

Form 5500 Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Annual Return/Report of Employee Benefit Plan This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code). ► Complete all entries in accordance with the instructions to the Form 5500.	OMB Nos. 1210-0110 1210-0089 2016 This Form is Open to Public Inspection
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Part I	Annual Report Identification Information		
For calendar plan year 2016 or fiscal plan year beginning <u>01/01/2016</u> and ending <u>12/31/2016</u>			
A	This return/report is for:	☐ a multiemployer plan ☐ a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.) ☒ a single-employer plan ☐ a DFE (specify) _____	
B	This return/report is:	☐ the first return/report ☐ the final return/report ☒ an amended return/report ☐ a short plan year return/report (less than 12 months)	
C	If the plan is a collectively-bargained plan, check here. ☐		
D	Check box if filing under:	☒ Form 5558 ☐ automatic extension ☐ the DFVC program ☐ special extension (enter description)	

Part II	Basic Plan Information —enter all requested information		
1a	Name of plan <u>INVITAE 401(K) PLAN</u>	1b	Three-digit plan number (PN) ► <u>001</u>
		1c	Effective date of plan <u>01/01/2013</u>
2a	Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) <u>INVITAE</u> <u>458 BRANNON STREET</u> <u>SAN FRANCISCO, CA 94107</u>	2b	Employer Identification Number (EIN) <u>27-1701898</u>
		2c	Plan Sponsor's telephone number <u>775-453-1885</u>
		2d	Business code (see instructions) <u>621510</u>

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	01/23/2018	DENISE CURRY
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE
Preparer's name (including firm name, if applicable) and address (include room or suite number)			Preparer's telephone number

3a Plan administrator's name and address ☒ Same as Plan Sponsor	3b Administrator's EIN 3c Administrator's telephone number <div style="background-color: #cccccc; height: 40px; width: 100%;"></div>
4 If the name and/or EIN of the plan sponsor has changed since the last return/report filed for this plan, enter the name, EIN and the plan number from the last return/report: a Sponsor's name	4b EIN 4c PN
5 Total number of participants at the beginning of the plan year	5 289
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines 6a(1) , 6a(2) , 6b , 6c , and 6d). a(1) Total number of active participants at the beginning of the plan year..... a(2) Total number of active participants at the end of the plan year b Retired or separated participants receiving benefits..... c Other retired or separated participants entitled to future benefits d Subtotal. Add lines 6a(2) , 6b , and 6c e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits. f Total. Add lines 6d and 6e g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item) h Number of participants that terminated employment during the plan year with accrued benefits that were less than 100% vested	6a(1) 271 6a(2) 318 6b 1 6c 32 6d 351 6e 0 6f 351 6g 271 6h 48
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item).....	7
8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions: 2E 2F 2G 2J 2K 2R 2T 3D b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:	
9a Plan funding arrangement (check all that apply) (1) ☒ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor	9b Plan benefit arrangement (check all that apply) (1) ☒ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor
10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)	
a Pension Schedules (1) ☒ R (Retirement Plan Information) (2) ☐ MB (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary (3) ☐ SB (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary	b General Schedules (1) ☒ H (Financial Information) (2) ☐ I (Financial Information – Small Plan) (3) ☒ <u>1</u> A (Insurance Information) (4) ☒ C (Service Provider Information) (5) ☐ D (DFE/Participating Plan Information) (6) ☐ G (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2016 Form M-1 annual report. If the plan was not required to file the 2016 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code _____

SCHEDULE A (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <hr/> <small>Department of Labor Employee Benefits Security Administration</small> <hr/> <small>Pension Benefit Guaranty Corporation</small>	Insurance Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ► File as an attachment to Form 5500. ► Insurance companies are required to provide the information pursuant to ERISA section 103(a)(2).	OMB No. 1210-0110 <hr/> 2016 <hr/> This Form is Open to Public Inspection
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For calendar plan year 2016 or fiscal plan year beginning 01/01/2016 and ending 12/31/2016

A Name of plan INVITAE 401(K) PLAN	B Three-digit plan number (PN) ►	001
C Plan sponsor's name as shown on line 2a of Form 5500 INVITAE	D Employer Identification Number (EIN) 27-1701898	

Part I	Information Concerning Insurance Contract Coverage, Fees, and Commissions Provide information for each contract on a separate Schedule A. Individual contracts grouped as a unit in Parts II and III can be reported on a single Schedule A.
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1 Coverage Information:

(a) Name of insurance carrier
GREAT WEST LIFE AND ANNUITY

(b) EIN	(c) NAIC code	(d) Contract or identification number	(e) Approximate number of persons covered at end of policy or contract year	Policy or contract year	
				(f) From	(g) To
84-0467907	68322	336174-01	8	01/01/2016	12/31/2016

2 Insurance fee and commission information. Enter the total fees and total commissions paid. List in line 3 the agents, brokers, and other persons in descending order of the amount paid.

(a) Total amount of commissions paid	(b) Total amount of fees paid

3 Persons receiving commissions and fees. (Complete as many entries as needed to report all persons).

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
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(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
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(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	

(a) Name and address of the agent, broker, or other person to whom commissions or fees were paid

(b) Amount of sales and base commissions paid	Fees and other commissions paid		(e) Organization code
	(c) Amount	(d) Purpose	

Part II Investment and Annuity Contract Information

Where individual contracts are provided, the entire group of such individual contracts with each carrier may be treated as a unit for purposes of this report.

