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

2017

This Form is Open to Public Inspection

Part I Annual Report Identification Information

For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

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.)
- [X] a single-employer plan
- [ ] a DFE (specify) ____

B This return/report is:
- [ ] the first return/report
- [ ] the final return/report
- [X] 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:
- [X] Form 5558
- [ ] automatic extension
- [ ] the DFVC program
- [ ] special extension (enter description)

Part II Basic Plan Information—enter all requested information

1a Name of plan
INVITAE 401(K) PLAN

1b Three-digit plan number (PN) ▶ 001

1c Effective date of plan 01/01/2013

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)

INVITAE

1400 16TH STREET
SAN FRANCISCO, CA 94103

2b Employer Identification Number (EIN)
27-1701898

2c Plan Sponsor's telephone number
408-504-6172

2d Business code (see instructions)
621510

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.	12/10/2018	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

3a Plan administrator's name and address [X] Same as Plan Sponsor

3b Administrator's EIN

3c Administrator's telephone number

4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report:
a Sponsor's name
c Plan Name

4b EIN

4d PN

5 Total number of participants at the beginning of the plan year	**5**	368
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	**6a(1)**	337
a(2) Total number of active participants at the end of the plan year	**6a(2)**	443
b Retired or separated participants receiving benefits	**6b**	0
c Other retired or separated participants entitled to future benefits	**6c**	53
d Subtotal. Add lines **6a(2)**, **6b**, and **6c**	**6d**	496
e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.	**6e**	0
f Total. Add lines **6d** and **6e**.	**6f**	496
g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	**6g**	379
h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	**6h**	64
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 2T 3D 2R

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)	[X]	Insurance
(2)	[ ]	Code section 412(e)(3) insurance contracts
(3)	[X]	Trust
(4)	[ ]	General assets of the sponsor

9b Plan benefit arrangement (check all that apply)

(1)	[X]	Insurance
(2)	[ ]	Code section 412(e)(3) insurance contracts
(3)	[X]	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)	[X]	**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)	[X]		**H** (Financial Information)
(2)	[ ]		**I** (Financial Information – Small Plan)
(3)	[X]	1	**A** (Insurance Information)
(4)	[X]		**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 2017 Form M-1 annual report. If the plan was not required to file the 2017 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)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

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

2017

This Form is Open to Public Inspection

For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

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.

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	11	01/01/2017	12/31/2017

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	

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(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	

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(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	292362
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	121701
c	Additions: (1) Contributions deposited during the year	7c(1)	70681		
	(2) Dividends and credits	7c(2)	0		
	(3) Interest credited during the year	7c(3)	2449		
	(4) Transferred from separate account	7c(4)	129116		
	(5) Other (specify below)	7c(5)	2196		
	▶ LOAN PAYMENTS				
	(6) Total additions			7c(6)	204442
d	Total of balance and additions (add lines **7b** and **7c(6)**).			7d	326143
e	Deductions:				
	(1) Disbursed from fund to pay benefits or purchase annuities during year	7e(1)	22683		
	(2) Administration charge made by carrier	7e(2)	15		
	(3) Transferred to separate account	7e(3)	11083		
	(4) Other (specify below)	7e(4)			
	▶				
	(5) Total deductions			7e(5)	33781
f	Balance at the end of the current year (subtract line **7e(5)** from line **7d**)			7f	292362

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.			**10b**	

Specify nature of costs.

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. ▶

SCHEDULE C (Form 5500)	Service Provider Information	OMB No. 1210-0110
Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	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.**	**2017** **This Form is Open to Public Inspection.**

For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

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 Service Provider Information (see instructions)

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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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	61138	Yes [X] No [ ]	Yes [X] No [ ]	0	Yes [X] No [ ]

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

GLOBAL RETIREMENT PARTNERS LLC

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	22158	Yes [ ] No [X]	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	110	Yes [X] No [ ]	Yes [ ] No [X]	0	Yes [X] 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)

EMPOWER RETIREMENT ADVISORY SERVICE

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?
28	INVESTMENT MGMT	43	Yes [ ] No [X]	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
(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.	

