

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

**FORM 10-K/A
(Amendment No. 1)**

(Mark One)

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

For the fiscal year ended December 31, 2017

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. 001-36483

MIRAGEN THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

6200 Lookout Road, Boulder, CO
(Address of principal executive offices)

47-1187261
(I.R.S. Employer
Identification No.)

80301
(Zip Code)

Registrant's telephone number, including area code: (720) 643-5200

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

Title of each class
Common Stock, \$0.01 par value

Name of each exchange on which registered
The Nasdaq Capital Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes No

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer

Accelerated filer

Non-accelerated filer (do not check if a smaller reporting company)

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 shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of the voting stock held by non-affiliates of the registrant, based upon the closing sale price of the registrant's Common Stock on June 30, 2017 as reported on The Nasdaq Capital Market, was \$122.4 million. Shares of Common Stock held by each executive officer and director and by each person who owns 10% or more of the outstanding Common Stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of April 18, 2018, there were 30,192,373 shares of the registrant's Common Stock outstanding.

EXPLANATORY NOTE

This Amendment No. 1 on Form 10-K/A, or Amendment No. 1, amends the Annual Report on Form 10-K, or the Annual Report, of Miragen Therapeutics, Inc., or the Company, for the year ended December 31, 2017, as filed by the Company on March 15, 2018. This Amendment No. 1 hereby amends Part III, Item 11 of the Annual Report solely to add the information regarding director compensation included below. In addition, we are also including Exhibits 31.1, 31.2 and 32.1 required by the filing of this Amendment No. 1.

Except as otherwise stated herein, no other information contained in the Annual Report has been updated by this Amendment No. 1, and the Company has not updated the disclosures contained therein to reflect any events that occurred subsequent to the date of the Annual Report. Accordingly, this Amendment No. 1 should be read in conjunction with the Annual Report and the Company's filings made with the U.S. Securities and Exchange Commission subsequent to the filing of the Annual Report. The filing of this Amendment No. 1 is not an admission that the Annual Report, when originally filed, included any untrue statement of a material fact or omitted to state a material fact necessary to make a statement not misleading. Unless context requires otherwise, references in this Amendment No. 1 to "Miragen," "the Company," "we," "us" and "our" refer to Miragen Therapeutics, Inc.

PART III

ITEM 11. EXECUTIVE COMPENSATION

2017 Director Compensation

The table below sets forth the compensation of our non-employee directors for the fiscal year ended December 31, 2017.

Name ⁽¹⁾	Fees Earned or Paid in Cash (\$)	Stock Awards ⁽²⁾ (\$)	Option Awards ⁽²⁾ (\$)	Total (\$)
Bruce L. Booth, Ph.D.	9,014	—	163,518 ⁽³⁾⁽⁴⁾	172,532
Christopher J. Bowden, M.D.	15,781	—	190,001 ⁽⁵⁾	205,782
Jeffrey S. Hatfield	16,767	—	190,001 ⁽⁵⁾	206,768
Thomas E. Hughes, Ph.D.	27,587	9,180 ⁽⁶⁾	115,325 ⁽⁴⁾⁽⁷⁾	152,093
Kevin Koch, Ph.D.	44,849	—	105,168 ⁽⁴⁾	150,017
Joseph L. Turner	44,110	—	321,046 ⁽⁴⁾⁽⁸⁾	365,156
Kyle A. Lefkoff ⁽⁹⁾	20,842	—	—	20,842
John W. Creecy ⁽¹⁰⁾	20,842	—	—	20,842
Bennett S. LeBow ⁽¹¹⁾	17,500	—	—	17,500
David A. Gonyer ⁽¹²⁾	33,750	—	—	33,750
Douglas A. Schuling ⁽¹³⁾	36,250	—	—	36,250
Robin L. Smith, M.D. ⁽¹⁴⁾	35,000	—	—	35,000

- (1) Each of Dr. Marshall, our current president and chief executive officer, and Mr. Riccitelli, our prior president and chief executive officer, also served as a member of our board of directors in the fiscal year ended December 31, 2017. Each of Dr. Marshall's and Mr. Riccitelli's compensation for serving as our president and chief executive officer in 2017 is reported in the Summary Compensation Table and other compensation tables set forth under "Executive Compensation." Each of Dr. Marshall and Mr. Riccitelli did not receive any additional compensation for his service on our board of directors.
- (2) The values set forth in this column are based on the aggregate grant date fair value of the awards computed in accordance with FASB ASC Topic 718.
- (3) On March 24, 2017, this non-employee director was granted stock options to purchase 6,727 shares of common stock at an exercise price of \$12.00, which was equal to the closing price of our common stock on The Nasdaq Capital Market on the date of grant. The stock options vested in three quarterly installments beginning on April 1, 2017.
- (4) On June 28, 2017, these non-employee directors were each granted stock options to purchase 12,000 shares of common stock at an exercise price of \$12.06, which was equal to the closing price of our common stock on The Nasdaq Capital Market on the date of grant. The stock options vest in full on June 30, 2018.
- (5) On August 10, 2017, these non-employee directors were each granted stock options to purchase 24,000 shares of common stock at an exercise price of \$11.12, which was equal to the closing price of our common stock on The Nasdaq Capital Market on the date of grant. The stock options vest in 36 monthly installments beginning on August 10, 2017.
- (6) On March 24, 2017, this non-employee director was granted a restricted stock award of 765 shares of common stock with a zero exercise price. The common stock shares vested in three quarterly installments beginning on April 1, 2017.
- (7) On March 24, 2017, this non-employee director was granted stock options to purchase 1,171 shares of common stock at an exercise price of \$12.00, which was equal to the closing price of our common stock on The Nasdaq Capital Market on the date of grant. The stock options vested in three quarterly installments beginning on April 1, 2017.
- (8) On February 13, 2017, this non-employee director was granted stock options to purchase of 24,000 shares of common stock at an exercise price of \$12.30, which was equal to the closing price of our