4 Current value of plan's interest under this contract in the general account at year end **4** 121701**5** Current value of plan's interest under this contract in separate accounts at year end..... **5** 0**6** Contracts With Allocated Funds:**a** State the basis of premium rates ▶**b** Premiums paid to carrier **6b****c** Premiums due but unpaid at the end of the year **6c****d** If the carrier, service, or other organization incurred any specific costs in connection with the acquisition or retention of the contract or policy, enter amount **6d**
Specify nature of costs ▶**e** Type of contract: (1) ☐ individual policies (2) ☐ group deferred annuity
(3) ☐ other (specify) ▶**f** If contract purchased, in whole or in part, to distribute benefits from a terminating plan, check here ▶ ☐**7** Contracts With Unallocated Funds (Do not include portions of these contracts maintained in separate accounts)**a** Type of contract: (1) ☐ deposit administration (2) ☐ immediate participation guarantee
(3) ☐ guaranteed investment (4) ☒ other ▶ GROUP ANNUITY CONTRACT**b** Balance at the end of the previous year **7b** 24806**c** Additions: (1) Contributions deposited during the year **7c(1)** 60317
(2) Dividends and credits..... **7c(2)** 0
(3) Interest credited during the year..... **7c(3)** 753
(4) Transferred from separate account **7c(4)** 94543
(5) Other (specify below) **7c(5)** 0

▶ LOAN PAYMENTS

(6) Total additions **7c(6)** 155613**d** Total of balance and additions (add lines **7b** and **7c(6)**). **7d** 180419**e** Deductions:(1) Disbursed from fund to pay benefits or purchase annuities during year **7e(1)** 0
(2) Administration charge made by carrier..... **7e(2)** 9
(3) Transferred to separate account **7e(3)** 58709
(4) Other (specify below) **7e(4)**(5) Total deductions **7e(5)** 58718**f** Balance at the end of the current year (subtract line **7e(5)** from line **7d**)..... **7f** 121701

Part III Welfare Benefit Contract Information

If more than one contract covers the same group of employees of the same employer(s) or members of the same employee organizations(s), the information may be combined for reporting purposes if such contracts are experience-rated as a unit. Where contracts cover individual employees, the entire group of such individual contracts with each carrier may be treated as a unit for purposes of this report.

8 Benefit and contract type (check all applicable boxes)

- a** ☐ Health (other than dental or vision)
b ☐ Dental
c ☐ Vision
d ☐ Life insurance
e ☐ Temporary disability (accident and sickness)
f ☐ Long-term disability
g ☐ Supplemental unemployment
h ☐ Prescription drug
i ☐ Stop loss (large deductible)
j ☐ HMO contract
k ☐ PPO contract
l ☐ Indemnity contract
m ☐ Other (specify) ▶

9 Experience-rated contracts:

a Premiums: (1) Amount received	9a(1)		
(2) Increase (decrease) in amount due but unpaid	9a(2)		
(3) Increase (decrease) in unearned premium reserve	9a(3)		
(4) Earned ((1) + (2) - (3))		9a(4)	0
b Benefit charges (1) Claims paid	9b(1)		
(2) Increase (decrease) in claim reserves	9b(2)		
(3) Incurred claims (add (1) and (2))		9b(3)	0
(4) Claims charged		9b(4)	
c Remainder of premium: (1) Retention charges (on an accrual basis) --			
(A) Commissions	9c(1)(A)		
(B) Administrative service or other fees	9c(1)(B)		
(C) Other specific acquisition costs	9c(1)(C)		
(D) Other expenses	9c(1)(D)		
(E) Taxes	9c(1)(E)		
(F) Charges for risks or other contingencies	9c(1)(F)		
(G) Other retention charges	9c(1)(G)		
(H) Total retention		9c(1)(H)	0
(2) Dividends or retroactive rate refunds. (These amounts were ☐ paid in cash, or ☐ credited.)		9c(2)	
d Status of policyholder reserves at end of year: (1) Amount held to provide benefits after retirement		9d(1)	
(2) Claim reserves		9d(2)	
(3) Other reserves		9d(3)	
e Dividends or retroactive rate refunds due. (Do not include amount entered in line 9c(2).)		9e	

10 Nonexperience-rated contracts:

a Total premiums or subscription charges paid to carrier	10a	
b If the carrier, service, or other organization incurred any specific costs in connection with the acquisition or retention of the contract or policy, other than reported in Part I, line 2 above, report amount. Specify nature of costs.	10b	

Part IV Provision of Information

11 Did the insurance company fail to provide any information necessary to complete Schedule A? ☐ Yes ☒ No

12 If the answer to line 11 is "Yes," specify the information not provided. ▶

<div>SCHEDULE C</div> <div>(Form 5500)</div> <div>Department of the Treasury Internal Revenue Service</div> <div>Department of Labor Employee Benefits Security Administration</div> <div>Pension Benefit Guaranty Corporation</div>	<div>Service Provider Information</div> <div>This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA).</div> <div>▶ File as an attachment to Form 5500.</div>	OMB No. 1210-0110
		2016
		This Form is Open to Public Inspection.

For calendar plan year 2016 or fiscal plan year beginning 01/01/2016 and ending 12/31/2016

<div>A</div> <div>Name of plan</div> <div>INVITAE 401(K) PLAN</div>	<div>B</div> <div>Three-digit plan number (PN)</div> <div>▶</div> <div>001</div>
<div>C</div> <div>Plan sponsor's name as shown on line 2a of Form 5500</div> <div>INVITAE</div>	<div>D</div> <div>Employer Identification Number (EIN)</div> <div>27-1701898</div>

Part I	Service Provider Information (see instructions)
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You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1 Information on Persons Receiving Only Eligible Indirect Compensation

- a

Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions).....

