

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| OMB APPROVAL | |
|--|-----------|
| OMB Number: | 3235-0287 |
| Estimated average burden hours per response: | 0.5 |

| | | |
|--|---|---|
| 1. Name and Address of Reporting Person* <u>AFEYAN NOUBAR</u> (Last) (First) (Middle) <u>1 MEMORIAL DRIVE, 7TH FLOOR</u> (Street) <u>CAMBRIDGE MA 02142</u> (City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol <u>Seres Therapeutics, Inc. [MCRB]</u> | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below) |
| | 3. Date of Earliest Transaction (Month/Day/Year) <u>05/25/2016</u> | |
| | | 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person |

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 Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|--------|---|--|---|
| | | | Code | V | Amount | (A) or (D) | Price | | | |
| Common Stock, \$0.001 par value | 05/25/2016 | | S | | 320,562 | D | \$27.6 | 2,734,994 | I | See footnote ⁽¹⁾ |
| Common Stock, \$0.001 par value | 05/25/2016 | | S | | 80,141 | D | \$27.6 | 1,925,462 | I | See footnote ⁽²⁾ |
| Common Stock, \$0.001 par value | 05/25/2016 | | S | | 599,297 | D | \$27.6 | 0 | I | See footnote ⁽³⁾ |
| Common Stock, \$0.001 par value | 05/25/2016 | | J ⁽⁴⁾ | | 800,000 | D | \$0 | 8,022,420 | I | See footnote ⁽⁵⁾ |
| Common Stock, \$0.001 par value | 05/25/2016 | | J ⁽⁶⁾ | | 200,000 | D | \$0 | 1,925,462 | I | See footnote ⁽⁷⁾ |
| Common Stock, \$0.001 par value | 05/25/2016 | | J ⁽⁸⁾ | | 33,507 | A | \$0 | 33,514 | I | See footnote ⁽⁵⁾ |
| Common Stock, \$0.001 par value | 05/25/2016 | | J ⁽⁹⁾ | | 7 | A | \$0 | 33,514 | I | See footnote ⁽⁷⁾ |
| Common Stock, \$0.001 par value | 05/25/2016 | | J ⁽¹⁰⁾ | | 33,514 | D | \$0 | 0 | I | See footnote ⁽¹¹⁾ |

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 Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--|--|--------------------------------------|--|--------------------------------|---|--|--|-----|---|--|--|---|--|
| | | | | Code | V | | (A) | (D) | | | | | |

1. Name and Address of Reporting Person*
AFEYAN NOUBAR
 (Last) (First) (Middle)
1 MEMORIAL DRIVE, 7TH FLOOR
 (Street)
CAMBRIDGE MA 02142
 (City) (State) (Zip)

1. Name and Address of Reporting Person*
Flagship Ventures Fund 2007, L.P.

(Last) (First) (Middle)

1 MEMORIAL DRIVE, 7TH FLOOR

(Street)

CAMBRIDGE MA 02142

(City)

(State)

(Zip)

1. Name and Address of Reporting Person*

[Flagship Ventures Fund IV, L.P.](#)

(Last) (First) (Middle)

1 MEMORIAL DRIVE, 7TH FLOOR

(Street)

CAMBRIDGE MA 02142

(City)

(State)

(Zip)

1. Name and Address of Reporting Person*

[Flagship Ventures Fund IV-Rx, L.P.](#)

(Last) (First) (Middle)

1 MEMORIAL DRIVE, 7TH FLOOR

(Street)

CAMBRIDGE MA 02142

(City)

(State)

(Zip)

1. Name and Address of Reporting Person*

[Flagship VentureLabs IV, LLC](#)

(Last) (First) (Middle)

1 MEMORIAL DRIVE, 7TH FLOOR

(Street)

CAMBRIDGE MA 02142

(City)

(State)

(Zip)

1. Name and Address of Reporting Person*

[Flagship Ventures 2007 General Partner LLC](#)

(Last) (First) (Middle)

1 MEMORIAL DRIVE, 7TH FLOOR

(Street)

CAMBRIDGE MA 02142

(City)

(State)

(Zip)

1. Name and Address of Reporting Person*

[Flagship Ventures Fund IV General Partner LLC](#)

(Last) (First) (Middle)

1 MEMORIAL DRIVE, 7TH FLOOR

(Street)

CAMBRIDGE MA 02142

(City)

(State)

(Zip)

1. Name and Address of Reporting Person*

[KANIA EDWIN M JR](#)

(Last) (First) (Middle)

1 MEMORIAL DRIVE, 7TH FLOOR

| | | |
|----------------------|----|-------|
| (Street) | | |
| CAMBRIDGE | MA | 02142 |
| (City) (State) (Zip) | | |

Explanation of Responses:

