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Form 990  Department of the Treasury Internal Revenue Service	Return of Organization Exempt From Income Tax Under section 501(c), 527, or 4947(a)(1) of the Internal Revenue Code (except black lung benefit trust or private foundation) ▶ The organization may have to use a copy of this return to satisfy state reporting requirements	OMB No 1545-0047
		2010
		Open to Public Inspection

A For the 2010 calendar year, or tax year beginning 12-01-2010 and ending 11-30-2011		
B Check if applicable ☐ Address change ☐ Name change ☐ Initial return ☐ Terminated ☐ Amended return ☐ Application pending	C Name of organization THE TRANSLATIONAL GENOMICS RESEARCH INSTITUTE	D Employer identification number 75-3065445
	Doing Business As	E Telephone number (602) 343-8423
	Number and street (or P O box if mail is not delivered to street address) 445 N 5TH STREET SUITE 600	Room/suite
	G Gross receipts \$ 60,822,104	
	City or town, state or country, and ZIP + 4 PHOENIX, AZ 85004	
	F Name and address of principal officer JEFFREY TRENT PHD 445 N FIFTH STREET 600 PHOENIX,AZ 85004	H(a) Is this a group return for affiliates? ☐ Yes ☒ No H(b) Are all affiliates included? ☐ Yes ☐ No If "No," attach a list (see instructions) H(c) Group exemption number ▶
I Tax-exempt status ☒ 501(c)(3) ☐ 501(c) () ◀(Insert no) ☐ 4947(a)(1) or ☐ 527		
J Website: ▶ WWW.TGEN.ORG		
K Form of organization ☒ Corporation ☐ Trust ☐ Association ☐ Other ▶		L Year of formation 2002
M State of legal domicile AZ		

Part I	Summary
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Activities & Governance	1 Briefly describe the organization's mission or most significant activities SEE SCHEDULE O
	2 Check this box ☐ if the organization discontinued its operations or disposed of more than 25% of its net assets
	3 Number of voting members of the governing body (Part VI, line 1a)
	4 Number of independent voting members of the governing body (Part VI, line 1b)
	5 Total number of individuals employed in calendar year 2010 (Part V, line 2a)
6 Total number of volunteers (estimate if necessary)	
7a Total unrelated business revenue from Part VIII, column (C), line 12 . . .	
7b Net unrelated business taxable income from Form 990-T, line 34 . . .	
Revenue	8 Contributions and grants (Part VIII, line 1h)
	9 Program service revenue (Part VIII, line 2g)
	10 Investment income (Part VIII, column (A), lines 3, 4, and 7d)
	11 Other revenue (Part VIII, column (A), lines 5, 6d, 8c, 9c, 10c, and 11e)
	12 Total revenue—add lines 8 through 11 (must equal Part VIII, column (A), line 12)
	13 Grants and similar amounts paid (Part IX, column (A), lines 1–3) . . .
Expenses	14 Benefits paid to or for members (Part IX, column (A), line 4)
	15 Salaries, other compensation, employee benefits (Part IX, column (A), lines 5–10)
	16a Professional fundraising fees (Part IX, column (A), line 11e)
	b Total fundraising expenses (Part IX, column (D), line 25) ▶ ⁰
	17 Other expenses (Part IX, column (A), lines 11a–11d, 11f–24f)
	18 Total expenses Add lines 13–17 (must equal Part IX, column (A), line 25)
	19 Revenue less expenses Subtract line 18 from line 12
	Net Assets or Fund Balances
21 Total liabilities (Part X, line 26)	
22 Net assets or fund balances Subtract line 21 from line 20	

Part II	Signature Block
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Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. Declaration of preparer (other than officer) is based on all information of which preparer has any knowledge.

Sign Here	Signature of officer		2012-10-15		
			Date		
Paid Preparer Use Only	Print/Type preparer's name	Preparer's signature	Date	Check if self-employed ☐	PTIN
	Firm's name ▶ ERNST & YOUNG US LLP				Firm's EIN ▶
	Firm's address ▶ TWO NORTH CENTRAL AVENUE STE 2300 PHOENIX, AZ 85004				Phone no ▶ (602) 322-3000

May the IRS discuss this return with the preparer shown above? (see instructions) ☐ Yes ☐ No

Part III

Statement of Program Service Accomplishments

Check if Schedule O contains a response to any question in this Part III

1

Briefly describe the organization's mission

SEE SCHEDULE O

2

Did the organization undertake any significant program services during the year which were not listed on the prior Form 990 or 990-EZ?

Yes

No

If "Yes," describe these new services on Schedule O

3

Did the organization cease conducting, or make significant changes in how it conducts, any program services?

Yes

No

If "Yes," describe these changes on Schedule O

4

Describe the exempt purpose achievements for each of the organization's three largest program services by expenses

Section 501(c)(3) and 501(c)(4) organizations and section 4947(a)(1) trusts are required to report the amount of grants and allocations to others, the total expenses, and revenue, if any, for each program service reported

4a

(Code) (Expenses \$ 9,543,240 including grants of \$ 0) (Revenue \$ 565,203)

CLINICAL TRIALS - SEE SCHEDULE O

4b

(Code) (Expenses \$ 7,279,057 including grants of \$ 0) (Revenue \$ 158,056)

CANCER AND CELL BIOLOGY DIVISION - SEE SCHEDULE O

4c

(Code) (Expenses \$ 7,012,934 including grants of \$ 0) (Revenue \$ 1,107,233)

GENOTYPING TECHNOLOGY CENTER - SEE SCHEDULE O

4d

Other program services (Describe in Schedule O)

(Expenses \$ 26,438,896 including grants of \$ 0) (Revenue \$ 19,163,176)

4e

Total program service expenses

\$ 50,274,127

Form 990 (2010)

Part IV Checklist of Required Schedules

	Yes	No
1 Is the organization described in section 501(c)(3) or 4947(a)(1) (other than a private foundation)? If "Yes," complete Schedule A 	1 Yes	
2 Is the organization required to complete Schedule B, Schedule of Contributors (see instruction)? 	2 Yes	
3 Did the organization engage in direct or indirect political campaign activities on behalf of or in opposition to candidates for public office? If "Yes," complete Schedule C, Part I	3	No
4 Section 501(c)(3) organizations. Did the organization engage in lobbying activities, or have a section 501(h) election in effect during the tax year? If "Yes," complete Schedule C, Part II	4	No
5 Is the organization a section 501(c)(4), 501(c)(5), or 501(c)(6) organization that receives membership dues, assessments, or similar amounts as defined in Revenue Procedure 98-19? If "Yes," complete Schedule C, Part III	5	No
6 Did the organization maintain any donor advised funds or any similar funds or accounts where donors have the right to provide advice on the distribution or investment of amounts in such funds or accounts? If "Yes," complete Schedule D, Part I 	6	No
7 Did the organization receive or hold a conservation easement, including easements to preserve open space, the environment, historic land areas or historic structures? If "Yes," complete Schedule D, Part II 	7	No
8 Did the organization maintain collections of works of art, historical treasures, or other similar assets? If "Yes," complete Schedule D, Part III 	8	No
9 Did the organization report an amount in Part X, line 21, serve as a custodian for amounts not listed in Part X, or provide credit counseling, debt management, credit repair, or debt negotiation services? If "Yes," complete Schedule D, Part IV 	9	No
10 Did the organization, directly or through a related organization, hold assets in term, permanent, or quasi-endowments? If "Yes," complete Schedule D, Part V 	10 Yes	
11 If the organization's answer to any of the following questions is 'Yes,' then complete Schedule D, Parts VI, VII, VIII, IX, or X as applicable		
a Did the organization report an amount for land, buildings, and equipment in Part X, line 10? If "Yes," complete Schedule D, Part VI. 	11a Yes	
b Did the organization report an amount for investments—other securities in Part X, line 12 that is 5% or more of its total assets reported in Part X, line 16? If "Yes," complete Schedule D, Part VII. 	11b	No
c Did the organization report an amount for investments—program related in Part X, line 13 that is 5% or more of its total assets reported in Part X, line 16? If "Yes," complete Schedule D, Part VIII. 	11c	No
d Did the organization report an amount for other assets in Part X, line 15 that is 5% or more of its total assets reported in Part X, line 16? If "Yes," complete Schedule D, Part IX. 	11d	No
e Did the organization report an amount for other liabilities in Part X, line 25? If "Yes," complete Schedule D, Part X. 	11e Yes	
f Did the organization's separate or consolidated financial statements for the tax year include a footnote that addresses the organization's liability for uncertain tax positions under FIN 48 (ASC 740)? If "Yes," complete Schedule D, Part X. 	11f Yes	
12a Did the organization obtain separate, independent audited financial statements for the tax year? If "Yes," complete Schedule D, Parts XI, XII, and XIII 	12a	No
b Was the organization included in consolidated, independent audited financial statements for the tax year? If "Yes," and if the organization answered 'No' to line 12a, then completing Schedule D, Parts XI, XII, and XIII is optional 	12b Yes	
13 Is the organization a school described in section 170(b)(1)(A)(ii)? If "Yes," complete Schedule E	13	No
14a Did the organization maintain an office, employees, or agents outside of the United States?	14a	No
b Did the organization have aggregate revenues or expenses of more than \$10,000 from grantmaking, fundraising, business, and program service activities outside the United States? If "Yes," complete Schedule F, Parts I and IV 	14b Yes	
15 Did the organization report on Part IX, column (A), line 3, more than \$5,000 of grants or assistance to any organization or entity located outside the U S? If "Yes," complete Schedule F, Parts II and IV 	15	No
16 Did the organization report on Part IX, column (A), line 3, more than \$5,000 of aggregate grants or assistance to individuals located outside the U S? If "Yes," complete Schedule F, Parts III and IV 	16	No
17 Did the organization report a total of more than \$15,000, of expenses for professional fundraising services on Part IX, column (A), lines 6 and 11e? If "Yes," complete Schedule G, Part I (see instructions)	17	No
18 Did the organization report more than \$15,000 total of fundraising event gross income and contributions on Part VIII, lines 1c and 8a? If "Yes," complete Schedule G, Part II	18	No
19 Did the organization report more than \$15,000 of gross income from gaming activities on Part VIII, line 9a? If "Yes," complete Schedule G, Part III	19	No
20a Did the organization operate one or more hospitals? If "Yes," complete Schedule H	20a	No
b If "Yes" to line 20a, did the organization attach its audited financial statement to this return? Note. Some Form 990 filers that operate one or more hospitals must attach audited financial statements (see instructions)	20b	