☐ Yes ☒ No
- b

If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation
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(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

GREAT-WEST LIFE & ANNUITY INSURANCE

8515 EAST ORCHARD ROAD
GREENWOOD VILLAGE, CO 80111

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
64	RECORDKEEPER	37165	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☒ No ☐

(a) Enter name and EIN or address (see instructions)

GLOBAL RETIREMENT PARTNERS

4340 REDWOOD HWY STE B60
SAN RAFAEL, CA 94903

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
27	INVESTMENT ADVISOR	13300	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

TD AMERITRADE, INC.

200 S. 108TH AVENUE
OMAHA, NE 68154

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
33	BROKERAGE SERVICES	150	Yes ☒ No ☐	Yes ☐ No ☒	0	Yes ☒ No ☐

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
TD AMERITRADE, INC.	33	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
OPEN BROKERAGE WINDOW 23-2311358	INCOME FROM MARKET OF APPROX \$2.50 PER QUALIFIED TRADE. 0-BPS ANNUALLY ON AVG DAILY ASSETS IN TDAM MONEY MARKET. 12(B)(1) MUTUAL FUND FEES OF 0-25 BPS ON BALANCES IN RESPECTIVE FUND FAMILIES.	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
TD AMERITRADE, INC.	33	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
FIDELITY SALEM STREET TRUST 04-2466841	RANGE FROM 0-100 BPS	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
TD AMERITRADE, INC.	33	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
VANGUARD CHESTER FUNDS 23-2311358	RANGE FROM 0-100 BPS	

Part II Service Providers Who Fail or Refuse to Provide Information

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
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(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)
(complete as many entries as needed)

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

SCHEDULE H (Form 5500) <small>Internal Revenue Service</small> <small>Department of Labor</small> <small>Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	Financial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500.	<small>OMB No. 1210-0110</small> 2016 This Form is Open to Public Inspection
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For calendar plan year 2016 or fiscal plan year beginning 01/01/2016 and ending 12/31/2016		
A Name of plan INVITAE 401(K) PLAN	B Three-digit plan number (PN) ►	001
C Plan sponsor's name as shown on line 2a of Form 5500 INVITAE	D Employer Identification Number (EIN) 27-1701898	

Part I	Asset and Liability Statement
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1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. **Round off amounts to the nearest dollar.** MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.

Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash	1a	0	0
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions.....	1b(1)	0	0
(2) Participant contributions	1b(2)	0	0
(3) Other.....	1b(3)	0	0
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit).....	1c(1)	0	0
(2) U.S. Government securities	1c(2)	0	0
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)	0	0
(B) All other.....	1c(3)(B)	0	0
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)	0	0
(B) Common.....	1c(4)(B)	0	0
(5) Partnership/joint venture interests	1c(5)	0	0
(6) Real estate (other than employer real property).....	1c(6)	0	0
(7) Loans (other than to participants)	1c(7)	0	0
(8) Participant loans.....	1c(8)	54703	48496
(9) Value of interest in common/collective trusts	1c(9)	0	0
(10) Value of interest in pooled separate accounts	1c(10)		
(11) Value of interest in master trust investment accounts	1c(11)	0	0
(12) Value of interest in 103-12 investment entities.....	1c(12)	0	0
(13) Value of interest in registered investment companies (e.g., mutual funds).....	1c(13)	3965387	6765407
(14) Value of funds held in insurance company general account (unallocated contracts).....	1c(14)	24806	121701
(15) Other	1c(15)	101970	218119

1d Employer-related investments:

		(a) Beginning of Year	(b) End of Year
(1) Employer securities	1d(1)	0	0
(2) Employer real property	1d(2)	0	0
e Buildings and other property used in plan operation	1e	0	0
f Total assets (add all amounts in lines 1a through 1e)	1f	4146866	7153723

Liabilities

g Benefit claims payable	1g	0	0
h Operating payables	1h		
i Acquisition indebtedness	1i	0	0
j Other liabilities	1j	0	0
k Total liabilities (add all amounts in lines 1g through 1j)	1k	0	0

Net Assets

l Net assets (subtract line 1k from line 1f)	1l	4146866	7153723
---	-----------	---------	---------

Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

Income

		(a) Amount	(b) Total
a Contributions:			
(1) Received or receivable in cash from: (A) Employers	2a(1)(A)	0	
(B) Participants	2a(1)(B)	2776571	
(C) Others (including rollovers)	2a(1)(C)	432149	
(2) Noncash contributions	2a(2)	0	
(3) Total contributions. Add lines 2a(1)(A) , (B) , (C) , and line 2a(2)	2a(3)		3208720
b Earnings on investments:			
(1) Interest:			
(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)	0	
(B) U.S. Government securities	2b(1)(B)	0	
(C) Corporate debt instruments	2b(1)(C)	0	
(D) Loans (other than to participants)	2b(1)(D)	0	
(E) Participant loans	2b(1)(E)	2181	
(F) Other	2b(1)(F)	753	
(G) Total interest. Add lines 2b(1)(A) through (F)	2b(1)(G)		2934
(2) Dividends: (A) Preferred stock	2b(2)(A)	0	
(B) Common stock	2b(2)(B)	0	
(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)	214717	
(D) Total dividends. Add lines 2b(2)(A) , (B) , and (C)	2b(2)(D)		214717
(3) Rents	2b(3)		0
(4) Net gain (loss) on sale of assets: (A) Aggregate proceeds	2b(4)(A)	0	
(B) Aggregate carrying amount (see instructions)	2b(4)(B)	0	
(C) Subtract line 2b(4)(B) from line 2b(4)(A) and enter result	2b(4)(C)		0
(5) Unrealized appreciation (depreciation) of assets: (A) Real estate	2b(5)(A)	0	
(B) Other	2b(5)(B)	0	
(C) Total unrealized appreciation of assets. Add lines 2b(5)(A) and (B)	2b(5)(C)		0

