

**INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES**

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

|  |   |   |   |
|--|---|---|---|
| 1. Name and Address of Reporting Person*<br><u>Atlas Venture Fund VII L P</u><br><br>(Last) (First) (Middle)<br>25 FIRST STREET, SUITE 303<br><br>(Street)<br>CAMBRIDGE MA 02141<br><br>(City) (State) (Zip) | 2. Date of Event Requiring Statement (Month/Day/Year)<br>06/18/2014 | 3. Issuer Name and Ticker or Trading Symbol<br><u>ZAFGEN, INC.</u> [ ZFGN ]   |   |
|  |   | 4. Relationship of Reporting Person(s) to Issuer (Check all applicable)<br><br>Director <input checked="" type="checkbox"/> 10% Owner<br>Officer (give title below) Other (specify below) | 5. If Amendment, Date of Original Filed (Month/Day/Year)<br><br>6. Individual or Joint/Group Filing (Check Applicable Line)<br>Form filed by One Reporting Person<br><input checked="" type="checkbox"/> Form filed by More than One Reporting Person |

**Table I - Non-Derivative Securities Beneficially Owned**

| 1. Title of Security (Instr. 4) | 2. Amount of Securities Beneficially Owned (Instr. 4) | 3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5) | 4. Nature of Indirect Beneficial Ownership (Instr. 5) |
|---------------------------------|---|--|---|
|---------------------------------|---|--|---|

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

| 1. Title of Derivative Security (Instr. 4) | 2. Date Exercisable and Expiration Date (Month/Day/Year) |                 | 3. Title and Amount of Securities Underlying Derivative Security (Instr. 4) |                            | 4. Conversion or Exercise Price of Derivative Security | 5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5) | 6. Nature of Indirect Beneficial Ownership (Instr. 5) |
|--|--|-----------------|---|----------------------------|--|--|---|
|  | Date Exercisable   | Expiration Date | Title   | Amount or Number of Shares |  |  |   |
| Series A Preferred Stock                   | (1)  | (1)             | Common Stock  | 759,236                    | (1)  | D <sup>(5)</sup>   |   |
| Series B Preferred Stock                   | (2)  | (2)             | Common Stock  | 2,810,709                  | (2)  | D <sup>(5)</sup>   |   |
| Series C Preferred Stock                   | (3)  | (3)             | Common Stock  | 1,315,859                  | (3)  | D <sup>(5)</sup>   |   |
| Series D Preferred Stock                   | (4)  | (4)             | Common Stock  | 746,926                    | (4)  | D <sup>(5)</sup>   |   |

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| 1. Name and Address of Reporting Person*<br><u>Atlas Venture Fund VII L P</u><br><br>(Last) (First) (Middle)<br>25 FIRST STREET, SUITE 303<br><br>(Street)<br>CAMBRIDGE MA 02141<br><br>(City) (State) (Zip) |  |  |
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| 1. Name and Address of Reporting Person*<br><u>Atlas Venture Associates VII, L.P.</u><br><br>(Last) (First) (Middle)<br>25 FIRST STREET, SUITE 303<br><br>(Street)<br>CAMBRIDGE MA 02141<br><br>(City) (State) (Zip) |  |  |
|--|--|--|

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|--|--|--|
| 1. Name and Address of Reporting Person*<br><u>Atlas Venture Associates VII, Inc.</u><br><br>(Last) (First) (Middle)<br>25 FIRST STREET, SUITE 303<br><br>(Street)<br>CAMBRIDGE MA 02141<br><br>(City) (State) (Zip) |  |  |
|--|--|--|

(City)

(State)

(Zip)

**Explanation of Responses:**

1. The Series A Preferred Stock is convertible into Common Stock on a 6.28-for-1 basis into the number of shares of Common Stock as shown in column 3 at any time at the holder's election, and automatically upon the closing of the Issuer's initial public offering, and has no expiration date.
2. The Series B Preferred Stock is convertible into Common Stock on a 6.28-for-1 basis into the number of shares of Common Stock as shown in column 3 at any time at the holder's election, and automatically upon the closing of the Issuer's initial public offering, and has no expiration date.
3. The Series C Preferred Stock is convertible into Common Stock on a 6.28-for-1 basis into the number of shares of Common Stock as shown in column 3 at any time at the holder's election, and automatically upon the closing of the Issuer's initial public offering, and has no expiration date.
4. The Series D Preferred Stock is convertible into Common Stock on a 6.28-for-1 basis into the number of shares of Common Stock as shown in column 3 at any time at the holder's election, and automatically upon the closing of the Issuer's initial public offering, and has no expiration date.
5. The general partner of Atlas Venture Fund VII, L.P. is Atlas Venture Associates VII, L.P. ("AVA VII LP"). The general partner of AVA VII LP is Atlas Venture Associates VII, Inc. ("AVA VII Inc."). AVA VII LP and AVA VII Inc. disclaim beneficial ownership of such shares, except to the extent of any pecuniary interest therein.

**Remarks:**

/s/ Peter Barrett, Vice President  
of Atlas Venture Associates  
VII, Inc., general partner of  
Atlas Venture Associates VII,  
L.P., general partner of Atlas  
Venture Fund VII, L.P.      06/18/2014

/s/ Peter Barrett, Vice President  
of Atlas Venture Associates  
VII, Inc., general partner of  
Atlas Venture Associates VII,  
L.P.      06/18/2014

/s/ Peter Barrett, Vice President  
of Atlas Venture Associates  
VII, Inc.      06/18/2014

\*\* 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 5 (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.**