1. Held by Flagship VentureLabs IV LLC ("Flagship VentureLabs"). Flagship Ventures Fund IV, L.P. ("Flagship Fund IV") is a member of Flagship VentureLabs and also serves as its manager. Flagship Ventures Fund IV General Partner LLC ("Flagship Fund IV GP") is the general partner of Flagship Fund IV. Noubar B. Afeyan, Ph.D. and Edwin M. Kania, Jr. are the managers of Flagship Fund IV GP. Each of these individuals and entities may be deemed to share voting and investment power with respect to all shares held by Flagship VentureLabs. Each of the filing persons disclaims beneficial ownership of such shares except to the extent of his or its pecuniary interest therein.
2. Held by Flagship Ventures Fund IV-Rx, L.P. ("Flagship IV-Rx"). Flagship Fund IV GP is the general partner of Flagship IV-Rx. Dr. Afeyan and Mr. Kania are the managers of Flagship Fund IV GP and each of these managers may be deemed to share voting and investment power with respect to all shares held by Flagship IV-Rx. Each of the filing persons disclaims beneficial ownership of the shares except to the extent of his or its pecuniary interest therein.
3. Held by Flagship Ventures Fund 2007, L.P. ("Flagship 2007"). Flagship Ventures 2007 General Partner LLC ("Flagship 2007 LLC") is the general partner of Flagship 2007. Dr. Afeyan and Mr. Kania are the managers of Flagship 2007 LLC and each of these managers may be deemed to share voting and investment power with respect to all shares held by Flagship 2007. Each of the filing persons disclaims beneficial ownership of the shares except to the extent of his or its pecuniary interest therein.
4. Distribution of shares in kind by Flagship Fund IV on a pro rata basis to its partners.
5. The shares are directly held by Flagship Fund IV. Flagship Fund IV GP is the general partner of Flagship Fund IV. Dr. Afeyan and Mr. Kania are the managers of Flagship Fund IV GP and each of these managers may be deemed to share voting and investment power with respect to all shares held by Flagship Fund IV. Each of the filing persons disclaims beneficial ownership of the shares except to the extent of his or its pecuniary interest therein.
6. Distribution of shares in kind by Flagship IV-Rx on a pro rata basis to its partners.
7. The shares are directly held by Flagship IV-Rx. Flagship Fund IV GP is the general partner of Flagship IV-Rx. Dr. Afeyan and Mr. Kania are the managers of Flagship Fund IV GP and each of these managers may be deemed to share voting and investment power with respect to all shares held by Flagship Fund IV-Rx. Each of the filing persons disclaims beneficial ownership of the shares except to the extent of his or its pecuniary interest therein.
8. Flagship Fund IV GP received shares distributed in kind by Flagship Fund IV on a pro rata basis to its partners.
9. Flagship Fund IV GP received shares distributed in kind by Flagship IV-Rx on a pro rata basis to its partners.
10. Distribution of shares in kind by Flagship Fund IV GP on a pro rata basis to its members.
11. The shares are directly held by Flagship Fund IV GP. As such, each of Dr. Afeyan and Mr. Kania exercises shared voting and investment power over the shares held by Flagship Fund IV GP. Each of the filing persons disclaims beneficial ownership of the shares except to the extent of his or its pecuniary interest therein.

Remarks:

[NOUBAR B. AFEYAN, Ph.D.](#), [05/27/2016](#)
[/s/ Noubar B. Afeyan](#)
[FLAGSHIP VENTURES](#)
[FUND 2007, L.P., By: Flagship](#)
[Ventures 2007 General Partner](#), [05/27/2016](#)
[LLC, By: /s/ Noubar Afeyan,](#)
[Name: Noubar B. Afeyan,](#)
[Title: Manager](#)
[FLAGSHIP VENTURES](#)
[FUND IV, L.P., By: Flagship](#)
[Ventures Fund IV General](#), [05/27/2016](#)
[Partner LLC, By: /s/ Noubar](#)
[Afeyan, Name: Noubar B.](#)
[Afeyan, Title: Manager](#)
[FLAGSHIP VENTURES](#)
[FUND IV-RX, L.P., By:](#)
[Flagship Ventures Fund IV](#), [05/27/2016](#)
[General Partner LLC, By: /s/](#)
[Noubar Afeyan, Name: Noubar](#)
[B. Afeyan, Title: Manager](#)
[FLAGSHIP VENTURELABS](#)
[IV LLC., By: Flagship](#)
[Ventures Fund IV General](#), [05/27/2016](#)
[Partner LLC, By: /s/ Noubar](#)
[Afeyan, Name: Noubar B.](#)
[Afeyan, Title: Manager](#)
[FLAGSHIP VENTURES 2007](#)
[GENERAL PARTNER LLC,](#)
[By: /s/ Noubar Afeyan, Name: 05/27/2016](#)
[Noubar B. Afeyan, Title:](#)
[Manager](#)
[FLAGSHIP](#)
[VENTURES FUND IV](#)
[GENERAL PARTNER LLC,](#)
[By: /s/ Noubar Afeyan, Name: 05/27/2016](#)
[Noubar B. Afeyan, Title:](#)
[Manager](#)
[EDWIN M. KANIA, JR., /s/](#), [05/27/2016](#)
[Edwin M. Kania, Jr.](#)
 ** Signature of Reporting Person Date

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

* 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).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.