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		0
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		0
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		0
(9) Net investment gain (loss) from 103-12 investment entities	2b(9)		0
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds).....	2b(10)		238723
c Other income.....	2c		17590
d Total income. Add all income amounts in column (b) and enter total.....	2d		3682684

Expenses

e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	625362	
(2) To insurance carriers for the provision of benefits	2e(2)	0	
(3) Other	2e(3)	0	
(4) Total benefit payments. Add lines 2e(1) through (3).....	2e(4)		625362
f Corrective distributions (see instructions)	2f		0
g Certain deemed distributions of participant loans (see instructions)	2g		0
h Interest expense.....	2h		0
i Administrative expenses: (1) Professional fees.....	2i(1)	0	
(2) Contract administrator fees.....	2i(2)	50465	
(3) Investment advisory and management fees.....	2i(3)	0	
(4) Other	2i(4)	0	
(5) Total administrative expenses. Add lines 2i(1) through (4).....	2i(5)		50465
j Total expenses. Add all expense amounts in column (b) and enter total	2j		675827

Net Income and Reconciliation

k Net income (loss). Subtract line 2j from line 2d	2k		3006857
l Transfers of assets:			
(1) To this plan.....	2l(1)		
(2) From this plan.....	2l(2)		

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) ☐ Unqualified (2) ☐ Qualified (3) ☒ Disclaimer (4) ☐ Adverse

b Did the accountant perform a limited scope audit pursuant to 29 CFR 2520.103-8 and/or 103-12(d)?

☒ Yes ☐ No

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: MOSS ADAMS

(2) EIN: 91-0189318

d The opinion of an independent qualified public accountant is **not attached** because:

(1) ☐ This form is filed for a CCT, PSA, or MTIA. (2) ☐ It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l.

During the plan year:

a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.).....

b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)

	Yes	No	Amount
4a	X		863937
4b		X	

		Yes	No	Amount
c Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)	4c		X	
d Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)	4d		X	
e Was this plan covered by a fidelity bond?	4e	X		500000
f Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	4f		X	
g Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?	4g		X	
h Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?	4h		X	
i Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	4i	X		
j Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked, and see instructions for format requirements.)	4j		X	
k Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?	4k		X	
l Has the plan failed to provide any benefit when due under the plan?	4l		X	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	4m		X	
n If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.	4n		X	
o Defined Benefit Plan or Money Purchase Pension Plan Only: Were any distributions made during the plan year to an employee who attained age 62 and had not separated from service?	4o			

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year?
If "Yes," enter the amount of any plan assets that reverted to the employer this year. ☐ Yes ☒ No **Amount:**

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	5b(2) EIN(s)	5b(3) PN(s)

5c If the plan is a defined benefit plan, is it covered under the PBGC insurance program (See ERISA section 4021.)? ☐ Yes ☐ No ☐ Not determined
If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year (See instructions.)

Part V Trust Information

6a Name of trust	6b Trust's EIN
6c Name of trustee or custodian	6d Trustee's or custodian's telephone number

SCHEDULE R (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Retirement Plan Information This schedule is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500.	OMB No. 1210-0110 2016 This Form is Open to Public Inspection.
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For calendar plan year 2016 or fiscal plan year beginning 01/01/2016 and ending 12/31/2016

A Name of plan <u>INVITAE 401(K) PLAN</u>	B Three-digit plan number (PN) ▶ <u>001</u>
C Plan sponsor's name as shown on line 2a of Form 5500 <u>INVITAE</u>	D Employer Identification Number (EIN) <u>27-1701898</u>

Part I	Distributions
---------------	----------------------

All references to distributions relate only to payments of benefits during the plan year.

1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions	1	<u>0</u>
2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits): EIN(s): <u>20-3691708</u>		
Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.		
3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year	3	

Part II	Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)
----------------	---

4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)?	☐ Yes	☐ No	☐ N/A
If the plan is a defined benefit plan, go to line 8.			
5 If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. Date: Month _____ Day _____ Year _____ If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.			
6 a Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived)	6a		
b Enter the amount contributed by the employer to the plan for this plan year	6b		
c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount)	6c		
If you completed line 6c, skip lines 8 and 9.			
7 Will the minimum funding amount reported on line 6c be met by the funding deadline?	☐ Yes	☐ No	☐ N/A
8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change?	☐ Yes	☐ No	☐ N/A

Part III	Amendments
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9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box.....	☐ Increase	☐ Decrease	☐ Both	☐ No
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Part IV	ESOPs (see instructions). If this is not a plan described under Section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.
----------------	---

10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan?	☐ Yes	☐ No
11 a Does the ESOP hold any preferred stock?	☐ Yes	☐ No
b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.)	☐ Yes	☐ No
12 Does the ESOP hold any stock that is not readily tradable on an established securities market?	☐ Yes	☐ No

For Paperwork Reduction Act Notice, see the Instructions for Form 5500.

