially Owned by Each Reporting Person

3,269,913*

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

☐

13. Percent of Class Represented by Amount in Row (11)

5.8%

14. Type of Reporting Person:

IA, PN

*This amount includes 491,980 Shares which may be acquired upon exercise of Warrants.

1. Names of Reporting Persons.

Matthew Strobeck

2. Check the Appropriate Box if a Member of a Group

(a) ☐

(b) ☒

3. SEC Use Only

4. Source of Funds (See Instructions)

AF

5. Check if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e)

☐

6. Citizenship or Place of Organization

United States

Number of Shares Beneficially Owned by Each Reporting Person With	7.	Sole Voting Power	0
	8.	Shared Voting Power	3,300,913*
	9.	Sole Dispositive Power	0
	10.	Shared Dispositive Power	3,300,913*

11. Aggregate Amount Beneficially Owned by Each Reporting Person

3,300,913*

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

☐

13. Percent of Class Represented by Amount in Row (11)

5.8%

14. Type of Reporting Person:

IN, HC

*This amount includes 491,980 Shares which may be acquired upon exercise of Warrants.

Item 1. Security and Issuer

This Amendment No. 4 to Schedule 13D ("Amendment No. 4") amends and supplements the Schedule 13D filed by Matthew Strobeck ("Mr. Strobeck") on June 21, 2013, as amended by Amendment No. 1, filed on September 9, 2014, Amendment No. 2, filed on January 22, 2015, and Amendment No. 3, filed on August 3, 2015 (collectively, the "Schedule 13D") with respect to the Common Stock, par value \$0.001 per share (the "Shares"), of Vermillion, Inc. (the "Issuer" or the "Company"), whose principal executive offices are located at 12117 Bee Caves Road, Building Three, Suite 100, Austin, TX 78738.

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

Item 3 of the Schedule 13D is hereby amended and supplemented as follows:

A total of \$150,000.85 was paid to acquire the Shares and the warrants (the "Warrants") acquired for the account of Birchview Fund LLC pursuant to the Purchase Agreement (defined and described in Item 4 herein). This amount includes \$140,586.60 paid to acquire 100,419 Shares and \$9,414.25 paid to acquire Warrants to purchase 75,314 Shares at an exercise price of \$1.80 per Share (the "Exercise Price"). The source of funds used to acquire such Shares and Warrants was the working capital of Birchview Fund LLC.

Item 4. Purpose of Transaction.

Item 4 of the Schedule 13D is hereby amended and supplemented as follows:

Birchview Fund LLC, along with other individuals and entities, (collectively, the "Investors") entered into a Securities Purchase Agreement (the "Purchase Agreement") with the Company dated February 13, 2017. Pursuant to the terms of the Purchase Agreement, on February 17, 2017, the date of the closing, the Issuer sold an aggregate of 3,747,125 Shares to the Investors for the price of \$1.40 per Share, including 100,419 Shares to Birchview Fund LLC. The Purchase Agreement contains customary terms regarding, among other things, representations and warranties and indemnification. Additionally, under the Purchase Agreement, the Company grants certain registration rights to the Investors. The Company is obligated to use commercially reasonable efforts to file a registration statement on Form S-3 no later than April 18, 2017, to register the resale of the Shares and the Shares that may be issued pursuant to the Warrants and to effect the registration no later than 90 days after the filing date. With certain exceptions, the Company is obligated to keep the registration statement effective until the later of February 17, 2019, the date by which all Shares and Shares that may be issued pursuant to the Warrants may be sold without volume or manner of sale restrictions which may be applicable to affiliates under Rule 144 or the date by which all Shares and Shares that may be issued pursuant to the Warrants are sold. The Company will be responsible for all of its fees and expenses incurred in connection with registering the Shares.

In addition, pursuant to the terms of the Purchase Agreement, upon closing on February 17, 2017, the Issuer sold Warrants to purchase an aggregate of 2,810,338 Shares to the Investors for the price of \$0.125 per Warrant, including Warrants to purchase 75,314 Shares to Birchview Fund LLC. Warrants may be exercised at an exercise price of \$1.80 per Share. Each Warrant becomes exercisable on or after August 17, 2017. In addition, the terms of certain of the Warrants prohibit the holder of such Warrants from exercising the Warrants to the extent that the exercise would result in the holder beneficially owning more than 19.99% of the outstanding Shares. The Warrants expire on February 17, 2022, five years following the date of issuance or, if earlier, five business days after the Company delivers notice that the closing price per share of its Shares exceeded the Exercise Price for 20 consecutive trading days during the exercise period.

The description and summary of the Purchase Agreement and the Warrants set forth above in this Item 4 do not purport to be complete and are qualified in their entirety by reference to the full text of the Purchase Agreement and Form of Warrant, which are included as Exhibit 8 and Exhibit 9, respectively, to this Amendment No. 4 and are incorporated herein by reference.