Part IV

Checklist of Required Schedules (continued)

21	Did the organization report more than \$5,000 of grants and other assistance to governments and organizations in the United States on Part IX, column (A), line 1? <i>If "Yes," complete Schedule I, Parts I and II</i>	21		No
22	Did the organization report more than \$5,000 of grants and other assistance to individuals in the United States on Part IX, column (A), line 2? <i>If "Yes," complete Schedule I, Parts I and III</i>	22		No
23	Did the organization answer "Yes" to Part VII, Section A, questions 3, 4, or 5, about compensation of the organization's current and former officers, directors, trustees, key employees, and highest compensated employees? <i>If "Yes," complete Schedule J</i>	23	Yes	
24a	Did the organization have a tax-exempt bond issue with an outstanding principal amount of more than \$100,000 as of the last day of the year, that was issued after December 31, 2002? <i>If "Yes," answer lines 24b–24d and complete Schedule K. If "No," go to line 25</i>	24a		No
b	Did the organization invest any proceeds of tax-exempt bonds beyond a temporary period exception?	24b		
c	Did the organization maintain an escrow account other than a refunding escrow at any time during the year to defease any tax-exempt bonds?	24c		
d	Did the organization act as an "on behalf of" issuer for bonds outstanding at any time during the year?	24d		
25a	Section 501(c)(3) and 501(c)(4) organizations. Did the organization engage in an excess benefit transaction with a disqualified person during the year? <i>If "Yes," complete Schedule L, Part I</i>	25a		No
b	Is the organization aware that it engaged in an excess benefit transaction with a disqualified person in a prior year, and that the transaction has not been reported on any of the organization's prior Forms 990 or 990-EZ? <i>If "Yes," complete Schedule L, Part I</i>	25b		No
26	Was a loan to or by a current or former officer, director, trustee, key employee, highly compensated employee, or disqualified person outstanding as of the end of the organization's tax year? <i>If "Yes," complete Schedule L, Part II</i>	26		No
27	Did the organization provide a grant or other assistance to an officer, director, trustee, key employee, substantial contributor, or a grant selection committee member, or to a person related to such an individual? <i>If "Yes," complete Schedule L, Part III</i>	27		No
28	Was the organization a party to a business transaction with one of the following parties? (see Schedule L, Part IV instructions for applicable filing thresholds, conditions, and exceptions)			
a	A current or former officer, director, trustee, or key employee? <i>If "Yes," complete Schedule L, Part IV</i>	28a		No
b	A family member of a current or former officer, director, trustee, or key employee? <i>If "Yes," complete Schedule L, Part IV</i>	28b		No
c	An entity of which a current or former officer, director, trustee, or key employee (or a family member thereof) was an officer, director, trustee, or direct or indirect owner? <i>If "Yes," complete Schedule L, Part IV</i>	28c	Yes	
29	Did the organization receive more than \$25,000 in non-cash contributions? <i>If "Yes," complete Schedule M</i>	29	Yes	
30	Did the organization receive contributions of art, historical treasures, or other similar assets, or qualified conservation contributions? <i>If "Yes," complete Schedule M</i>	30		No
31	Did the organization liquidate, terminate, or dissolve and cease operations? <i>If "Yes," complete Schedule N, Part I</i>	31		No
32	Did the organization sell, exchange, dispose of, or transfer more than 25% of its net assets? <i>If "Yes," complete Schedule N, Part II</i>	32		No
33	Did the organization own 100% of an entity disregarded as separate from the organization under Regulations sections 301.7701-2 and 301.7701-3? <i>If "Yes," complete Schedule R, Part I</i>	33	Yes	
34	Was the organization related to any tax-exempt or taxable entity? <i>If "Yes," complete Schedule R, Parts II, III, IV, and V, line 1</i>	34	Yes	
35	Is any related organization a controlled entity within the meaning of section 512(b)(13)?	35	Yes	
a	Did the organization receive any payment from or engage in any transaction with a controlled entity within the meaning of section 512(b)(13)? <i>If "Yes," complete Schedule R, Part V, line 2</i> ☐ Yes ☒ No			
36	Section 501(c)(3) organizations. Did the organization make any transfers to an exempt non-charitable related organization? <i>If "Yes," complete Schedule R, Part V, line 2</i>	36		No
37	Did the organization conduct more than 5% of its activities through an entity that is not a related organization and that is treated as a partnership for federal income tax purposes? <i>If "Yes," complete Schedule R, Part VI</i>	37		No
38	Did the organization complete Schedule O and provide explanations in Schedule O for Part VI, lines 11 and 19? Note. All Form 990 filers are required to complete Schedule O	38	Yes	

Part V Statements Regarding Other IRS Filings and Tax Compliance			
Check if Schedule O contains a response to any question in this Part V ☐			
		Yes	No
1a	Enter the number reported in Box 3 of Form 1096. Enter -0- if not applicable.	1a	41
b	Enter the number of Forms W-2G included in line 1a. Enter -0- if not applicable.	1b	0
c	Did the organization comply with backup withholding rules for reportable payments to vendors and reportable gaming (gambling) winnings to prize winners?	1c	Yes
2a	Enter the number of employees reported on Form W-3, <i>Transmittal of Wage and Tax Statements</i> filed for the calendar year ending with or within the year covered by this return.	2a	402
b	If at least one is reported on line 2a, did the organization file all required federal employment tax returns? Note. If the sum of lines 1a and 2a is greater than 250, you may be required to e-file (see instructions).	2b	Yes
3a	Did the organization have unrelated business gross income of \$1,000 or more during the year?	3a	No
b	If "Yes," has it filed a Form 990-T for this year? If "No," provide an explanation in Schedule O.	3b	
4a	At any time during the calendar year, did the organization have an interest in, or a signature or other authority over, a financial account in a foreign country (such as a bank account, securities account, or other financial account)?	4a	Yes
b	If "Yes," enter the name of the foreign country: LU See instructions for filing requirements for Form TD F 90-22.1, Report of Foreign Bank and Financial Accounts.		
5a	Was the organization a party to a prohibited tax shelter transaction at any time during the tax year?	5a	No
b	Did any taxable party notify the organization that it was or is a party to a prohibited tax shelter transaction?	5b	No
c	If "Yes" to line 5a or 5b, did the organization file Form 8886-T?	5c	
6a	Does the organization have annual gross receipts that are normally greater than \$100,000, and did the organization solicit any contributions that were not tax deductible?	6a	No
b	If "Yes," did the organization include with every solicitation an express statement that such contributions or gifts were not tax deductible?	6b	
7	Organizations that may receive deductible contributions under section 170(c).		
a	Did the organization receive a payment in excess of \$75 made partly as a contribution and partly for goods and services provided to the payor?	7a	No
b	If "Yes," did the organization notify the donor of the value of the goods or services provided?	7b	
c	Did the organization sell, exchange, or otherwise dispose of tangible personal property for which it was required to file Form 8282?	7c	No
d	If "Yes," indicate the number of Forms 8282 filed during the year.	7d	
e	Did the organization receive any funds, directly or indirectly, to pay premiums on a personal benefit contract?	7e	No
f	Did the organization, during the year, pay premiums, directly or indirectly, on a personal benefit contract?	7f	No
g	If the organization received a contribution of qualified intellectual property, did the organization file Form 8899 as required?	7g	
h	If the organization received a contribution of cars, boats, airplanes, or other vehicles, did the organization file a Form 1098-C?	7h	
8	Sponsoring organizations maintaining donor advised funds and section 509(a)(3) supporting organizations. Did the supporting organization, or a donor advised fund maintained by a sponsoring organization, have excess business holdings at any time during the year?	8	
9	Sponsoring organizations maintaining donor advised funds.		
a	Did the organization make any taxable distributions under section 4966?	9a	
b	Did the organization make a distribution to a donor, donor advisor, or related person?	9b	
10	Section 501(c)(7) organizations. Enter:		
a	Initiation fees and capital contributions included on Part VIII, line 12.	10a	
b	Gross receipts, included on Form 990, Part VIII, line 12, for public use of club facilities.	10b	
11	Section 501(c)(12) organizations. Enter:		
a	Gross income from members or shareholders.	11a	
b	Gross income from other sources (Do not net amounts due or paid to other sources against amounts due or received from them).	11b	
12a	Section 4947(a)(1) non-exempt charitable trusts. Is the organization filing Form 990 in lieu of Form 1041?	12a	
b	If "Yes," enter the amount of tax-exempt interest received or accrued during the year.	12b	
13	Section 501(c)(29) qualified nonprofit health insurance issuers.		
a	Is the organization licensed to issue qualified health plans in more than one state? Note. See the instructions for additional information the organization must report on Schedule O.	13a	
b	Enter the amount of reserves the organization is required to maintain by the states in which the organization is licensed to issue qualified health plans.	13b	
c	Enter the amount of reserves on hand.	13c	
14a	Did the organization receive any payments for indoor tanning services during the tax year?	14a	No
b	If "Yes," has it filed a Form 720 to report these payments? If "No," provide an explanation in Schedule O.	14b	

