

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

SCHEDULE 13D
Under the Securities Exchange Act of 1934

(Amendment No.)*

Invitae Corporation
(Name of Issuer)

Common Stock, Par Value \$0.0001 Per Share
(Title of Class of Securities)

46185L103
(CUSIP number)

Alexandra A. Toohey
Chief Financial Officer
Baker Bros. Advisors LP
667 Madison Avenue, 21st Floor
New York, NY 10065
(212) 339-5690

(Name, address and telephone number of person authorized to receive notices and communications)

Not Applicable
(Date of event which requires filing of this statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(e), 13d-1(f) or 13d-1(g), check the following box.

(Continued on the following pages)

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1.	NAMES OF REPORTING PERSONS Baker Bros. Advisors LP		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3.	SEC USE ONLY		
4.	SOURCE OF FUNDS* OO		
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) <input type="checkbox"/>		
6.	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7.	SOLE VOTING POWER 6,554,967
		8.	SHARED VOTING POWER: 0
		9.	SOLE DISPOSITIVE POWER: 6,554,967
		10.	SHARED DISPOSITIVE POWER: 0
11.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON: 6,554,967		
12.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>		
13.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 20.6%(1)		
14.	TYPE OF REPORTING PERSON (See Instructions) IA, PN		

(1) Based on 31,813,461 shares of Common Stock outstanding as of July 31, 2015, as reported in the Issuer's Form 10-Q filed with the SEC on August 10, 2015.



1.	NAMES OF REPORTING PERSONS Baker Bros. Advisors (GP) LLC		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3.	SEC USE ONLY		
4.	SOURCE OF FUNDS* OO		
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) <input type="checkbox"/>		
6.	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7.	SOLE VOTING POWER 6,554,967
		8.	SHARED VOTING POWER: 0
		9.	SOLE DISPOSITIVE POWER: 6,554,967
		10.	SHARED DISPOSITIVE POWER: 0
11.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON: 6,554,967		
12.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>		
13.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 20.6%(1)		
14.	TYPE OF REPORTING PERSON (See Instructions) HC, OO		

(1) Based on 31,813,461 shares of Common Stock outstanding as of July 31, 2015, as reported in the Issuer's Form 10-Q filed with the SEC on August 10, 2015.



1.	NAMES OF REPORTING PERSONS Julian C. Baker		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3.	SEC USE ONLY		
4.	SOURCE OF FUNDS* OO		
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) <input type="checkbox"/>		
6.	CITIZENSHIP OR PLACE OF ORGANIZATION United States		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7.	SOLE VOTING POWER: 6,554,967
		8.	SHARED VOTING POWER: 0
		9.	SOLE DISPOSITIVE POWER: 6,554,967
		10.	SHARED DISPOSITIVE POWER: 0
11.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON: 6,554,967		
12.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>		
13.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 20.6%(1)		
14.	TYPE OF REPORTING PERSON (See Instructions) IN, HC		

(1) Based on 31,813,461 shares of Common Stock outstanding as of July 31, 2015, as reported in the Issuer's Form 10-Q filed with the SEC on August 10, 2015.

1.	NAMES OF REPORTING PERSONS Felix J. Baker		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3.	SEC USE ONLY		
4.	SOURCE OF FUNDS* OO		
5.	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e) <input type="checkbox"/>		
6.	CITIZENSHIP OR PLACE OF ORGANIZATION United States		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		7.	SOLE VOTING POWER: 6,554,967
		8.	SHARED VOTING POWER: 0
		9.	SOLE DISPOSITIVE POWER: 6,554,967
		10.	SHARED DISPOSITIVE POWER: 0
11.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON: 6,554,967		
12.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>		
13.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 20.6%(1)		
14.	TYPE OF REPORTING PERSON (See Instructions) IN, HC		

(1) Based on 31,813,461 shares of Common Stock outstanding as of July 31, 2015, as reported in the Issuer's Form 10-Q filed with the SEC on August 10, 2015.