(a) Enter service provider name as it appears on line 2	**(b)** Service Codes (see instructions)	**(c)** Enter amount of indirect compensation
(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.	

(a) Enter service provider name as it appears on line 2	**(b)** Service Codes (see instructions)	**(c)** Enter amount of indirect compensation
(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.	

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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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)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

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.**

OMB No. 1210-0110

2017

This Form is Open to Public Inspection

For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

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

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)	48496	222192
(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)	6765407	11153080
(14) Value of funds held in insurance company general account (unallocated contracts)	1c(14)	121701	292362
(15) Other	1c(15)	218119	311946

			(a) Beginning of Year	(b) End of Year
1d	Employer-related investments:			
	(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	7153723	11979580
	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 through1j)	1k	0	0
	Net Assets			
l	Net assets (subtract line 1k from line 1f)	1l	7153723	11979580

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)	3513380	
	(C) Others (including rollovers)	2a(1)(C)	903581	
	(2) Noncash contributions	2a(2)	0	
	(3) Total contributions. Add lines **2a(1)(A), (B), (C),** and line **2a(2)**	2a(3)		4416961
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)	4116	
	(F) Other	2b(1)(F)	2449	
	(G) Total interest. Add lines **2b(1)(A)** through **(F)**	2b(1)(G)		6565
	(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)	339636	
	(D) Total dividends. Add lines **2b(2)(A)**, **(B)**, and **(C)**	2b(2)(D)		339636
	(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)		1046800
c Other income	2c		67752
d Total income. Add all **income** amounts in column (b) and enter total	2d		5877714
Expenses			
e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	968409	
(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)		968409
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)	83448	
(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)		83448
j Total expenses. Add all **expense** amounts in column (b) and enter total	2j		1051857
Net Income and Reconciliation			
k Net income (loss). Subtract line **2j** from line **2d**	2k		4825857
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)** [X] Disclaimer **(4)** [ ] Adverse

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

		Yes	No	Amount
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.)	4a		X	
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.)	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		1000000
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	

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

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.)

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

2017

This Form is Open to Public Inspection.

For calendar plan year 2017 or fiscal plan year beginning 01/01/2017 and ending 12/31/2017

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 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** 0

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): 20-3691708

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

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**

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**

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): _____

---

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

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):

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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 Invitae 401(k) Plan (the Plan), which comprise the statements of net assets available for benefits as of December 31, 2017 and 2016, and the related statement of changes in net assets available for benefits for the year ended December 31, 2017, 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, 2017 and 2016, and for the year ended December 31, 2017, 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 Schedule

The Schedule H, Line 4(i) – Schedule of Assets (Held at End of Year) as of December 31, 2017, is required by the DOL's Rules and Regulations for Reporting and Disclosure under ERISA and is presented for the purpose of additional analysis and is 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 this supplemental schedule.

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 schedule, 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
October 11, 2018

Report of Independent Auditors and Financial Statements with Supplemental Schedule

Invitae 401(k) Plan

December 31, 2017 and 2016

MOSSADAMS

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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 Invitae 401(k) Plan (the Plan), which comprise the statements of net assets available for benefits as of December 31, 2017 and 2016, and the related statement of changes in net assets available for benefits for the year ended December 31, 2017, 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, 2017 and 2016, and for the year ended December 31, 2017, 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 Schedule

The Schedule H, Line 4(i) – Schedule of Assets (Held at End of Year) as of December 31, 2017, is required by the DOL's Rules and Regulations for Reporting and Disclosure under ERISA and is presented for the purpose of additional analysis and is 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 this supplemental schedule.