Part VI

Governance, Management, and Disclosure

For each "Yes" response to lines 2 through 7b below, and for a "No" response to lines 8a, 8b, or 10b below, describe the circumstances, processes, or changes in Schedule O. See instructions.
Check if Schedule O contains a response to any question in this Part VI

Section A. Governing Body and Management

			Yes	No
1a	Enter the number of voting members of the governing body at the end of the tax year	1a	15	
b	Enter the number of voting members included in line 1a, above, who are independent	1b	12	
2	Did any officer, director, trustee, or key employee have a family relationship or a business relationship with any other officer, director, trustee, or key employee?	2	Yes	
3	Did the organization delegate control over management duties customarily performed by or under the direct supervision of officers, directors or trustees, or key employees to a management company or other person?	3		No
4	Did the organization make any significant changes to its governing documents since the prior Form 990 was filed?	4		No
5	Did the organization become aware during the year of a significant diversion of the organization's assets?	5		No
6	Does the organization have members or stockholders?	6	Yes	
7a	Does the organization have members, stockholders, or other persons who may elect one or more members of the governing body?	7a	Yes	
b	Are any decisions of the governing body subject to approval by members, stockholders, or other persons?	7b	Yes	
8	Did the organization contemporaneously document the meetings held or written actions undertaken during the year by the following			
a	The governing body?	8a	Yes	
b	Each committee with authority to act on behalf of the governing body?	8b	Yes	
9	Is there any officer, director, trustee, or key employee listed in Part VII, Section A, who cannot be reached at the organization's mailing address? If "Yes," provide the names and addresses in Schedule O	9		No

Section B. Policies

(This Section B requests information about policies not required by the Internal Revenue Code.)

			Yes	No
10a	Does the organization have local chapters, branches, or affiliates?	10a		No
b	If "Yes," does the organization have written policies and procedures governing the activities of such chapters, affiliates, and branches to ensure their operations are consistent with those of the organization?	10b		
11a	Has the organization provided a copy of this Form 990 to all members of its governing body before filing the form?	11a	Yes	
b	Describe in Schedule O the process, if any, used by the organization to review this Form 990			
12a	Does the organization have a written conflict of interest policy? If "No," go to line 13	12a	Yes	
b	Are officers, directors or trustees, and key employees required to disclose annually interests that could give rise to conflicts?	12b	Yes	
c	Does the organization regularly and consistently monitor and enforce compliance with the policy? If "Yes," describe in Schedule O how this is done	12c	Yes	
13	Does the organization have a written whistleblower policy?	13	Yes	
14	Does the organization have a written document retention and destruction policy?	14	Yes	
15	Did the process for determining compensation of the following persons include a review and approval by independent persons, comparability data, and contemporaneous substantiation of the deliberation and decision?			
a	The organization's CEO, Executive Director, or top management official	15a	Yes	
b	Other officers or key employees of the organization	15b	Yes	
	If "Yes" to line 15a or 15b, describe the process in Schedule O (See instructions)			
16a	Did the organization invest in, contribute assets to, or participate in a joint venture or similar arrangement with a taxable entity during the year?	16a		No
b	If "Yes," has the organization adopted a written policy or procedure requiring the organization to evaluate its participation in joint venture arrangements under applicable federal tax law, and taken steps to safeguard the organization's exempt status with respect to such arrangements?	16b		

Section C. Disclosure

17	List the States with which a copy of this Form 990 is required to be filed	AZ
18	Section 6104 requires an organization to make its Form 1023 (or 1024 if applicable), 990, and 990-T (501(c) (3)s only) available for public inspection. Indicate how you make these available. Check all that apply. ☐ Own website ☐ Another's website ☒ Upon request	
19	Describe in Schedule O whether (and if so, how), the organization makes its governing documents, conflict of interest policy, and financial statements available to the public. See Additional Data Table.	
20	State the name, physical address, and telephone number of the person who possesses the books and records of the organization	ELIZABETH MONTEMAYOR 445 N 5TH ST PHOENIX, AZ 85004 (602) 343-8508

Part VII

Compensation of Officers, Directors, Trustees, Key Employees, Highest Compensated Employees, and Independent Contractors

Check if Schedule O contains a response to any question in this Part VII

Section A. Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees

1a Complete this table for all persons required to be listed Report compensation for the calendar year ending with or within the organization’s tax year

- List all of the organization’s **current** officers, directors, trustees (whether individuals or organizations), regardless of amount of compensation, and **current** key employees Enter -0- in columns (D), (E), and (F) if no compensation was paid
- List all of the organization’s **current** key employees, if any See instructions for definition of "key employee "
- List the organization’s five **current** highest compensated employees (other than an officer, director, trustee or key employee) who received reportable compensation (Box 5 of Form W-2 and/or Box 7 of Form 1099-MISC) of more than \$100,000 from the organization and any related organizations
- List all of the organization’s **former** officers, key employees, and highest compensated employees who received more than \$100,000 of reportable compensation from the organization and any related organizations
- List all of the organization’s **former directors or trustees** that received, in the capacity as a former director or trustee of the organization, more than \$10,000 of reportable compensation from the organization and any related organizations

List persons in the following order individual trustees or directors, institutional trustees, officers, key employees, highest compensated employees, and former such persons

Check this box if neither the organization nor any related organization compensated any current officer, director, or trustee

(A) Name and Title	(B) Average hours per week (describe hours for related organizations in Schedule O)	(C) Position (check all that apply)						(D) Reportable compensation from the organization (W-2/1099-MISC)	(E) Reportable compensation from related organizations (W-2/1099-MISC)	(F) Estimated amount of other compensation from the organization and related organizations
		Individual trustee or director	Institutional Trustee	Officer	Key employee	Highest compensated employee	Former			
(1) GOVERNER JAN BREWER BOARD MEMBER	1 0	X						0	0	0
(2) ROBERT BULLA BOARD MEMBER	1 0	X						0	0	0
(3) JOSE CARDENAS BOARD MEMBER / CHAIRMAN	1 0	X		X				0	0	0
(4) BENNETT DORRANCE BOARD MEMBER / SECRETARY	1 0	X		X				0	0	0
(5) PETER S FINE BOARD MEMBER	1 0	X						0	0	0
(6) DAVID GULLEN MD BOARD MEMBER	1 0	X						0	0	0
(7) JOHN KENNEDY BOARD MEMBER	1 0	X						0	0	0
(8) JEFFREY MOORAD BOARD MEMBER	1 0	X						0	0	0
(9) T LON OWEN PHD BOARD MEMBER	1 0	X						0	0	0
(10) CINDY PARSEGHIAN BOARD MEMBER / TREASURER	1 0	X		X				0	0	0
(11) WILLIAM J POST BOARD MEMBER	1 0	X						0	0	0
(12) RICHARD SILVERMAN BOARD MEMBER	1 0	X						0	0	0
(13) THE HONORABLE GREG STANTON BOARD MEMBER	1 0	X						0	0	0
(14) DAVID VAN ANDEL BOARD MEMBER	1 0	X						0	0	0
(15) JEFFREY TRENT BOARD MEMBER/PRES & SCIEN DIR	14 0	X						0	1,043,405	303,030
(16) TESS BURLESON CHIEF OPERATING OFFICER	39 0			X				438,463	0	21,555

Part VII

Section A. Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees (continued)

(A) Name and Title	(B) Average hours per week (describe hours for related organizations in Schedule O)	(C) Position (check all that apply)						(D) Reportable compensation from the organization (W-2/1099-MISC)	(E) Reportable compensation from related organizations (W-2/1099-MISC)	(F) Estimated amount of other compensation from the organization and related organizations
		Individual trustee or director	Institutional Trustee	Officer	Key employee	Highest compensated employee	Former			
(17) ELIZABETH MONTEMAYOR CHIEF FINANCIAL OFFICER	40 0			X				265,904	0	26,388
(18) DANIEL VON HOFF EXECUTIVE VICE PRESIDENT	40 0			X				638,624	0	26,714
(19) EDWARD SUH CHIEF INFORMATION OFFICER	40 0				X			279,758	0	45,633
(20) SPYRO MOUSSES VICE PRESIDENT	40 0				X			284,643	0	20,778
(21) MICHAEL BERENS PROFESSOR	40 0				X			294,211	0	44,202
(22) DAVID DUGGAN ASSOCIATE PROFESSOR	40 0				X			266,184	0	27,770
(23) JAMES HARRIS VP BUSINESS DEVELOPMENT	40 0				X			216,461	0	6,716
(24) JOHN CARPTEN PROFESSOR	40 0					X		320,177	0	23,623
(25) STEPHANIE MCRAE GENERAL COUNSEL	40 0					X		265,550	0	33,132
(26) STEPHEN GATELY TD2 PRESIDENT/SCIENTIFIC DIR	40 0					X		218,087	0	4,716
(27) STEVE DAY DIRECTOR, SOFTWARE ENGINEERING	40 0					X		212,332	0	6,772
(28) JANINE TILLI VICE PRESIDENT, HUMAN RESOURCE	40 0					X		206,499	0	8,963
1b Sub-Total										
c Total from continuation sheets to Part VII, Section A										
d Total (add lines 1b and 1c)								3,906,893	1,043,405	599,992