Schedule R (Form 5500) 2016
v. 160205

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that contributed more than 5% of total contributions to the plan during the plan year (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

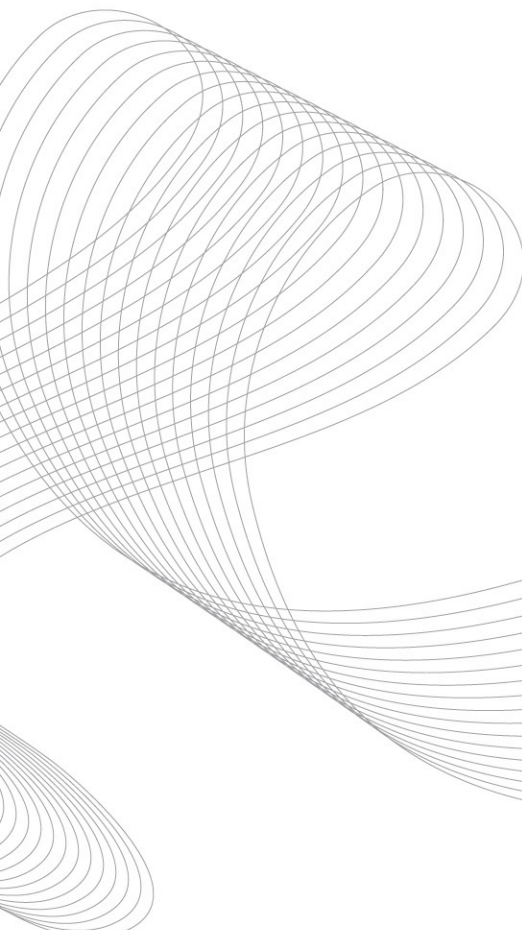
14	Enter the number of participants on whose behalf no contributions were made by an employer as an employer of the participant for:		
	a The current year	14a	
	b The plan year immediately preceding the current plan year	14b	
	c The second preceding plan year	14c	
15	Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:		
	a The corresponding number for the plan year immediately preceding the current plan year	15a	
	b The corresponding number for the second preceding plan year	15b	
16	Information with respect to any employers who withdrew from the plan during the preceding plan year:		
	a Enter the number of employers who withdrew during the preceding plan year	16a	
	b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers	16b	
17	If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment. ☐		

Part VI	Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans
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18	If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment	☐
19	If the total number of participants is 1,000 or more, complete lines (a) through (c)	
	a Enter the percentage of plan assets held as: Stock: _____% Investment-Grade Debt: _____% High-Yield Debt: _____% Real Estate: _____% Other: _____%	
	b Provide the average duration of the combined investment-grade and high-yield debt: ☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☐ 12-15 years ☐ 15-18 years ☐ 18-21 years ☐ 21 years or more	
	c What duration measure was used to calculate line 19(b)? ☐ Effective duration ☐ Macaulay duration ☐ Modified duration ☐ Other (specify): _____	

Part VII	IRS Compliance Questions
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20a Is the plan a 401(k) plan? If "No," skip b	☐ Yes ☐ No
20b How did the plan satisfy the nondiscrimination requirements for employee deferrals under section 401(k)(3) for the plan year? Check all that apply:	☐ Design-based safe harbor ☐ "Prior year" ADP test ☐ "Current year" ADP test ☐ N/A
21a What testing method was used to satisfy the coverage requirements under section 410(b) for the plan year? Check all that apply:	☐ Ratio percentage test ☐ Average benefit test ☐ N/A
21b Did the plan satisfy the coverage and nondiscrimination requirements of sections 410(b) and 401(a)(4) for the plan year by combining this plan with any other plan under the permissive aggregation rules?	☐ Yes ☐ No
22a If the plan is a master and prototype plan (M&P) or volume submitter plan that received a favorable IRS opinion letter or advisory letter, enter the date of the letter / / and the serial number .	
22b If the plan is an individually-designed plan that received a favorable determination letter from the IRS, enter the date of the most recent determination letter / / .	



Report of Independent Auditors and
Financial Statements with
Supplemental Schedules

Invitae 401(k) Plan

December 31, 2016 and 2015

MOSS ADAMS LLP

Certified Public Accountants | Business Consultants

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REPORT OF INDEPENDENT AUDITORS

To the Invitae 401(k) Plan Committee
Invitae 401(k) Plan

Report on the Financial Statements

We were engaged to audit the accompanying financial statements of the Invitae 401(k) Plan (the Plan), which comprise the statements of net assets available for benefits as of December 31, 2016 and 2015, and the related statement of changes in net assets available for benefits for the year ended December 31, 2016, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on conducting the audits in accordance with auditing standards generally accepted in the United States of America. Because of the matter described in the Basis for Disclaimer of Opinion paragraph, however, we were not able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion.

Basis for Disclaimer of Opinion

As permitted by 29 CFR 2520.103-8 of the Department of Labor's (DOL's) Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 (ERISA), the plan administrator instructed us not to perform, and we did not perform, any auditing procedures with respect to the information summarized in Note 6, which was certified by Great-West Life & Annuity Insurance Company and Great-West Trust Company, LLC, the custodians of the Plan, except for comparing such information with the related information included in the financial statements. We have been informed by the plan administrator that the custodians hold the Plan's investment assets and execute investment transactions. The plan administrator has obtained a certification from the custodians as of December 31, 2016 and 2015, and for the year ended December 31, 2016, that the information provided to the plan administrator by the custodians is complete and accurate.

Disclaimer of Opinion

Because of the significance of the matter described in the Basis for Disclaimer of Opinion paragraph, we have not been able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion. Accordingly, we do not express an opinion on these financial statements.

Other Matter – Supplemental Schedules

The Schedule H, line 4(a) – Schedule of Delinquent Participant Contributions for the year ended December 31, 2016 and the Schedule H, line 4(i) – Schedule of Assets (Held at End of Year) as of December 31, 2016, required by the DOL's Rules and Regulations for Reporting and Disclosure under ERISA and presented for the purpose of additional analysis and not a required part of the financial statements. Because of the significance of the matter described in the Basis for Disclaimer of Opinion paragraph, we do not express an opinion on these supplemental schedules.

