

Booth Bruce  
Form 4  
February 13, 2018

**FORM 4** UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
Booth Bruce

2. Issuer Name and Ticker or Trading Symbol  
MIRAGEN THERAPEUTICS, INC.  
[MGEN]

5. Relationship of Reporting Person(s) to Issuer  
  
(Check all applicable)

(Last) (First) (Middle)  
C/O MIRAGEN THERAPEUTICS, INC., 6200 LOOKOUT ROAD  
  
(Street)

3. Date of Earliest Transaction  
(Month/Day/Year)  
02/13/2018

Director  10% Owner  
 Officer (give title below)  Other (specify below)

BOULDER, CO 80301

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

(City) (State) (Zip)

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)			
			Code	V	Amount or Price					
Common Stock	02/13/2018		P		545,454 (1)	A	\$ 5.5	1,351,090	I	See Footnote (2)
Common Stock								3,142,580	I	See Footnote (3)

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474 (9-02)

number.

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Beneficially Owned Following Reported Transaction (Instr. 3 and 4)
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Booth Bruce C/O MIRAGEN THERAPEUTICS, INC. 6200 LOOKOUT ROAD BOULDER, CO 80301	X			

## Signatures

/s/ Bruce Booth                      02/13/2018  
 \*\*Signature of                      Date  
 Reporting Person

## Explanation of Responses:

- \* If the form is filed by more than one reporting person, see Instruction 4(b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) Represents shares purchased through the Issuer's follow-on public offering.  
 The shares are held by Atlas Venture Fund X, L.P. ("Atlas Venture X"). Atlas Venture Associates X, L.P. ("AVA X LP"), is the general partner of Atlas Venture X, and Atlas Venture Associates X, LLC ("AVA X LLC"), is the general partner of AVA X LP. Each of AVA X LP and AVA X LLC disclaims Section 16 beneficial ownership of the securities held by Atlas Venture X, except to the extent of its pecuniary interest therein, if any.
- (3) The shares are held by Atlas Venture Fund VII, L.P. ("Atlas Venture VII"). Atlas Venture Associates VII, L.P. ("AVA VII LP") is the general partner of Atlas Venture VII, and Atlas Venture Associates VII, Inc. ("AVA VII Inc.") is the general partner of AVA VII LP. Each of AVA VII LP and AVA VII Inc. disclaims Section 16 beneficial ownership of the securities held by Atlas Venture VII, except to the extent of its pecuniary interest therein, if any.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.