2

Total number of individuals (including but not limited to those listed above) who received more than \$100,000 in reportable compensation from the organization▶58

		Yes	No
3	Did the organization list any former officer, director or trustee, key employee, or highest compensated employee on line 1a? <i>If "Yes," complete Schedule J for such individual</i>		No
4	For any individual listed on line 1a, is the sum of reportable compensation and other compensation from the organization and related organizations greater than \$150,000? <i>If "Yes," complete Schedule J for such individual</i>	Yes	
5	Did any person listed on line 1a receive or accrue compensation from any unrelated organization or individual for services rendered to the organization? <i>If "Yes," complete Schedule J for such person</i>		No

Section B. Independent Contractors

1	Complete this table for your five highest compensated independent contractors that received more than \$100,000 of compensation from the organization		
(A) Name and business address		(B) Description of services	(C) Compensation
ERNST YOUNG LLP DEPT 6793 LOS ANGELES, CA 90084		AUDIT SERVICES	413,664
SAM SOLUTIONS 1625 N 11TH AVE PHOENIX, AZ 85007		IT SUPPORT SERVICES	377,421
AON RISK SERVICES 75 REMITTANCE DRIVE STE 1943 CHICAGO, IL 60675		INSURANCE BROKER	359,105
JULIE BERNARD 11076 MAPLE ROAD LAFAYETTE, CO 80026		LEGAL SERVICES	221,421
PRICEWATERHOUSECOOPERS PO BOX 514038 LOS ANGELES, CA 90051		CONSULTING SERVICES	199,250
2	Total number of independent contractors (including but not limited to those listed above) who received more than \$100,000 in compensation from the organization ▶12		

Part VIII

Statement of Revenue

			(A) Total revenue	(B) Related or exempt function revenue	(C) Unrelated business revenue	(D) Revenue excluded from tax under sections 512, 513, or 514	
Contributions, gifts, grants and other similar amounts	1a	Federated campaigns	1a				
	b	Membership dues	1b				
	c	Fundraising events	1c				
	d	Related organizations	1d	10,000,000			
	e	Government grants (contributions)	1e	18,695,359			
	f	All other contributions, gifts, grants, and similar amounts not included above	1f	10,804,522			
	g	Noncash contributions included in lines 1a-1f \$		877,046			
	h	Total. Add lines 1a-1f		39,499,881			
	Program Service Revenue	2a	Business Code				
		Research contracts	541700	20,855,027	20,855,027		
b							
c							
d							
e							
f		All other program service revenue					
g		Total. Add lines 2a-2f		20,855,027			
Other Revenue		3	Investment income (including dividends, interest and other similar amounts)		328,555		328,555
	4	Income from investment of tax-exempt bond proceeds		0			
	5	Royalties		0			
	6a	Gross Rents	(i) Real	(ii) Personal			
	b	Less rental expenses					
	c	Rental income or (loss)					
	d	Net rental income or (loss)					
	7a	Gross amount from sales of assets other than inventory	(i) Securities	(ii) Other			
	b	Less cost or other basis and sales expenses					
	c	Gain or (loss)					
	d	Net gain or (loss)			0		
	8a	Gross income from fundraising events (not including \$ _____ of contributions reported on line 1c) See Part IV, line 18	a				
	b	Less direct expenses	b				
	c	Net income or (loss) from fundraising events			0		
	9a	Gross income from gaming activities See Part IV, line 19	a				
	b	Less direct expenses	b				
	c	Net income or (loss) from gaming activities			0		
	10a	Gross sales of inventory, less returns and allowances	a				
	b	Less cost of goods sold	b				
	c	Net income or (loss) from sales of inventory			0		
	Miscellaneous Revenue	Business Code					
11a	All other revenue	900099	138,641	138,641			
b							
c							
d	All other revenue						
e	Total. Add lines 11a-11d		138,641				
12	Total revenue. See Instructions		60,822,104	20,993,668	0	328,555	

Part IX

Statement of Functional Expenses

Section 501(c)(3) and 501(c)(4) organizations must complete all columns.

All other organizations must complete column (A) but are not required to complete columns (B), (C), and (D).

Do not include amounts reported on lines 6b, 7b, 8b, 9b, and 10b of Part VIII.		(A) Total expenses	(B) Program service expenses	(C) Management and general expenses	(D) Fundraising expenses
1	Grants and other assistance to governments and organizations in the U S See Part IV, line 21	0			
2	Grants and other assistance to individuals in the U S See Part IV, line 22	0			
3	Grants and other assistance to governments, organizations, and individuals outside the U S See Part IV, lines 15 and 16	0			
4	Benefits paid to or for members	0			
5	Compensation of current officers, directors, trustees, and key employees	3,906,893	880,572	3,026,321	
6	Compensation not included above, to disqualified persons (as defined under section 4958(f)(1)) and persons described in section 4958(c)(3)(B)	0			
7	Other salaries and wages	20,133,665	13,543,763	6,589,902	
8	Pension plan contributions (include section 401(k) and section 403(b) employer contributions)	706,475	423,885	282,590	
9	Other employee benefits	1,649,452	989,671	659,781	
10	Payroll taxes	1,640,502	984,301	656,201	
a	Fees for services (non-employees)				
	Management	0			
b	Legal	539,388		539,388	
c	Accounting	583,045		583,045	
d	Lobbying	0			
e	Professional fundraising services See Part IV, line 17	0			
f	Investment management fees	0			
g	Other	12,408,389	9,306,292	3,102,097	
12	Advertising and promotion	65,030		65,030	
13	Office expenses	10,927,299	8,195,474	2,731,825	
14	Information technology	953,081	714,811	238,270	
15	Royalties	0			
16	Occupancy	5,602,717	4,202,038	1,400,679	
17	Travel	1,215,944	486,378	729,566	
18	Payments of travel or entertainment expenses for any federal, state, or local public officials	0			
19	Conferences, conventions, and meetings	335,860	134,344	201,516	
20	Interest	340,469		340,469	
21	Payments to affiliates	0			
22	Depreciation, depletion, and amortization	6,070,352	4,552,764	1,517,588	
23	Insurance	235,484	11,774	223,710	
24	Other expenses Itemize expenses not covered above (List miscellaneous expenses in line 24f If line 24f amount exceeds 10% of line 25, column (A) amount, list line 24f expenses on Schedule O)				
a	RELEASED FROM RESTRICTIONS	5,785,295	5,785,295	0	
b	ALL OTHER EXPENSES	74,174	62,765	11,409	
c					
d					
e					
f	All other expenses				
25	Total functional expenses. Add lines 1 through 24f	73,173,514	50,274,127	22,899,387	0
26	Joint costs. Check here ☒ if following SOP 98-2 (ASC 958-720) Complete this line only if the organization reported in column (B) joint costs from a combined educational campaign and fundraising solicitation				

Part X

Balance Sheet

					(A)		(B)
					Beginning of year		End of year
Assets	1	Cash—non-interest-bearing			3,212,921	1	4,799,497
	2	Savings and temporary cash investments			16,486,664	2	12,073,161
	3	Pledges and grants receivable, net			24,040,805	3	16,842,034
	4	Accounts receivable, net			3,576,941	4	1,952,991
	5	Receivables from current and former officers, directors, trustees, key employees, and highest compensated employees. Complete Part II of Schedule L				5	
	6	Receivables from other disqualified persons (as defined under section 4958(f)(1)), persons described in section 4958(c)(3)(B), and contributing employers, and sponsoring organizations of section 501(c)(9) voluntary employees' beneficiary organizations (see instructions). Schedule L				6	
	7	Notes and loans receivable, net				7	
	8	Inventories for sale or use			0	8	0
	9	Prepaid expenses and deferred charges			1,019,293	9	992,446
	10a	Land, buildings, and equipment: cost or other basis. Complete Part VI of Schedule D	10a	39,297,846			
	b	Less: accumulated depreciation	10b	25,968,823	16,200,410	10c	13,329,023
	11	Investments—publicly traded securities				11	
	12	Investments—other securities. See Part IV, line 11				12	
	13	Investments—program-related. See Part IV, line 11				13	
	14	Intangible assets				14	
	15	Other assets. See Part IV, line 11			348,740	15	614,069
	16	Total assets. Add lines 1 through 15 (must equal line 34)			64,885,774	16	50,603,221
Liabilities	17	Accounts payable and accrued expenses			5,191,806	17	5,121,425
	18	Grants payable				18	
	19	Deferred revenue			4,818,241	19	4,348,674
	20	Tax-exempt bond liabilities				20	
	21	Escrow or custodial account liability. Complete Part IV of Schedule D				21	
	22	Payables to current and former officers, directors, trustees, key employees, highest compensated employees, and disqualified persons. Complete Part II of Schedule L				22	
	23	Secured mortgages and notes payable to unrelated third parties			9,614,989	23	7,871,489
	24	Unsecured notes and loans payable to unrelated third parties				24	
	25	Other liabilities. Complete Part X of Schedule D			348,740	25	463,515
	26	Total liabilities. Add lines 17 through 25			19,973,776	26	17,805,103
Net Assets or Fund Balances		Organizations that follow SFAS 117, check here ☒ and complete lines 27 through 29, and lines 33 and 34.					
	27	Unrestricted net assets			14,751,154	27	13,945,385
	28	Temporarily restricted net assets			30,160,844	28	18,852,733
	29	Permanently restricted net assets				29	
		Organizations that do not follow SFAS 117, check here ☐ and complete lines 30 through 34.					
	30	Capital stock or trust principal, or current funds				30	
	31	Paid-in or capital surplus, or land, building or equipment fund				31	
	32	Retained earnings, endowment, accumulated income, or other funds				32	
	33	Total net assets or fund balances			44,911,998	33	32,798,118
	34	Total liabilities and net assets/fund balances			64,885,774	34	50,603,221