Schedule 13D

The class of equity security to which this statement on Schedule 13D relates is the common stock, par value \$0.0001 per share (the “Common Stock”) of Invitae Corporation, a corporation organized under the laws of the state of Delaware (the “Issuer”). The address of the principal executive offices of the Issuer is 458 Brannan Street, San Francisco, California 94107 . Information given in response to each item shall be deemed incorporated by reference in all other items, as applicable.

ITEM 2. Identity and Background.

(a) The Reporting Persons are:

1. Baker Bros. Advisors LP (the “Adviser”)
2. Baker Bros. Advisors (GP) LLC (the “Adviser GP”)
3. Felix J. Baker
4. Julian C. Baker

(b) The business address of each of the Reporting Persons is:

c/o Baker Bros. Advisors LP
667 Madison Avenue, 21st Floor
New York, NY 10065
(212) 339-5690

(c) The Adviser is an entity engaged in investment activities, and the Adviser GP is in the business of acting as its general partner and, through the Adviser, investment activities. The principal business of each of Julian C. Baker and Felix J. Baker is to serve as a managing member of the Adviser GP.

(d) and (e) During the past five years, none of the Reporting Persons nor any of the Funds (as defined below) has been (i) convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(f) The Adviser GP is a limited liability company organized under the laws of the State of Delaware. The Adviser is a limited partnership organized under the laws of the State of Delaware. The citizenship of each of Julian C. Baker and Felix J. Baker is the United States of America.

Item 3. Source and Amount of Funds or Other Consideration

The disclosure in Item 4 below is incorporated herein by reference. The securities of the Issuer purchased by the Funds (as defined below) reported herein were purchased with working capital both in open market transactions directly with a broker dealer and private transactions directly with the Issuer. The aggregate purchase price of the securities of the Issuer directly held by the Funds reported herein was approximately \$74,069,000.

Item 4. Purpose of the Transaction.

667, L.P. (“667”), Baker Brothers Life Sciences, L.P. (“Life Sciences”) and 14159, L.P. (“14159”, and together with Life Sciences and 667, the “Funds”) hold securities of the Issuer previously purchased in private transactions directly with the Issuer. Additionally, Life Sciences and 667 hold securities of the Issuer previously purchased in open market transactions directly with a broker dealer. All securities were purchased using the working capital of the Funds.

The Funds hold securities of the Issuer for investment purposes. The Reporting Persons or their affiliates may purchase additional securities or dispose of securities in varying amounts and at varying times depending upon the Reporting Persons' continuing assessments of pertinent factors, including the availability of shares of Common Stock or other securities for purchase at particular price levels, the business prospects of the Issuer, other business investment opportunities, economic conditions, stock market conditions, money market conditions, the attitudes and actions of the board of directors and management of the Issuer, the availability and nature of opportunities to dispose of shares of the Issuer and other plans and requirements of the particular entities. The Reporting Persons may discuss items of mutual interest with the Issuer, which could include items in subparagraphs (a) through (j) of Item 4 of Schedule 13D.

Depending upon their assessments of the above factors, the Reporting Persons or their affiliates may change their present intentions as stated above and they may assess whether to make suggestions to the management of the Issuer regarding financing, and whether to acquire additional securities of the Issuer, including shares of Common Stock (by means of open market purchases, privately negotiated purchases, or otherwise) or to dispose of some or all of the securities of the Issuer, including shares of Common Stock, under their control.

Except as otherwise disclosed herein, at the present time, the Reporting Persons do not have any plans or proposals with respect to any extraordinary corporate transaction involving the Issuer including, without limitation, those matters described in subparagraphs (a) through (j) of Item 4 of Schedule 13D.

Item 5. Interest in Securities of the Issuer.

(a) and (b) Items 7 through 11 and 13 of each of the cover pages of this Schedule 13D are incorporated herein by reference. Set forth below is the aggregate number and percentage of shares of Common Stock directly held, as of the date hereof, by each of the following based upon 31,813,461 shares of Common Stock outstanding as of July 31, 2015, as reported in the Issuer's Form 10-Q filed with the SEC on August 10, 2015. Such percentage figures were calculated in accordance with Rule 13d-3 under the Securities Exchange Act of 1934 (the "Exchange Act").