common stock on The Nasdaq Capital Market on the date of grant. The stock options vest in 36 monthly installments beginning on February 13, 2017.

- (9) Mr. Lefkoff resigned from our board of directors on August 10, 2017.
- (10) Mr. Creecy resigned from our board of directors on August 10, 2017.
- (11) Mr. LeBow resigned from our board of directors on February 13, 2017 in connection with the Mergers.
- (12) Mr. Gonyer resigned from our board of directors on February 13, 2017 in connection with the Mergers.
- (13) Mr. Schuling resigned from our board of directors on February 13, 2017 in connection with the Mergers.
- (14) Dr. Smith resigned from our board of directors on February 13, 2017 in connection with the Mergers.

Arlene Morris is not included in the table above, because she did not become a member of our board of directors until January 2018.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

<u>Exhibit Number</u>	<u>Description of Exhibit</u>	<u>Incorporated by Reference</u>			<u>Filed Herewith</u>
		<u>Form</u>	<u>Filing Date</u>	<u>Number</u>	
31.1	<u>Certification of Principal Executive Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities and Exchange Act, as amended.</u>	10-K/A	04/20/2018	31.1	•
31.2	<u>Certification of Principal Financial Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities and Exchange Act, as amended.</u>	10-K/A	04/20/2018	31.2	•
32.1**	<u>Certification of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>	10-K/A	04/20/2018	32.1	•

** This certification is being furnished pursuant to 18 U.S.C. Section 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Registrant, whether made before or after the date hereof.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Amendment No. 1 to the Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized.

MIRAGEN THERAPEUTICS, INC.

Date: April 20, 2018

By: /s/ William S. Marshall
William S. Marshall, Ph.D.
Chief Executive Officer
(Principal Executive Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this Amendment No. 1 to the Annual Report has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ William S. Marshall</u> William S. Marshall, Ph.D.	Chief Executive Officer and Director (Principal Executive Officer)	April 20, 2018
<u>/s/ Jason A. Leverone</u> Jason A. Leverone	Chief Financial Officer, Treasurer and Secretary (Principal Financial Officer; Principal Accounting Officer)	April 20, 2018
<u>*</u> Bruce L. Booth, Ph.D.	Chairman of the Board	April 20, 2018
<u>*</u> Christopher Bowden, M.D.	Director	April 20, 2018
<u>*</u> Jeffrey S. Hatfield	Director	April 20, 2018
<u>*</u> Thomas E. Hughes, Ph.D.	Director	April 20, 2018
<u>*</u> Kevin Koch, Ph.D.	Director	April 20, 2018
<u>*</u> Joseph L. Turner	Director	April 20, 2018
<u>*</u> Arlene M. Morris	Director	April 20, 2018

*By: /s/ William S. Marshall
William S. Marshall, Ph.D.
Attorney-in-Fact

CERTIFICATION

I, William S. Marshall, Ph.D., certify that:

1. I have reviewed this Amendment No. 1 on Form 10-K/A, or this report, to the Annual Report on Form 10-K of Miragen Therapeutics, Inc., a Delaware corporation;
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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(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: April 20, 2018

By: /s/ William S. Marshall
William S. Marshall, Ph.D.
Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION

I, Jason A. Leverone, certify that:

1. I have reviewed this Amendment No. 1 on Form 10-K/A, or this report, to the Annual Report on Form 10-K of Miragen Therapeutics, Inc., a Delaware corporation;
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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(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: April 20, 2018

By: /s/ Jason A. Leverone

Jason A. Leverone
Chief Financial Officer
(Principal Financial Officer; Principal Accounting Officer)

SECTION 1350 CERTIFICATION

Each of the undersigned, William S. Marshall, Chief Executive Officer of Miragen Therapeutics, Inc., a Delaware corporation (the "Company"), and Jason A. Leverone, Chief Financial Officer of the Company, do hereby certify, pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of his knowledge (1) the Amendment No. 1 on Form 10-K/A to the Annual Report on Form 10-K of the Company for the annual period ended December 31, 2017, as filed with the Securities and Exchange Commission on the date hereof (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/ William S. Marshall

William S. Marshall, Ph.D.
Chief Executive Officer
(Principal Executive Officer)
Date: April 20, 2018

/s/ Jason A. Leverone

Jason A. Leverone
Chief Financial Officer
(Principal Financial Officer; Principal Accounting Officer)
Date: April 20, 2018

This certification accompanies and is being "furnished" with this Report, shall not be deemed "filed" by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to liability under that Section and shall not be deemed to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Report, irrespective of any general incorporation language contained in such filing. A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.