Part XI Reconciliation of Net Assets

Check if Schedule O contains a response to any question in this Part XI

1	Total revenue (must equal Part VIII, column (A), line 12)	1	60,822,104
2	Total expenses (must equal Part IX, column (A), line 25)	2	73,173,514
3	Revenue less expenses Subtract line 2 from line 1	3	-12,351,410
4	Net assets or fund balances at beginning of year (must equal Part X, line 33, column (A))	4	44,911,998
5	Other changes in net assets or fund balances (explain in Schedule O)	5	237,530
6	Net assets or fund balances at end of year Combine lines 3, 4, and 5 (must equal Part X, line 33, column (B))	6	32,798,118

Part XII Financial Statements and Reporting

Check if Schedule O contains a response to any question in this Part XII

		Yes	No
1	Accounting method used to prepare the Form 990 ☐ Cash ☒ Accrual ☐ Other If the organization changed its method of accounting from a prior year or checked "Other," explain in Schedule O		
2a	Were the organization's financial statements compiled or reviewed by an independent accountant?		No
b	Were the organization's financial statements audited by an independent accountant?	Yes	
c	If "Yes," to 2a or 2b, does the organization have a committee that assumes responsibility for oversight of the audit, review, or compilation of its financial statements and selection of an independent accountant? If the organization changed either its oversight process or selection process during the tax year, explain in Schedule O	Yes	
d	If "Yes" to line 2a or 2b, check a box below to indicate whether the financial statements for the year were issued on a separate basis, consolidated basis, or both ☐ Separate basis ☒ Consolidated basis ☐ Both consolidated and separated basis		
3a	As a result of a federal award, was the organization required to undergo an audit or audits as set forth in the Single Audit Act and OMB Circular A-133?	Yes	
b	If "Yes," did the organization undergo the required audit or audits? If the organization did not undergo the required audit or audits, explain why in Schedule O and describe any steps taken to undergo such audits	Yes	

SCHEDULE A
(Form 990 or 990EZ)

Department of the Treasury
Internal Revenue Service

Public Charity Status and Public Support

Complete if the organization is a section 501(c)(3) organization or a section 4947(a)(1) nonexempt charitable trust.

▶ Attach to Form 990 or Form 990-EZ. ▶ See separate instructions.

OMB No 1545-0047

2010

Open to Public
Inspection

Name of the organization THE TRANSLATIONAL GENOMICS RESEARCH INSTITUTE	Employer identification number 75-3065445
---	--

Part I Reason for Public Charity Status (All organizations must complete this part.) See instructions

The organization is not a private foundation because it is (For lines 1 through 11, check only one box)

- 1

☐

A church, convention of churches, or association of churches described in **section 170(b)(1)(A)(i).**
- 2

☐

A school described in **section 170(b)(1)(A)(ii).** (Attach Schedule E)
- 3

☐

A hospital or a cooperative hospital service organization described in **section 170(b)(1)(A)(iii).**
- 4

☐

A medical research organization operated in conjunction with a hospital described in **section 170(b)(1)(A)(iii).** Enter the hospital's name, city, and state
- 5

☐

An organization operated for the benefit of a college or university owned or operated by a governmental unit described in **section 170(b)(1)(A)(iv).** (Complete Part II)
- 6

☐

A federal, state, or local government or governmental unit described in **section 170(b)(1)(A)(v).**
- 7

☒

An organization that normally receives a substantial part of its support from a governmental unit or from the general public described in **section 170(b)(1)(A)(vi)** (Complete Part II)
- 8

☐

A community trust described in **section 170(b)(1)(A)(vi)** (Complete Part II)
- 9

☐

An organization that normally receives (1) more than 33 1/3% of its support from contributions, membership fees, and gross receipts from activities related to its exempt functions—subject to certain exceptions, and (2) no more than 33 1/3% of its support from gross investment income and unrelated business taxable income (less section 511 tax) from businesses acquired by the organization after June 30, 1975 See **section 509(a)(2).** (Complete Part III)
- 10

☐

An organization organized and operated exclusively to test for public safety See**section 509(a)(4).**
- 11

☐

An organization organized and operated exclusively for the benefit of, to perform the functions of, or to carry out the purposes of one or more publicly supported organizations described in section 509(a)(1) or section 509(a)(2) See **section 509(a)(3).** Check the box that describes the type of supporting organization and complete lines 11e through 11h

a

☐

Type I

b

☐

Type II

c

☐

Type III - Functionally integrated

d

☐

Type III - Other
- e

☐

By checking this box, I certify that the organization is not controlled directly or indirectly by one or more disqualified persons other than foundation managers and other than one or more publicly supported organizations described in section 509(a)(1) or section 509(a)(2)
- f

☐

If the organization received a written determination from the IRS that it is a Type I, Type II or Type III supporting organization, check this box
- g

☐

Since August 17, 2006, has the organization accepted any gift or contribution from any of the following persons?

(i)

a person who directly or indirectly controls, either alone or together with persons described in (ii) and (iii) below, the governing body of the the supported organization?

(ii)

a family member of a person described in (i) above?

(iii)

a 35% controlled entity of a person described in (i) or (ii) above?
- h

☐

Provide the following information about the supported organization(s)

	Yes	No
11g(i)		
11g(ii)		
11g(iii)		

(i) Name of supported organization	(ii) EIN	(iii) Type of organization (described on lines 1- 9 above or IRC section (see instructions))	(iv) Is the organization in col (i) listed in your governing document?		(v) Did you notify the organization in col (i) of your support?		(vi) Is the organization in col (i) organized in the U S ?		(vii) Amount of support
			Yes	No	Yes	No	Yes	No	
Total									

Part II

Support Schedule for Organizations Described in Sections 170(b)(1)(A)(iv) and 170(b)(1)(A)(vi)

(Complete only if you checked the box on line 5, 7, or 8 of Part I or if the organization failed to qualify under Part III. If the organization fails to qualify under the tests listed below, please complete Part III.)

Section A. Public Support						
Calendar year (or fiscal year beginning in) ▶	(a) 2006	(b) 2007	(c) 2008	(d) 2009	(e) 2010	(f) Total
1 Gifts, grants, contributions, and membership fees received (Do not include any "unusual grants.")	30,038,918	48,715,607	40,267,050	50,530,395	55,961,459	225,513,429
2 Tax revenues levied for the organization's benefit and either paid to or expended on its behalf						
3 The value of services or facilities furnished by a governmental unit to the organization without charge						
4 Total. Add lines 1 through 3	30,038,918	48,715,607	40,267,050	50,530,395	55,961,459	225,513,429
5 The portion of total contributions by each person (other than a governmental unit or publicly supported organization) included on line 1 that exceeds 2% of the amount shown on line 11, column (f)						21,585,878
6 Public Support. Subtract line 5 from line 4						203,927,551

Section B. Total Support						
Calendar year (or fiscal year beginning in) ▶	(a) 2006	(b) 2007	(c) 2008	(d) 2009	(e) 2010	(f) Total
7 Amounts from line 4	30,038,918	48,715,607	40,267,050	50,530,395	55,961,459	225,513,429
8 Gross income from interest, dividends, payments received on securities loans, rents, royalties and income from similar sources	83,242	230,227	492,533	56,756	329,668	1,192,426
9 Net income from unrelated business activities, whether or not the business is regularly carried on		65,317				65,317
10 Other income Do not include gain or loss from the sale of capital assets (Explain in Part IV.)	874,059	204,892	271,807	-8,054	209,147	1,551,851
11 Total support (Add lines 7 through 10)						228,323,023
12 Gross receipts from related activities, etc. (See instructions.)					12	102,238,338
13 First Five Years If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a 501(c)(3) organization, check this box and stop here ▶						

Section C. Computation of Public Support Percentage		
14 Public Support Percentage for 2010 (line 6 column (f) divided by line 11 column (f))	14	89.315 %
15 Public Support Percentage for 2009 Schedule A, Part II, line 14	15	58.985 %
16a 33 1/3% support test—2010. If the organization did not check the box on line 13, and line 14 is 33 1/3% or more, check this box and stop here. The organization qualifies as a publicly supported organization ▶		
b 33 1/3% support test—2009. If the organization did not check the box on line 13 or 16a, and line 15 is 33 1/3% or more, check this box and stop here. The organization qualifies as a publicly supported organization ▶		
17a 10%-facts-and-circumstances test—2010. If the organization did not check a box on line 13, 16a, or 16b and line 14 is 10% or more, and if the organization meets the "facts and circumstances" test, check this box and stop here. Explain in Part IV how the organization meets the "facts and circumstances" test. The organization qualifies as a publicly supported organization ▶		
b 10%-facts-and-circumstances test—2009. If the organization did not check a box on line 13, 16a, 16b, or 17a and line 15 is 10% or more, and if the organization meets the "facts and circumstances" test, check this box and stop here. Explain in Part IV how the organization meets the "facts and circumstances" test. The organization qualifies as a publicly supported organization ▶		
18 Private Foundation If the organization did not check a box on line 13, 16a, 16b, 17a or 17b, check this box and see instructions ▶		

Part IIIPart III

Support Schedule for Organizations Described in Section 509(a)(2)
(Complete only if you checked the box on line 9 of Part I or if the organization failed to qualify under Part II. If the organization fails to qualify under the tests listed below, please complete Part II.)