Report on Form and Content in Compliance with DOL Rules and Regulations

The form and content of the information included in the financial statements and supplemental schedules, other than that derived from the information certified by the custodians, have been audited by us in accordance with auditing standards generally accepted in the United States of America and, in our opinion, are presented in compliance with the DOL's Rules and Regulations for Reporting and Disclosure under ERISA.

Moss Adams LLP

Campbell, California
September 1, 2017

FINANCIAL STATEMENTS

INVITAE 401(k) PLAN
STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS
December 31, 2016 and 2015

	2016	2015
Assets:		
Investments, at fair value:		
Mutual funds	\$ 6,765,407	\$ 3,965,387
Self-directed brokerage accounts	218,119	91,528
	6,983,526	4,056,915
Group annuity contract, at contract value	121,701	24,806
Total investments	7,105,227	4,081,721
Notes receivable from participants	48,496	54,703
Other assets	-	10,442
Net assets available for benefits	<u>\$ 7,153,723</u>	<u>\$ 4,146,866</u>

See accompanying notes.

INVITAE 401(k) PLAN
STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
Year Ended December 31, 2016

	<u>2016</u>
Additions to net assets attributed to:	
Investment and other income:	
Dividends and interest	\$ 235,241
Net realized and unrealized	
appreciation in fair value of investments	<u>238,723</u>
	<u>473,964</u>
Contributions:	
Participants'	2,776,571
Rollovers	<u>432,149</u>
Total additions	<u>3,682,684</u>
Deductions from net assets attributed to:	
Withdrawals and distributions	625,362
Administrative expenses	<u>50,465</u>
Total deductions	<u>675,827</u>
Net increase in net assets	3,006,857
Net assets available for benefits:	
Beginning of year	<u>4,146,866</u>
End of year	<u><u>\$ 7,153,723</u></u>

INVITAE 401(k) PLAN

NOTES TO FINANCIAL STATEMENTS

NOTE 1 – THE PLAN AND ITS SIGNIFICANT ACCOUNTING POLICIES

General – The following description of the Invitae 401(k) Plan (the Plan) provides only general information. Participants should refer to the Plan document for a more complete description of the Plan's provisions.

The Plan is a defined contribution plan that was established on January 1, 2013, by Invitae (the Company) to provide benefits to eligible employees, as defined in the Plan document. The Plan is currently designed to be qualified under the applicable requirements of the Internal Revenue Code (the Code) and the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

Administration – The Company has appointed the Invitae 401(k) Plan Committee (the Committee) to manage the operation and administration of the Plan. The Company has contracted with Great-West Life & Annuity Insurance Company and Great-West Trust Company, LLC (collectively Great-West), to act as the custodians and an affiliate of Great-West to act as third-party administrator to process and maintain the records of participant data. Substantially all expenses incurred for administering the Plan are paid by the Company.

Estimates – The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Basis of accounting – The financial statements of the Plan are prepared on the accrual method of accounting in accordance with accounting principles generally accepted in the United States of America.

Investment valuation and income recognition – The investments are reported at fair value and contract value. The Plan's custodians, Great-West, certify the contract value of the group annuity contract and the fair market value of all the Plan's investments. If available, quoted market prices are used to value investments.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 2 for discussion of fair value measurements.

Contract value is the relevant measurement for assets invested in fully benefit-responsive investment contracts because contract value is the amount participants normally would receive if they were to initiate permitted transactions under the terms of the Plan.

Purchases and sales of securities are recorded on a trade date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net appreciation includes the Plan's gains and losses on investments bought or sold as well as held during the year.

Notes receivable from participants – Notes receivable from participants (notes receivable) are measured at their unpaid principal balance plus any accrued but unpaid interest. Delinquent notes receivable are reclassified as distributions upon the occurrence of a distributable event based upon the terms of the Plan document.

Income taxes – The Plan has adopted a prototype plan that has received an opinion letter from the Internal Revenue Service. The plan administrator believes that the Plan is operated in accordance with, and qualifies under, the applicable requirements of the Code and related state statutes, and that the trust, which forms a part of the Plan, is exempt from federal income and state franchise taxes.

In accordance with guidance on accounting for uncertainty in income taxes (ASC 740-10), management evaluated the Plan's tax positions and does not believe the Plan has any uncertain tax positions that require disclosure or adjustment to the financial statements. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress.

Subsequent events – The Plan has evaluated subsequent events through September 1, 2017, which is the date the financial statements were available to be issued.

NOTE 2 – FAIR VALUE MEASUREMENTS

The fair value measurements standard establishes a framework for measuring fair value. That framework provides a hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

The three levels of the fair value hierarchy under the standard are described below:

Level 1 – Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.

Level 2 – Inputs to the valuation methodology include:

- Quoted market prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in inactive markets;
- Inputs other than quoted prices that are observable for the asset or liability; and
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 – Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

Following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in the methodologies used at December 31, 2016 and 2015.

Mutual funds: Valued at the daily closing price as reported by the fund. Mutual funds held by the Plan are open-end mutual funds that are registered with the U.S. Securities and Exchange Commission. These funds are required to publish their daily net asset value (NAV) and to transact at that price. The mutual funds held by the Plan are deemed to be actively traded.