Item 5. Interest in Securities of the Issuer

Item 5 of the Schedule 13D is hereby amended and supplemented as follows:

(a) As of the date hereof, Birchview may be deemed to beneficially own 3,269,913 Shares, representing approximately 5.8% of the total number of Shares outstanding. This amount includes: (i) 2,023,070 Shares held in the SMA; (ii) 754,863 Shares held for the account of Birchview Fund LLC; and (iii) 491,980 Shares obtainable upon exercise of Warrants held for the account of Birchview Fund LLC.

As of the date hereof, Mr. Strobeck may be deemed to beneficially own 3,300,913 Shares, representing approximately 5.8% of the total number of Shares outstanding. This amount includes: (i) the 3,269,913 Shares beneficially owned by Birchview; and (ii) an additional 31,000 Shares held in custodial accounts in the name of Mr. Strobeck's wife for the benefit of Mr. Strobeck's children.

(The percentages reported herein are based on a total of 56,567,597 Shares outstanding, which is the sum of: (i) the 52,328,492 Shares reported in the Purchase Agreement as outstanding as of December 31, 2016; (ii) the 3,747,125 Shares issued in connection with the closing of the private placement on February 17, 2017, as reported by the Company in the Current Report on Form 8-K filed by the Company on February 17, 2017; and (iii) the 491,980 Shares issuable upon exercise by the Reporting Persons of the Warrants, which have been added to the total Shares outstanding figure in accordance with Rule 13d-3(d)(1)(i) under the Act.)

(b) The Reporting Persons have shared power to vote or to direct the vote and to dispose or to direct the disposition of the 2,023,070 Shares held in the SMA, the 754,863 Shares held for the account of Birchview Fund LLC and the 491,980 Shares obtainable upon exercise of Warrants held for the account of Birchview Fund LLC. Mr. Strobeck has shared power to vote or to direct the vote and dispose or to direct the disposition of 31,000 additional Shares held in custodial accounts in the name of Mr. Strobeck's wife for the benefit of Mr. Strobeck's children.

(c) On February 16, 2017, the Birchview Fund LLC sold 40,000 Shares in the open market at a weighted average price of \$1.6889 per Share. The actual prices for these transactions range from \$1.65 to \$1.74, inclusive. The Reporting Persons further undertake to provide upon request by the U.S. Securities and Exchange Commission, the Issuer, or a security holder of the Issuer, full information regarding the number of Shares sold at each separate price within the ranges set forth in Item 5(c). In addition, upon closing of the private placement on February 17, 2017, and pursuant to the Purchase Agreement described in Item 4 herein, 100,419 Shares were acquired at a price of \$1.40 per Share and Warrants the purchase 75,314 Shares were acquired at a price of \$0.125 per Warrant, for the account of Birchview Fund LLC.

(d) See disclosure in Item 2(a) and Item 5(a) of this Amendment No. 4. Except as set forth herein, no person is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the Shares that may be deemed to be beneficially owned by the Reporting Persons.

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

Item 6 of the Schedule 13D is hereby amended and supplemented as follows:

The response set forth in Item 4 of this Amendment No. 4 is incorporated herein by reference.

Item 7. Material to be Filed as Exhibits.

Item 7 of the Schedule 13D is hereby amended and supplemented as follows:

Exhibit 8: Securities Purchase Agreement (incorporated by reference to Exhibit 99.1 to the Current Report on Form 8-K filed by the Issuer on February 17, 2017)

Exhibit 9: Form of Warrant (incorporated by reference to Exhibit A to the Securities Purchase Agreement filed as Exhibit 99.1 to the Current Report on Form 8-K filed by the Issuer on February 17, 2017)

Exhibit 10: Joint Filing Agreement

SIGNATURE

After reasonable inquiry and to the best of his knowledge and belief, the undersigned certifies that the information set forth in this statement is true, complete and correct.

Birchview Capital, LP

By: /s/ Matthew Strobeck

Name: Matthew Strobeck

Title: Chief Investment Officer

Matthew Strobeck

By: /s/ Matthew Strobeck

February 17, 2017

Attention: Intentional misstatements or omissions of fact constitute federal violations (see 18 U.S.C. 1001).

EXHIBIT 10**JOINT FILING AGREEMENT**

The undersigned hereby agree that the statement on Schedule 13D with respect to the Common Stock of Vermillion, Inc., dated as of February 17, 2017 is, and any amendments thereto (including amendments on Schedule 13G) signed by each of the undersigned shall be, filed on behalf of each of us pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities Exchange Act of 1934.

Birchview Capital, LPBy: /s/ Matthew Strobeck

Name: Matthew Strobeck

Title: Chief Investment Officer

Matthew StrobeckBy: /s/ Matthew StrobeckFebruary 17, 2017