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 schedule, 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
October 11, 2018

Financial Statements

Invitae 401(k) Plan
Statements of Net Assets Available for Benefits
December 31, 2017 and 2016

	2017	2016
Assets:		
Investments, at fair value:		
Mutual funds	$ 11,153,080	$ 6,765,407
Self-directed brokerage accounts	311,946	218,119
	11,465,026	6,983,526
Group annuity contract, at contract value	292,362	121,701
Total investments	11,757,388	7,105,227
Receivables:		
Notes receivable from participants	222,192	48,496
Total receivables	222,192	48,496
Net assets available for benefits	$ 11,979,580	$ 7,153,723

See accompanying notes.

Invitae 401(k) Plan
Statement of Changes in Net Assets Available for Benefits
Year Ended December 31, 2017

Additions to net assets attributed to:		
Investment and other income:		
Dividends and interest	$	346,200
Net realized and unrealized appreciation in fair value of investments		1,092,285
		1,438,485
Contributions:		
Participants'		3,513,380
Rollovers		903,581
Total additions		5,855,446
Deductions from net assets attributed to:		
Withdrawals and distributions		968,409
Administrative expenses		61,180
Total deductions		1,029,589
Net increase in net assets		4,825,857
Net assets available for benefits:		
Beginning of year		7,153,723
End of year	$	11,979,580

See accompanying notes.

NOTE 1 – THE PLAN AND ITS SIGNIFICANT ACCOUNTING POLICIES

General – The following description of 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 Corporation (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 (Great-West Insurance) 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 other 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. No allowance for credit losses has been recorded as of December 31, 2017 and 2016.

Payment of benefits – Benefits are recorded when paid.

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 October 11, 2018, 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) and the lowest priority to unobservable inputs (Level 3).

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, 2017 and 2016.

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 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, 2017 and 2016:

	2017			
	Level 1	**Level 2**	**Level 3**	**Total**
Mutual Funds	$ 11,153,080	$ -	$ -	$ 11,153,080
Self-Directed brokerage	311,946	-	-	311,946
Investments at fair value	$ 11,465,026	$ -	$ -	$ 11,465,026

	2016			
	Level 1	**Level 2**	**Level 3**	**Total**
Mutual Funds	$ 6,765,407	$ -	$ -	$ 6,765,407
Self-Directed brokerage	218,119	-	-	218,119
Investments at fair value	$ 6,983,526	$ -	$ -	$ 6,983,526

NOTE 3 – GROUP ANNUITY CONTRACT

The Plan has entered into a group annuity contract (which is considered a fully benefit-responsive investment contract) with Great-West Insurance and the Key Guaranteed Portfolio Fund. Great-West Insurance 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. Great-West Insurance 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 Insurance, 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, Great-West Insurance 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 and taxed 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, 2017.

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. Allocation of the Company's contribution is based on participant contributions or eligible employee compensation, as defined in the Plan.

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, 2017, carry interest rates ranging from 4.25% to 5.25%.

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, 2017 and 2016.
- 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, 2017.
- Investments reflected on the schedule of assets (held at end of year).

NOTE 7 – 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.

NOTE 8 – SUBSEQUENT EVENTS

In August and November 2017, the Company acquired Good Start Genetics, Inc., and CombiMatrix Corporation, respectively. As a result of the acquisitions, the Company merged the CombiMatrix Molecular Diagnostic, Inc. 401(k) Plan and the Good Start Genomics, Inc. 401(k) Retirement Plan into the Plan, with assets of approximately $3,226,000 and $5,043,000, respectively, transferred during March 2018.