Self-directed brokerage accounts: Accounts primarily consist of mutual funds and common stocks that are valued on the basis of readily determinable market prices

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation method is appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following tables set forth by level, within the fair value hierarchy, the Plan's assets at fair value as of December 31, 2016 and 2015:

	2016			
	Level 1	Level 2	Level 3	Total
Mutual Funds	\$ 6,765,407	\$ -	\$ -	\$ 6,765,407
Self-Directed brokerage accounts	218,119	-	-	218,119
Investments at fair value	<u>\$ 6,983,526</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 6,983,526</u>

INVITAE 401(k) PLAN
NOTES TO FINANCIAL STATEMENTS

	2015			
	Level 1	Level 2	Level 3	Total
Mutual Funds	\$ 3,965,387	\$ -	\$ -	\$ 3,965,387
Self-Directed brokerage accounts	91,528	-	-	91,528
Investments at fair value	<u>\$ 4,056,915</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 4,056,915</u>

NOTE 3 – GUARANTEED INVESTMENT CONTRACTS

The Plan has entered into a group annuity contract (which is considered a fully benefit-responsive investment contract) with Great-West, the Key Guaranteed Portfolio Fund. Great-West maintains the contributions in a general account. The account is credited with earnings on the underlying investments and charged for participant withdrawals and administrative expenses. The guaranteed investment contract issuer is contractually obligated to repay the principal and a specified interest rate that is guaranteed to the Plan.

Because the guaranteed investment contract is fully benefit-responsive, contract value is the relevant measurement attribute for that portion of the net assets available for benefits attributable to the guaranteed investment contract. Contract value, as reported to the Plan by Great-West, represents contributions made under the contract, plus earnings, less participant withdrawals and administrative expenses. Participants may ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value.

There are no reserves against contract value for credit risk of the contract issuer or otherwise.

The Key Guaranteed Portfolio Fund is a general account product. The methodology for calculating the interest crediting rate is based on the earnings of the underlying assets in the entire medium-long term new portfolio compared to the minimum interest crediting rate, as stated in the contract, and prevailing market conditions. The interest crediting rate is reset quarterly.

Participants are allowed to direct exchanges into or out of this fund at contract value without restriction. In the event the contract with the Plan is terminated, the issuer may enforce up to a 12-month waiting period to liquidate the investment at contract value. The terms of the contract do not detail any events that would limit the Plan's ability to transact at contract value.

NOTE 4 – RELATED PARTY TRANSACTIONS

Certain Plan investments are managed by Great-West, the custodians of the Plan. Any purchases and sales of these funds are exchanged at contract value. Such transactions, while considered party-in-interest transactions under ERISA regulations, are permitted under the provisions of the Plan and are specifically exempt from the prohibition of party-in-interest transactions under ERISA.

NOTE 5 – PARTICIPATION AND BENEFITS

Participant contributions – Participants may elect to have the Company contribute their eligible pre-tax or after-tax compensation (as Roth contributions) to the Plan up to the amount allowable under the Plan document and current income tax regulations. Participants who have the Company contribute a portion of their compensation to the Plan agree to accept an equivalent reduction in taxable compensation. Contributions withheld are invested in accordance with the participant's direction.

Participants are also allowed to make rollover contributions of amounts received from other tax-qualified employer-sponsored retirement plans. Such contributions are deposited in the appropriate investment funds in accordance with the participant's direction and the Plan's provisions.

Employer contributions – The Company is allowed to make contributions to the Plan in the form of discretionary matching contributions, as defined in the Plan and as approved by the Board of Directors. No employer contributions have been made for the year ended December 31, 2016.

Vesting – Participants are immediately vested in their contributions. Participants are fully vested in any discretionary employer’s matching allocated to their account after six years of credited service.

Participant accounts – Each participant’s account is credited with the participant’s contribution, Plan earnings or losses, and an allocation of the Company’s contribution, if any.

Payment of benefits – Upon termination, the participants, or beneficiaries may elect to leave their account balance in the Plan, or receive their total benefits in a lump sum or installments amount equal to the value of the participant’s vested interest in their account.

Notes receivable from participants – The Plan allows participants to borrow not less than \$1,000 and up to the lesser of \$50,000 or 50% of their vested account balance. The notes receivable are secured by the participant’s vested balance. Such notes receivable bear interest at the available market financing rates and must be repaid to the Plan within a five-year period, unless the proceeds are used for the purchase of a principal residence in which case the maximum repayment period may be longer. The specific terms and conditions of such notes receivable are established by the Committee. Outstanding notes receivable at December 31, 2016, carry interest rates ranging from 4.25% to 4.5%.

NOTE 6 – CERTIFIED INFORMATION

The Plan administrator has elected the method of compliance permitted by 29 CFR 2520.103-8 of the Department of Labor’s Rules and Regulations for Reporting and Disclosure under ERISA. Accordingly, Great-West, the custodians of the Plan, have certified to the completeness and accuracy of:

- Investments and notes receivable reflected on the accompanying statements of net assets available for benefits as of December 31, 2016 and 2015.
- Net appreciation in fair value of investments, dividends and interest, and interest income from notes receivable reflected on the accompanying statement of changes in net assets available for benefits for the year ended December 31, 2016.
- Investments reflected on the schedule of assets (held at end of year).

NOTE 7 – NONEXEMPT TRANSACTIONS

Certain contributions of approximately \$386,000 and \$478,000 in 2015 and 2014, respectively, were not timely deposited with the Plan custodian. As a consequence of the delay in the deposit of such contributions, these contributions are considered prohibited transactions under ERISA. The Company and Plan Administrator have deposited the contributions with the Plan custodian and have taken the appropriate corrective action related to these contributions.

NOTE 8 – PLAN TERMINATION OR MODIFICATION

The Company intends to continue the Plan indefinitely for the benefit of its participants; however, it reserves the right to terminate or modify the Plan at any time by resolution of its Board of Directors and subject to the provisions of ERISA. In the event the Plan is terminated in the future, participants would become fully vested in their accounts.

