

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

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 * BAKER BROS. ADVISORS LP	2. Date of Event Requiring Statement (MM/DD/YYYY) 8/27/2015	3. Issuer Name and Ticker or Trading Symbol Invitae Corp [NVTA]
(Last) (First) (Middle) 667 MADISON AVENUE, 21ST FLOOR	4. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner <input type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below)	
(Street) NEW YORK, NY 10065 (City) (State) (Zip)	5. If Amendment, Date Original Filed (MM/DD/YYYY)	6. Individual or Joint/Group Filing (Check Applicable Line) <input type="checkbox"/> Form filed by One Reporting Person <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)
Common Stock	665187	I	See Footnote (1) (4)
Common Stock	5816409	I	See Footnote (2) (4)
Common Stock	73371	I	See Footnote (3) (4)

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

1. Title of Derivate Security (Instr. 4)	2. Date Exercisable and Expiration Date (MM/DD/YYYY)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form of Derivative Security: 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			

Explanation of Responses:

- (1) As a result of Felix J. Baker's and Julian C. Baker's ownership interest in Baker Biotech Capital (GP), LLC, Felix J. Baker and Julian C. Baker may be deemed to have an indirect pecuniary interest in 665,187 shares of Common Stock of Invitae Corporation (the "Issuer") directly held by 667, L.P. ("667"), a limited partnership of which the sole general partner is Baker Biotech Capital, L.P., a limited partnership of which the sole general partner is Baker Biotech Capital (GP), LLC, due to Baker Biotech Capital, L.P.'s right to receive an allocation of a portion of the profits from 667.
- (2) As a result of Felix J. Baker's and Julian C. Baker's ownership interest in Baker Brothers Life Sciences Capital (GP), LLC, Felix J. Baker and Julian C. Baker may be deemed to have an indirect pecuniary interest in 5,816,409 shares of Common Stock of the Issuer directly held by Baker Brothers Life Sciences, L.P. ("Life Sciences"), a limited partnership of which the sole general partner is Baker Brothers

Life Sciences Capital, L.P., a limited partnership of which the sole general partner is Baker Brothers Life Sciences Capital (GP), LLC, due to Baker Brothers Life Sciences Capital, L.P.'s right to receive an allocation of a portion of the profits from Life Sciences.

- (3) As a result of Felix J. Baker's and Julian C. Baker's ownership interest in 14159 Capital (GP), LLC, Felix J. Baker and Julian C. Baker may be deemed to have an indirect pecuniary interest in 73,371 shares of Common Stock of the Issuer directly held by 14159, L.P. ("14159"), a limited partnership of which the sole general partner is 14159 Capital, L.P., a limited partnership of which the sole general partner is 14159 Capital (GP), LLC, due to 14159 Capital, L.P.'s right to receive an allocation of a portion of the profits from 14159.
- (4) Baker Bros. Advisors LP (the "Adviser") serves as the Investment Adviser to 667, Life Sciences and 14159 (together, the "Funds"). In connection with the services provided by the Adviser, the Adviser receives an asset-based management fee that does not confer any pecuniary interest in the securities held by the Funds. Baker Bros. Advisors (GP) LLC (the "Adviser GP") is the Adviser's sole general partner. Julian C. Baker and Felix J. Baker are principals of the Adviser GP. The Adviser has complete and unlimited discretion and authority with respect to the investment and voting power of the securities held by the Funds. The general partners of the Funds relinquished to the Adviser all discretion and authority with respect to the investment and voting power of the securities held by the Funds. Julian C. Baker, Felix J. Baker, the Adviser GP and the Adviser disclaim beneficial ownership of the securities held directly by the Funds except to the extent of their pecuniary interest therein, and this report shall not be deemed an admission that any of Julian C. Baker, Felix J. Baker, the Adviser GP or the Adviser is a beneficial owner of such securities for purposes of Section 16 or any other purpose.

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
BAKER BROS. ADVISORS LP 667 MADISON AVENUE, 21ST FLOOR NEW YORK, NY 10065		X		
Baker Bros. Advisors (GP) LLC 667 MADISON AVENUE 21ST FLOOR NEW YORK, NY 10065		X		
BAKER JULIAN 667 MADISON AVENUE, 21ST FLOOR NEW YORK, NY 10065		X		
BAKER FELIX 667 MADISON AVENUE, 21ST FLOOR NEW YORK, NY 10065		X		

Signatures

Name: Scott L. Lessing Title: President /s/ Scott L. Lessing

8/27/2015

** Signature of Reporting Person

Date

Name: Scott L. Lessing Title: President /s/ Scott L. Lessing

8/27/2015

** Signature of Reporting Person

Date

/s/ Julian C. Baker

8/27/2015

** Signature of Reporting Person

Date

/s/ Felix J. Baker

8/27/2015

** 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 control number.