Section A. Public Support						
Calendar year (or fiscal year beginning in) 	(a) 2006	(b) 2007	(c) 2008	(d) 2009	(e) 2010	(f) Total
1 Gifts, grants, contributions, and membership fees received (Do not include any "unusual grants.")						
2 Gross receipts from admissions, merchandise sold or services performed, or facilities furnished in any activity that is related to the organization's tax-exempt purpose						
3 Gross receipts from activities that are not an unrelated trade or business under section 513						
4 Tax revenues levied for the organization's benefit and either paid to or expended on its behalf						
5 The value of services or facilities furnished by a governmental unit to the organization without charge						
6 Total. Add lines 1 through 5						
7a Amounts included on lines 1, 2, and 3 received from disqualified persons						
b Amounts included on lines 2 and 3 received from other than disqualified persons that exceed the greater of \$5,000 or 1% of the amount on line 13 for the year						
c Add lines 7a and 7b						
8 Public Support (Subtract line 7c from line 6)						

Section B. Total Support						
Calendar year (or fiscal year beginning in) 	(a) 2006	(b) 2007	(c) 2008	(d) 2009	(e) 2010	(f) Total
9 Amounts from line 6						
10a Gross income from interest, dividends, payments received on securities loans, rents, royalties and income from similar sources						
b Unrelated business taxable income (less section 511 taxes) from businesses acquired after June 30, 1975						
c Add lines 10a and 10b						
11 Net income from unrelated business activities not included in line 10b, whether or not the business is regularly carried on						
12 Other income. Do not include gain or loss from the sale of capital assets (Explain in Part IV)						
13 Total support (Add lines 9, 10c, 11 and 12)						
14 First Five Years If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a section501(c)(3) organization, check this box and stop here 						

Section C. Computation of Public Support Percentage		
15 Public Support Percentage for 2010 (line 8 column (f) divided by line 13 column (f))	15	
16 Public support percentage from 2009 Schedule A, Part III, line 15	16	

Section D. Computation of Investment Income Percentage		
17 Investment income percentage for 2010 (line 10c column (f) divided by line 13 column (f))	17	
18 Investment income percentage from 2009 Schedule A, Part III, line 17	18	
19a 33 1/3% support tests—2010. If the organization did not check the box on line 14, and line 15 is more than 33 1/3% and line 17 is not more than 33 1/3%, check this box and stop here . The organization qualifies as a publicly supported organization 		
b 33 1/3% support tests—2009. If the organization did not check a box on line 14 or line 19a, and line 16 is more than 33 1/3% and line 18 is not more than 33 1/3%, check this box and stop here . The organization qualifies as a publicly supported organization 		
20 Private Foundation If the organization did not check a box on line 14, 19a or 19b, check this box and see instructions 		

Part IV

Supplemental Information. Supplemental Information. Complete this part to provide the explanations required by Part II, line 10; Part II, line 17a or 17b; and Part III, line 12. Also complete this part for any additional information. (See instructions).

Explanation
THE ORGANIZATION HAS CHANGED ITS FISCAL YEAR END FROM 6/30 TO 11/30 IN YEAR 2010 THE PREVIOUS RETURN COVERED 6/30/10 TO 11/30/10, AND THIS RETURN IS FOR THE PERIOD 12/1/10 TO 11/30/11 THE INFORMATION INCLUDED IN SCHEDULE A PART II, SECTION A, LINE 1, COLUMN E INCLUDES INFORMATION FROM BOTH RETURNS, 6/30/10 TO 11/30/11

SCHEDULE D

(Form 990)

Department of the Treasury
Internal Revenue Service

Supplemental Financial Statements

▶ **Complete if the organization answered "Yes," to Form 990, Part IV, line 6, 7, 8, 9, 10, 11, or 12.**
▶ **Attach to Form 990. ▶ See separate instructions.**

OMB No 1545-0047

2010

Open to Public Inspection

Name of the organization
THE TRANSLATIONAL GENOMICS RESEARCH INSTITUTE

Employer identification number
75-3065445

Part I

Organizations Maintaining Donor Advised Funds or Other Similar Funds or Accounts. Complete if the organization answered "Yes" to Form 990, Part IV, line 6.

	(a) Donor advised funds	(b) Funds and other accounts
1	Total number at end of year	
2	Aggregate contributions to (during year)	
3	Aggregate grants from (during year)	
4	Aggregate value at end of year	
5	Did the organization inform all donors and donor advisors in writing that the assets held in donor advised funds are the organization's property, subject to the organization's exclusive legal control?	
	☐ Yes ☐ No	
6	Did the organization inform all grantees, donors, and donor advisors in writing that grant funds may be used only for charitable purposes and not for the benefit of the donor or donor advisor, or for any other purpose conferring impermissible private benefit	
	☐ Yes ☐ No	

Part II

Conservation Easements. Complete if the organization answered "Yes" to Form 990, Part IV, line 7.

1

Purpose(s) of conservation easements held by the organization (check all that apply)

☐ Preservation of land for public use (e g , recreation or pleasure)

☐ Preservation of an historically importantly land area

☐ Protection of natural habitat

☐ Preservation of a certified historic structure

☐ Preservation of open space

2

Complete lines 2a–2d if the organization held a qualified conservation contribution in the form of a conservation easement on the last day of the tax year

	Held at the End of the Year
a	Total number of conservation easements
b	Total acreage restricted by conservation easements
c	Number of conservation easements on a certified historic structure included in (a)
d	Number of conservation easements included in (c) acquired after 8/17/06

3

Number of conservation easements modified, transferred, released, extinguished, or terminated by the organization during the taxable year ▶ _____

4

Number of states where property subject to conservation easement is located ▶ _____

5

Does the organization have a written policy regarding the periodic monitoring, inspection, handling of violations, and enforcement of the conservation easements it holds?

☐ Yes

☐ No

6

Staff and volunteer hours devoted to monitoring, inspecting and enforcing conservation easements during the year ▶ _____

7

Amount of expenses incurred in monitoring, inspecting, and enforcing conservation easements during the year ▶ \$ _____

8

Does each conservation easement reported on line 2(d) above satisfy the requirements of section 170(h)(4)(B)(i) and 170(h)(4)(B)(ii)?

☐ Yes

☐ No

9

In Part XIV, describe how the organization reports conservation easements in its revenue and expense statement, and balance sheet, and include, if applicable, the text of the footnote to the organization’s financial statements that describes the organization’s accounting for conservation easements

Part III

Organizations Maintaining Collections of Art, Historical Treasures, or Other Similar Assets. Complete if the organization answered "Yes" to Form 990, Part IV, line 8.

1a

If the organization elected, as permitted under SFAS 116, not to report in its revenue statement and balance sheet works of art, historical treasures, or other similar assets held for public exhibition, education or research in furtherance of public service, provide, in Part XIV, the text of the footnote to its financial statements that describes these items

b

If the organization elected, as permitted under SFAS 116, to report in its revenue statement and balance sheet works of art, historical treasures, or other similar assets held for public exhibition, education, or research in furtherance of public service, provide the following amounts relating to these items

(i)

Revenues included in Form 990, Part VIII, line 1

▶ \$ _____

(ii)

Assets included in Form 990, Part X

▶ \$ _____

2

If the organization received or held works of art, historical treasures, or other similar assets for financial gain, provide the following amounts required to be reported under SFAS 116 relating to these items

a

Revenues included in Form 990, Part VIII, line 1

▶ \$ _____

b

Assets included in Form 990, Part X

▶ \$ _____

For Privacy Act and Paperwork Reduction Act Notice, see the Intructions for Form 990

Cat No 52283D

Schedule D (Form 990) 2010

Part III Organizations Maintaining Collections of Art, Historical Treasures, or Other Similar Assets *(continued)*

3

Using the organization's accession and other records, check any of the following that are a significant use of its collection items (check all that apply)

a

☐ Public exhibition

b

☐ Scholarly research

c

☐ Preservation for future generations

d

☐ Loan or exchange programs

e

☐ Other

4

Provide a description of the organization's collections and explain how they further the organization's exempt purpose in Part XIV

5

During the year, did the organization solicit or receive donations of art, historical treasures or other similar assets to be sold to raise funds rather than to be maintained as part of the organization's collection?

☐ Yes

☐ No

Part IV Escrow and Custodial Arrangements. Complete if the organization answered "Yes" to Form 990, Part IV, line 9, or reported an amount on Form 990, Part X, line 21.

