

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

SCHEDULE 13D
Under the Securities Exchange Act of 1934

(Amendment No. 1)*

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)

November 17, 2016

(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: 7,288,300	
	8.	SHARED VOTING POWER: 0	
	9.	SOLE DISPOSITIVE POWER: 7,288,300	
	10.	SHARED DISPOSITIVE POWER: 0	
11.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON: 7,288,300		
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) 17.8%(1)		
14.	TYPE OF REPORTING PERSON (See Instructions) IA, PN		

(1) Based on 40,879,256 shares of the Issuer’s common stock that will be outstanding following the offering described in the Issuer’s Prospectus Supplement filed with the Securities and Exchange Commission (the “SEC”) on November 17, 2016.

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: 7,288,300
		8.	SHARED VOTING POWER: 0
		9.	SOLE DISPOSITIVE POWER: 7,288,300
		10.	SHARED DISPOSITIVE POWER: 0
11.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON: 7,288,300		
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) 17.8%(1)		
14.	TYPE OF REPORTING PERSON (See Instructions) HC, OO		

(1) Based on 40,879,256 shares of the Issuer’s common stock that will be outstanding following the offering described in the Issuer’s Prospectus Supplement filed with SEC on November 17, 2016.

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: 7,288,300	
	8.	SHARED VOTING POWER: 0	
	9.	SOLE DISPOSITIVE POWER: 7,288,300	
	10.	SHARED DISPOSITIVE POWER: 0	
11.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON: 7,288,300		
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) 17.8%(1)		
14.	TYPE OF REPORTING PERSON (See Instructions) IN, HC		

(1) Based on 40,879,256 shares of the Issuer’s common stock that will be outstanding following the offering described in the Issuer’s Prospectus Supplement filed with SEC on November 17, 2016.

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: 7,288,300	
8.	SHARED VOTING POWER: 0	
9.	SOLE DISPOSITIVE POWER: 7,288,300	
10.	SHARED DISPOSITIVE POWER: 0	
11.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON: 7,288,300	
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) 17.8%(1)	
14.	TYPE OF REPORTING PERSON (See Instructions) IN, HC	

(1) Based on 40,879,256 shares of the Issuer’s common stock that will be outstanding following the offering described in the Issuer’s Prospectus Supplement filed with SEC on November 17, 2016

Amendment No. 1

This Amendment No. 1 to Schedule 13D amends and supplements the previously filed Schedules 13D filed by Baker Bros. Advisors LP (the “Adviser”), Baker Bros. Advisors (GP), LLC (the “Adviser GP”), Julian C. Baker and Felix J. Baker. Except as supplemented herein, such statements, as heretofore amended and supplemented, remain in full force and effect.

The Adviser GP is the sole general partner of the Adviser. Pursuant to the amended and restated management agreements, among the Adviser, Baker Brothers Life Sciences, L.P. (“Life Sciences”), 14159, L.P. (“14159”), and 667, L.P. (“667”, and together with Life Sciences and 14159, 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.

Item 3. Source and Amount of Funds or Other Consideration

Item 3 of Schedule 13D is supplemented and amended, as the case may be, as follows:

The disclosure regarding the purchases in Item 4 below is incorporated herein by reference.

Item 4. Purpose of the Transaction.

Item 4 of Schedule 13D is supplemented and amended, as the case may be, as follows:

On November 17, 2016, Invitae Corporation (“the Issuer”) entered into an underwriting agreement (the “Underwriting Agreement”) with J.P. Morgan Securities LLC (the “Underwriter”), related to a public offering (the “Offering”) of 7,333,333 shares of the Issuer’s common stock at a price to the public of \$6.00 per share. In addition, the Issuer granted the Underwriter an option exercisable for 30 days from the date of the Underwriting Agreement to purchase, at the public offering price less any underwriting discounts and commissions, up to an additional 1,099,999 shares of common stock to cover overallotments, if any. The Offering is expected to close on November 22, 2016.

Pursuant to the Offering, on November 17, 2016, 667 and Life Sciences purchased 69,074 and 664,259 shares of the Issuer’s common stock, respectively, at the offering price of \$6.00 per share, totaling 733,333 shares in the aggregate. Each of 667 and Life Sciences purchased the shares of the Issuer’s common stock with their working capital.

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 Amendment No. 1 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 40,879,256 shares of Common Stock that will be outstanding following the Offering as described in the Issuer's Prospectus Supplement filed with the Securities and Exchange Commission on November 17, 2016. 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.	734,261	1.8%
Baker Brothers Life Sciences, L.P.	6,480,668	15.8%
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 Amendment No. 1 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) The disclosure regarding the purchase of Common Stock of the Issuer in the Offering described in Item 4 is incorporated by reference herein. Except as described in this Schedule 13D, none of the Reporting Persons has effected any transaction in the 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.

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: November 18, 2016

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
