

## 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

<b>1. Name and Address of Reporting Person*</b> <u>Hughes Thomas E.</u> <hr/> (Last) (First) (Middle) <u>C/O ZAFGEN, INC.,</u> <u>ONE BROADWAY, 8TH FLOOR</u> <hr/> (Street) <u>CAMBRIDGE MA 02142</u> <hr/> (City) (State) (Zip)	<b>2. Date of Event Requiring Statement (Month/Day/Year)</b> 06/18/2014	<b>3. Issuer Name and Ticker or Trading Symbol</b> <u>ZAFGEN, INC. [ ZFGN ]</u> <hr/> <b>4. Relationship of Reporting Person(s) to Issuer (Check all applicable)</b> <input checked="" type="checkbox"/> Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <p style="text-align: center;"><u>Chief Executive Officer</u></p>	<b>5. If Amendment, Date of Original Filed (Month/Day/Year)</b> <hr/> <b>6. Individual or Joint/Group Filing (Check Applicable Line)</b> <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person
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### 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)
<u>Common Stock</u>	35,253	D	

### 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				
<u>Stock Option (Right to Buy)</u>	(1)	12/15/2018	<u>Common Stock</u>	0.75	D	
<u>Stock Option (Right to Buy)</u>	(1)	03/18/2019	<u>Common Stock</u>	0.75	D	
<u>Stock Option (Right to Buy)</u>	(1)	03/10/2020	<u>Common Stock</u>	0.82	D	
<u>Stock Option (Right to Buy)</u>	(2)	06/12/2023	<u>Common Stock</u>	2.45	D	

**Explanation of Responses:**

1. Vested.
2. 25% of this option vested on December 19, 2013, and the remainder vests in equal monthly installments thereafter over 36 months.

**Remarks:**/s/ Thomas E. Hughes06/18/2014

\*\* 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.

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