1a

Is the organization an agent, trustee, custodian or other intermediary for contributions or other assets not included on Form 990, Part X?

☐ Yes

☐ No

b

If "Yes," explain the arrangement in Part XIV and complete the following table

	Amount
1c	
1d	
1e	
1f	

2a

Did the organization include an amount on Form 990, Part X, line 21?

☐ Yes

☐ No

b

If "Yes," explain the arrangement in Part XIV

Part V Endowment Funds. Complete if the organization answered "Yes" to Form 990, Part IV, line 10.

	(a)Current Year	(b)Prior Year	(c)Two Years Back	(d)Three Years Back	(e)Four Years Back
1a	Beginning of year balance	6,676,003	6,373,964	6,309,126	
b	Contributions			10,000	
c	Investment earnings or losses	550,880	786,808	422,245	
d	Grants or scholarships				
e	Other expenditures for facilities and programs	894,960	484,769	367,407	
f	Administrative expenses				
g	End of year balance	6,331,923	6,676,003	6,373,964	

2

Provide the estimated percentage of the year end balance held as

a

Board designated or quasi-endowment ▶ 0 %

b

Permanent endowment ▶ 0 %

c

Term endowment ▶ 100 000 %

3a

Are there endowment funds not in the possession of the organization that are held and administered for the organization by

(i)

unrelated organizations

3a(i)		Yes	No
3a(ii)	Yes		

(ii)

related organizations

3b	Yes	
----	-----	--

b

If "Yes" to 3a(ii), are the related organizations listed as required on Schedule R?

3b	Yes	
----	-----	--

4

Describe in Part XIV the intended uses of the organization's endowment funds

Part VI Investments—Land, Buildings, and Equipment. See Form 990, Part X, line 10.

Description of investment	(a) Cost or other basis (investment)	(b)Cost or other basis (other)	(c) Accumulated depreciation	(d) Book value
1a Land				
b Buildings				
c Leasehold improvements		5,137,146	1,701,457	3,435,689
d Equipment		29,999,154	20,697,073	9,302,081
e Other		4,161,546	3,570,293	591,253
Total. Add lines 1a-1e (Column (d) should equal Form 990, Part X, column (B), line 10(c).)				13,329,023

Part XI Reconciliation of Change in Net Assets from Form 990 to Financial Statements			
1	Total revenue (Form 990, Part VIII, column (A), line 12)	1	
2	Total expenses (Form 990, Part IX, column (A), line 25)	2	
3	Excess or (deficit) for the year Subtract line 2 from line 1	3	
4	Net unrealized gains (losses) on investments	4	
5	Donated services and use of facilities	5	
6	Investment expenses	6	
7	Prior period adjustments	7	
8	Other (Describe in Part XIV)	8	
9	Total adjustments (net) Add lines 4 - 8	9	
10	Excess or (deficit) for the year per financial statements Combine lines 3 and 9	10	

Part XII Reconciliation of Revenue per Audited Financial Statements With Revenue per Return			
1	Total revenue, gains, and other support per audited financial statements	1	
2	Amounts included on line 1 but not on Form 990, Part VIII, line 12		
a	Net unrealized gains on investments	2a	
b	Donated services and use of facilities	2b	
c	Recoveries of prior year grants	2c	
d	Other (Describe in Part XIV)	2d	
e	Add lines 2a through 2d	2e	
3	Subtract line 2e from line 1	3	
4	Amounts included on Form 990, Part VIII, line 12, but not on line 1		
a	Investment expenses not included on Form 990, Part VIII, line 7b	4a	
b	Other (Describe in Part XIV)	4b	
c	Add lines 4a and 4b	4c	
5	Total Revenue Add lines 3 and 4c. (This should equal Form 990, Part I, line 12)	5	

Part XIII Reconciliation of Expenses per Audited Financial Statements With Expenses per Return			
1	Total expenses and losses per audited financial statements	1	
2	Amounts included on line 1 but not on Form 990, Part IX, line 25		
a	Donated services and use of facilities	2a	
b	Prior year adjustments	2b	
c	Other losses	2c	
d	Other (Describe in Part XIV)	2d	
e	Add lines 2a through 2d	2e	
3	Subtract line 2e from line 1	3	
4	Amounts included on Form 990, Part IX, line 25, but not on line 1:		
a	Investment expenses not included on Form 990, Part VIII, line 7b	4a	
b	Other (Describe in Part XIV)	4b	
c	Add lines 4a and 4b	4c	
5	Total expenses Add lines 3 and 4c. (This should equal Form 990, Part I, line 18)	5	

Part XIV Supplemental Information

Complete this part to provide the descriptions required for Part II, lines 3, 5, and 9, Part III, lines 1a and 4, Part IV, lines 1b and 2b, Part V, line 4, Part X, Part XI, line 8, Part XII, lines 2d and 4b, and Part XIII, lines 2d and 4b. Also complete this part to provide any additional information.

Identifier	Return Reference	Explanation
SCHEDULE D, PART V - ENDOWMENTS		TGEN'S POLICY FOR APPROPRIATING THE DISTRIBUTION OF ITS SUMMER INTERNSHIP PROGRAM ENDOWMENT HAS BEEN DESIGNED TO SUPPORT A SPECIFIC NUMBER OF SUMMER INTERNS EACH YEAR FOR THE NEXT 25 YEARS. THE INSTITUTE CONSIDERED THE LONG-TERM EXPECTED RETURN ON ITS ENDOWMENT.
SCHEDULE D, PART X - FIN 48 (ASC 740) FOOTNOTE		Management is of the opinion that substantially all of TGen's and the Foundations' activities are related to their exempt purposes, and no material uncertain tax positions have been identified or recorded in the consolidated financial statements at November 30, 2011 or 2010. TGen and the Foundation file Forms 990 in the U.S. federal jurisdiction and comparable forms in the state of Arizona. The Institute is subject to income tax examinations for 2008 through 2011 in major tax jurisdictions.

1

2 Enter total number of recipient organizations listed above that are recognized as charities by the foreign country, recognized as tax-exempt by the IRS, or for which the grantee or counsel has provided a section 501(c)(3) equivalency letter ► _____

3 Enter total number of other organizations or entities ► _____

Part III **Grants and Other Assistance to Individuals Outside the United States.** Complete if the organization answered "Yes" to Form 990, Part IV, line 16.
Use Part V if additional space is needed.

[illegible]

Part IV Foreign Forms

- 1

Was the organization a U S transferor of property to a foreign corporation during the tax year? *If "Yes," the organization may be required to file Form 926 (see instructions for Form 926)*

☐

Yes

☒

No
- 2

Did the organization have an interest in a foreign trust during the tax year? *If " Yes," the organization may be required to file Form 3520 and/or Form 3520-A. (see instructions for Forms 3520 and 3520-A)*

☐

Yes

☒

No
- 3

Did the organization have an ownership interest in a foreign corporation during the tax year? *If "Yes," the organization may be required to file Form 5471, Information Return of U.S. Persons with respect to Certain Foreign Corporations. (see instructions for Form 5471)*

☐

Yes

☒

No
- 4

Was the organization a direct or indirect shareholder of a passive foreign investment company or a qualified electing fund during the tax year? *If "Yes," the organization may be required to file Form 8621, Return by a Shareholder of a Passive Foreign Investment Company or Qualified Electing Fund. (see instructions for Form 8621)*

☐

Yes

☒

No
- 5

Did the organization have an ownership interest in a foreign partnership during the tax year? *If "Yes," the organization may be required to file Form 8865, Return of U.S. Persons with respect to Certain Foreign Partnerships. (see instructions for Form 8865)*

☐

Yes

☒

No
- 6

Did the organization have any operations in or related to any boycotting countries during the tax year? *If "Yes," the organization may be required to file Form 5713, International Boycott Report (see instructions for Form 5713).*

☐

Yes

☒

No

Additional Data

Software ID:
Software Version:
EIN: 75-3065445
Name: THE TRANSLATIONAL GENOMICS RESEARCH
INSTITUTE

Part V **Supplemental Information**
Complete this part to provide the information (see instructions) required in Part I, line 2, and any additional information.

Schedule J
(Form 990)

Compensation Information

OMB No 1545-0047

2010

Open to Public Inspection

For certain Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees

▶ Complete if the organization answered "Yes" to Form 990, Part IV, question 23.

▶ Attach to Form 990. ▶ See separate instructions.