Supplemental Schedule
Required by the Department of Labor

Invitae 401(k) Plan
Schedule H, Line 4(i) – Schedule of Assets (Held at End of Year)
December 31, 2017

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

(a)	(b) Identity of issue, borrower, lessor, or similar party	(c) Description of investment including maturity date, rate of interest, collateral, par, or maturity value	(e) Current value
	American Century Mid Cap Value Institutional Fund	Mutual Funds	$ 346,601
	American Century One Choice 2020 Institutional Fund	Mutual Funds	378,246
	American Century One Choice 2025 Institutional Fund	Mutual Funds	781,746
	American Century One Choice 2035 Institutional Fund	Mutual Funds	2,158,361
	American Century One Choice 2045 Institutional Fund	Mutual Funds	3,039,160
	American Century One Choice 2055 Institutional Fund	Mutual Funds	1,186,604
	American Century Short Duration Institutional Fund	Mutual Funds	208,050
	Blackrock Managed Income Institutional Fund	Mutual Funds	73,872
	MFS International Diversification R4 Fund	Mutual Funds	159,079
	Oppenheimer International Growth Y Fund	Mutual Funds	272,984
	PIMCO Total Return Institutional Fund	Mutual Funds	145,367
	T. Rowe Price Blue Chip Growth Fund	Mutual Funds	425,265
	Vanguard 500 index Admiral Fund	Mutual Funds	1,044,517
	Vanguard Equity Income Fund	Mutual Funds	401,117
	Vanguard REIT Index Administration Fund	Mutual Funds	211,211
	Vanguard Small Capital Index Administration Fund	Mutual Funds	320,900
	Personal Choice Retirement Accounts	Self Directed Brokerage Account	311,946
*	Key Guaranteed Portfolio Fund	Group Annuity Contract	292,362
*	Participant Loans	Interest rates ranging from 4.25% to 5.25%	222,192
			$ 11,979,580

* Indicates party-in-interest.

MOSSADAMS

SCHEDULE OF ASSETS (HELD AT END OF YEAR)

Invitae 401(k) Plan
01-JAN-17 to 31-DEC-17

INVESTMENT OPTION	MATURITY DATE	INTEREST RATE	COST OF ASSETS	CURRENT VALUE
1ARBSX			359,803.52	378,246.05
1ARWFX			747,294.77	781,745.93
1ARLIX			2,033,368.22	2,158,361.18
1AOOIX			2,837,166.01	3,039,160.21
1ARENX			1,081,436.31	1,186,603.65
1MDITX			135,739.16	159,078.70
1OIGYX			230,970.21	272,984.07
1VGSLX			205,553.18	211,210.62
1VSMAX			275,406.30	320,899.86
1AVUAX			331,214.65	346,600.80
1TRBCX			333,238.38	425,265.06
1VFIAX			866,190.88	1,044,517.48
1VEIPX			344,952.88	401,117.09
1ACSUX			209,624.07	208,049.71
1BLDIX			72,937.39	73,872.44
1PTTRX			145,905.12	145,367.56
1SDBTDA			254,931.00	254,931.00
1SDBTDR			57,015.36	57,015.36
1KGPF		1.100	289,242.05	292,268.66
			10,811,989.46	**11,757,295.43**
PARTICIPANT LOANS	VARIOUS	4.250-5.250	222,048.11	222,191.75
FORFEITURES			89.31	93.34

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

LEGEND

INVESTMENT OPTION:

1ARBSX	American Century One Choice 2020 I	1ARWFX	American Century One Choice 2025 I
1ARLIX	American Century One Choice 2035 I	1AOOIX	American Century One Choice 2045 I
1ARENX	American Century One Choice 2055 I	1MDITX	MFS International Diversification R4
1OIGYX	Oppenheimer International Growth Y	1VGSLX	Vanguard REIT Index Adm
1VSMAX	Vanguard Small Cap Index Adm	1AVUAX	American Century Mid Cap Value I
1TRBCX	T. Rowe Price Blue Chip Growth	1VFIAX	Vanguard 500 Index Admiral
1VEIPX	Vanguard Equity Income Fund	1ACSUX	American Century Short Duration R5
1BLDIX	BlackRock Managed Income Inst	1PTTRX	PIMCO Total Return Instl
1SDBTDA	TD Ameritrade SDB	1SDBTDR	TD Ameritrade SDB Roth
1KGPF	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