<u>Holder</u>	<u>Number of Shares</u>	<u>Percentage of Class Outstanding</u>
667, L.P.	665,187	2.1%
Baker Brothers Life Sciences, L.P.	5,816,409	18.3%
14159, L.P.	73,371	0.2%

The Adviser GP, Felix J. Baker and Julian C. Baker as principals of the Adviser GP, and the Adviser may be deemed to be beneficial owners of securities of the Issuer directly held by the Funds, and may be deemed to have the power to vote or direct the vote of and the power to dispose or direct the disposition of such securities.

The Reporting Persons disclaim beneficial ownership of the securities of the Issuer held by each of the Funds, and this Schedule 13D shall not be deemed an admission that the Reporting Persons are the beneficial owners of such securities for purposes of Section 13(d) or for any other purpose except to the extent that any such Reporting Persons actually exercises voting or dispositive power with respect to such securities.

Pursuant to management agreements as amended, among the Adviser, the Funds, and their respective general partners, the Adviser has complete and unlimited discretion and authority with respect to the Funds' investments and voting power over investments.

(c) None of the Reporting Persons or their affiliates has effected any transactions in securities of the Issuer during the past 60 days.

(d) Certain securities of the Issuer are held directly by 667, a limited partnership the sole general partner of which is Baker Biotech Capital, L.P., a limited partnership the sole general partner of which is Baker Biotech Capital (GP), LLC. Julian C. Baker and Felix J. Baker are the controlling members of Baker Biotech Capital (GP), LLC.

Certain securities of the Issuer are held directly by Life Sciences, a limited partnership the sole general partner of which is Baker Brothers Life Sciences Capital, L.P., a limited partnership the sole general partner of which is Baker Brothers Life Sciences Capital (GP), LLC. Julian C. Baker and Felix J. Baker are the controlling members of Baker Brothers Life Sciences Capital (GP), LLC.

Certain securities of the Issuer are held directly by 14159, a limited partnership the sole general partner of which is 14159 Capital, L.P., a limited partnership the sole general partner of which is 14159 Capital (GP), LLC. Julian C. Baker and Felix J. Baker are the controlling members of 14159 Capital (GP), LLC.

(e) Not applicable.

ITEM 6. Contracts, Arrangements, Understandings or Relationships With Respect to Securities of the Issuer.

None.

ITEM 7. Material to Be Filed as Exhibits

<u>Exhibit</u>	<u>Description</u>
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99.1	Agreement Regarding the Joint Filing of Schedule 13D by and among the Reporting Persons
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SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: August 27, 2015

BAKER BROS. ADVISORS LP

By: Baker Bros. Advisors (GP) LLC, its general partner

By: /s/ Scott L. Lessing

Name: Scott L. Lessing

Title: President

BAKER BROS. ADVISORS (GP) LLC

By: /s/ Scott L. Lessing

Name: Scott L. Lessing

Title: President

/s/ Julian C. Baker

Julian C. Baker

/s/ Felix J. Baker

Felix J. Baker

JOINT FILING AGREEMENT

Pursuant to Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, the undersigned hereby agree that only one statement containing the information required by Schedule 13D need be filed with respect to the ownership by each of the undersigned of the shares of Common Stock of Invitae Corporation.

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original.

EXECUTED as of this 27th day of August 2015

BAKER BROS. ADVISORS LP

By: Baker Bros. Advisors (GP) LLC, its general partner

By: /s/ Scott L. Lessing

Name: Scott L. Lessing

Title: President

BAKER BROS. ADVISORS (GP) LLC

By: /s/ Scott L. Lessing

Name: Scott L. Lessing

Title: President

/s/ Julian C. Baker

Julian C. Baker

/s/ Felix J. Baker

Felix J. Baker