SUPPLEMENTAL SCHEDULES
REQUIRED BY THE DEPARTMENT OF LABOR

INVITAE 401(k) PLAN
SCHEDULE H, LINE 4(a) - SCHEDULE OF DELINQUENT PARTICIPANT CONTRIBUTIONS
Year Ended December 31, 2016

Plan Sponsor: Invitae
Employer Identification Number: 27-1701898
Plan Number: 001
Schedule H, Line 4(a)

	Participant contributions transferred late to Plan	Totals that constitute nonexempt prohibited transactions			Total fully corrected under VFCP and PTE 2002-51
		Contributions not corrected	Contributions corrected outside VFCP	Contributions pending correction in VFCP	
2015	\$ 385,550	\$ -	\$ 385,550	\$ -	\$ -
2014	\$ 478,387	\$ -	\$ 478,387	\$ -	\$ -

INVITAE 401(k) PLAN
SCHEDULE H, LINE 4(i) – SCHEDULE OF ASSETS (HELD AT END OF YEAR)
December 31, 2016

Plan Sponsor: Invitae
Employer Identification Number: 27-1701898
Plan Number: 001
Schedule H, Line 4(i)

(a)	(b)	(c)	(e)
	Identity of issue, borrower, lessor, or similar party	Description of investment including maturity date, rate of interest, collateral, par, or maturity value	Current value
	American Century Mid Cap Value Institutional Fund	Mutual Funds	\$ 239,308
	American Century One Choice 2020 Institutional Fund	Mutual Funds	290,454
	American Century One Choice 2025 Institutional Fund	Mutual Funds	664,949
	American Century One Choice 2035 Institutional Fund	Mutual Funds	1,250,364
	American Century One Choice 2045 Institutional Fund	Mutual Funds	1,685,122
	American Century One Choice 2055 Institutional Fund	Mutual Funds	476,907
	American Century Short Duration Institutional Fund	Mutual Funds	172,256
	Blackrock Long Duration Bond Institutional Fund	Mutual Funds	46,407
	MFS International Diversification R4 Fund	Mutual Funds	69,440
	Oppenheimer International Growth Y Fund	Mutual Funds	187,391
	PIMCO Total Return Institutional Fund	Mutual Funds	138,381
	T. Rowe Price Blue Chip Growth Fund	Mutual Funds	268,905
	Vanguard 500 index Admiral Fund	Mutual Funds	670,374
	Vanguard Equity Income Fund	Mutual Funds	271,185
	Vanguard REIT Index Administration Fund	Mutual Funds	161,924
	Vanguard Small Capital Index Administration Fund	Mutual Funds	172,040
	Personal Choice Retirement Accounts	Self Directed Brokerage Account	218,119
*	Key Guaranteed Portfolio Fund	Insurance Company General Account	121,701
*	Participant Loans	Interest rates ranging from 4.25% to 4.5%	48,496
			\$ 7,153,723

* Indicates party-in-interest.

Name of Plan: Invitae 401(k) Plan

Plan year (beginning/ending):▶ 01/01/2016 - 12/31/2016 Plan number:▶ 001

[illegible]

INVESTMENT OPTION	MATURITY DATE	INTEREST RATE	COST OF ASSETS	CURRENT VALUE
IARBSX			295,855.14	290,454.45
IARWFX			684,744.61	664,948.86
IARLIX			1,278,678.30	1,250,364.25
IАОOIX			1,744,882.72	1,685,121.99
IARENX			475,174.76	476,907.31
IMDITX			70,012.19	69,439.64
IOIGYX			193,830.99	187,391.21
IVGSLX			157,301.78	161,924.33
IVSMAX			156,479.05	172,039.99
IАVUAX			223,219.59	239,307.58
ITRBCX			262,497.96	268,904.73
IVFIAX			623,566.79	670,374.40
IVEIPX			255,175.85	271,184.57
IACSUX			172,856.99	172,255.48
IBLDIX			45,519.35	46,407.34
IPTRRX			143,257.64	138,380.74
ISDBTDА			185,824.51	185,824.51
ISDBTDR			32,294.52	32,294.52
IKGPF		1.100	120,945.86	121,608.81
			7,122,118.60	7,105,134.71
PARTICIPANT LOANS	VARIOUS	4.250-4.500	48,495.61	48,495.61
FORFEITURES			89.31	92.32

Attachment to Form 5500, Schedule H, Part 4, Item I
EIN # 27-1701898

LEGEND			
INVESTMENT OPTION:			
IARBSX	American Century One Choice 2020 Instl	IARWFX	American Century One Choice 2025 Instl
IARLIX	American Century One Choice 2035 Instl	IАОOIX	American Century One Choice 2045 Instl
IARENX	American Century One Choice 2055 Instl	IMDITX	MFS International Diversification R4
IOIGYX	Oppenheimer International Growth Y	IVGSLX	Vanguard REIT Index Adm
IVSMAX	Vanguard Small Cap Index Adm	IАVUAX	American Century Mid Cap Value Inst
ITRBCX	T. Rowe Price Blue Chip Growth	IVFIAX	Vanguard 500 Index Admiral
IVEIPX	Vanguard Equity Income Fund	IACSUX	American Century Short Duration Instl
IBLDIX	BlackRock Managed Income Inst	IPTRRX	PIMCO Total Return Instl
ISDBTDА	TD Ameritrade SDB	ISDBTDR	TD Ameritrade SDB Roth
IKGPF	Key Guaranteed Portfolio Fund		

COST OF ASSETS: The original cost of the assets in each investment option as of the last day of the plan year
CURRENT VALUE: The value of all assets in each investment option as of the last day of the plan year