Name of the organization

THE TRANSLATIONAL GENOMICS RESEARCH INSTITUTE

Employer identification number

75-3065445

Part I

Questions Regarding Compensation

		Yes	No
1a	Check the appropriate box(es) if the organization provided any of the following to or for a person listed in Form 990, Part VII, Section A, line 1a Complete Part III to provide any relevant information regarding these items		
	☒ First-class or charter travel ☐ Housing allowance or residence for personal use ☐ Travel for companions ☐ Payments for business use of personal residence ☐ Tax idemnification and gross-up payments ☐ Health or social club dues or initiation fees ☐ Discretionary spending account ☐ Personal services (e g , maid, chauffeur, chef)		
b	If any of the boxes in line 1a are checked, did the organization follow a written policy regarding payment or reimbursement or provision of all the expenses described above? If "No," complete Part III to explain	1b	Yes
2	Did the organization require substantiation prior to reimbursing or allowing expenses incurred by all officers, directors, trustees, and the CEO/Executive Director, regarding the items checked in line 1a?	2	Yes
3	Indicate which, if any, of the following the organization uses to establish the compensation of the organization's CEO/Executive Director Check all that apply		
	☒ Compensation committee ☐ Written employment contract ☒ Independent compensation consultant ☒ Compensation survey or study ☐ Form 990 of other organizations ☒ Approval by the board or compensation committee		
4	During the year, did any person listed in Form 990, Part VII, Section A, line 1a with respect to the filing organization or a related organization		
a	Receive a severance payment or change-of-control payment from the organization or a related organization?	4a	No
b	Participate in, or receive payment from, a supplemental nonqualified retirement plan?	4b	No
c	Participate in, or receive payment from, an equity-based compensation arrangement?	4c	No
	If "Yes" to any of lines 4a-c, list the persons and provide the applicable amounts for each item in Part III		
	Only 501(c)(3) and 501(c)(4) organizations only must complete lines 5-9.		
5	For persons listed in form 990, Part VII, Section A, line 1a, did the organization pay or accrue any compensation contingent on the revenues of		
a	The organization?	5a	No
b	Any related organization?	5b	No
	If "Yes," to line 5a or 5b, describe in Part III		
6	For persons listed in form 990, Part VII, Section A, line 1a, did the organization pay or accrue any compensation contingent on the net earnings of		
a	The organization?	6a	No
b	Any related organization?	6b	No
	If "Yes," to line 6a or 6b, describe in Part III		
7	For persons listed in Form 990, Part VII, Section A, line 1a, did the organization provide any non-fixed payments not described in lines 5 and 6? If "Yes," describe in Part III	7	Yes
8	Were any amounts reported in Form 990, Part VII, paid or accrued pursuant to a contract that was subject to the initial contract exception described in Regs section 53 4958-4(a)(3)? If "Yes," describe in Part III	8	No
9	If "Yes" to line 8, did the organization also follow the rebuttable presumption procedure described in Regulations section 53 4958-6(c)?	9	

Part II Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees. Use duplicate copies if additional space is needed.

For each individual whose compensation must be reported in Schedule J, report compensation from the organization on row (i) and from related organizations, described in the instructions on row (ii) Do not list any individuals that are not listed on Form 990, Part VII

Note. The sum of columns (B)(i)-(iii) must equal the applicable column (D) or column (E) amounts on Form 990, Part VII, line 1a

(A) Name		(B) Breakdown of W-2 and/or 1099-MISC compensation			(C) Retirement and other deferred compensation	(D) Nontaxable benefits	(E) Total of columns (B)(i)-(D)	(F) Compensation reported in prior Form 990 or Form 990-EZ
		(i) Base compensation	(ii) Bonus & incentive compensation	(iii) Other reportable compensation				
(1) TESS BURLESON	(i)	373,106	55,605	9,752	16,500	5,055	460,018	0
	(ii)	0	0	0	0	0	0	0
(2) ELIZABETH MONTEMAYOR	(i)	221,553	34,617	9,734	12,718	13,670	292,292	0
	(ii)	0	0	0	0	0	0	0
(3) DANIEL VON HOFF	(i)	575,841	53,023	9,760	22,000	4,714	665,338	0
	(ii)	0	0	0	0	0	0	0
(4) EDWARD SUH	(i)	246,477	24,395	8,886	38,510	7,123	325,391	0
	(ii)	0	0	0	0	0	0	0
(5) SPYRO MOUSSES	(i)	249,903	25,000	9,740	13,655	7,123	305,421	0
	(ii)	0	0	0	0	0	0	0
(6) JOHN CARPTEN	(i)	218,777	91,666	9,734	16,500	7,123	343,800	0
	(ii)	0	0	0	0	0	0	0
(7) MICHAEL BERENS	(i)	268,404	16,067	9,740	38,504	5,698	338,413	0
	(ii)	0	0	0	0	0	0	0
(8) DAVID DUGGAN	(i)	204,974	51,455	9,755	16,500	11,270	293,954	0
	(ii)	0	0	0	0	0	0	0
(9) STEPHANIE MCRAE	(i)	233,594	22,222	9,734	33,000	132	298,682	0
	(ii)	0	0	0	0	0	0	0
(10) STEPHEN GATELY	(i)	207,569	10,318	200	0	4,716	222,803	0
	(ii)	0	0	0	0	0	0	0
(11) JAMES HARRIS	(i)	188,136	20,000	8,325	0	6,716	223,177	0
	(ii)	0	0	0	0	0	0	0
(12) STEVE DAY	(i)	184,816	19,350	8,166	0	6,772	219,104	0
	(ii)	0	0	0	0	0	0	0
(13) JANINE TILLI	(i)	180,507	18,050	7,942	0	8,963	215,462	0
	(ii)	0	0	0	0	0	0	0
(14) JEFFREY TRENT	(i)	0	0	0	0	0	0	0
	(ii)	853,335	130,000	60,070	291,278	11,752	1,346,435	0
(15)								
(16)								

Part III **Supplemental Information**

Complete this part to provide the information, explanation, or descriptions required for Part I, lines 1a, 1b, 4c, 5a, 5b, 6a, 6b, 7, and 8. Also complete this part for any additional information.

Identifier	Return Reference	Explanation
SCHEDULE J, PART I, LINE 1A		FIRST CLASS TRAVEL IS PERMITTED BY EXECUTIVE STAFF ONLY AND MUST, BY TGEN POLICY, BE PRE-APPROVED BY THE CHIEF OPERATING OFFICER
SCHEDULE J, PART I, LINE 7		SOME OF THE PERSONS LISTED IN FORM 990, PART VII WERE PAID BONUSES WHICH WERE BASED ON ACCOMPLISHMENTS OF SPECIFIC MILESTONES AND/OR PERFORMANCE BASES
SCHEDULE J, PART II		DR. TRENT IS PAID BY VARI, A RELATED TAX-EXEMPT ORGANIZATION. A PORTION OF HIS SALARY IS THEN REIMBURSED BY TGEN FOR SERVICES RENDERED TO TGEN.

Schedule L

(Form 990 or 990-EZ)

Department of the Treasury
Internal Revenue Service

Transactions with Interested Persons

▶ **Complete if the organization answered**
"Yes" on Form 990, Part IV, lines 25a, 25b, 26, 27, 28a, 28b, or 28c,
or Form 990-EZ, Part V lines 38a or 40b.
▶ **Attach to Form 990 or Form 990-EZ. ▶ See separate instructions.**

OMB No 1545-0047

2010

Open to Public
Inspection

Name of the organization
THE TRANSLATIONAL GENOMICS RESEARCH INSTITUTE

Employer identification number

75-3065445

Part I

Excess Benefit Transactions (section 501(c)(3) and section 501 (c)(4) organizations only).
Complete if the organization answered "Yes" on Form 990, Part IV, line 25a or 25b, or Form 990-EZ, Part V, line 40b

1	(a) Name of disqualified person	(b) Description of transaction	(c) Corrected?	
			Yes	No

2 Enter the amount of tax imposed on the organization managers or disqualified persons during the year under section 4958 ▶ \$ _____

3 Enter the amount of tax, if any, on line 2, above, reimbursed by the organization ▶ \$ _____

Part II

Loans to and/or From Interested Persons.
Complete if the organization answered "Yes" on Form 990, Part IV, line 26, or Form 990-EZ, Part V, line 38a

(a) Name of interested person and purpose	(b) Loan to or from the organization?		(c)Original principal amount	(d)Balance due	(e) In default?		(f) Approved by board or committee?		(g)Written agreement?	
	To	From			Yes	No	Yes	No	Yes	No
Total ▶ \$ _____										

Part III

Grants or Assistance Benefitting Interested Persons.
Complete if the organization answered "Yes" on Form 990, Part IV, line 27.

(a) Name of interested person	(b)Relationship between interested person and the organization	(c)Amount of grant or type of assistance

Part IV

Business Transactions Involving Interested Persons.
Complete if the organization answered "Yes" on Form 990, Part IV, line 28a, 28b, or 28c.

(a) Name of interested person	(b) Relationship between interested person and the organization	(c) Amount of transaction	(d) Description of transaction	(e) Sharing of organization's revenues?	
				Yes	No
See Additional Data Table					

Part V

Supplemental Information
Complete this part to provide additional information for responses to questions on Schedule L (see instructions)

Identifier	Return Reference	Explanation
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Additional Data

Software ID:
Software Version:
EIN: 75-3065445
Name: THE TRANSLATIONAL GENOMICS RESEARCH
INSTITUTE

Form 990, Schedule L, Part IV - Business Transactions Involving Interested Persons

(a) Name of interested person	(b) Relationship between interested person and the organization	(c) Amount of transaction \$	(d) Description of transaction	(e) Sharing of organization's revenues?	
				Yes	No
PINNACLE WEST CAPITAL	WILLIAM POST/CEO	140,475	INVESTMENT SERVICES		No
5AM SOLUTIONS	DANIEL VAN HOFF/DIRECTOR	281,404	TECHNICAL CONSULTING		No
ABRAXIS BIOSCIENCE	DANIEL VAN HOFF/DIRECTOR	332,609	SCIENTIFIC ADVISORY BOARD		No
ESPERANCE	DANIEL VAN HOFF/DIRECTOR	300,682	SCIENTIFIC ADVISORY BOARD		No
TECH66 WILLIAM BURLESON	SPOUSE OF OFFICER	50,069	CONSULTANT ON SOFTWARE PROJECT		No
APPLIED BIOLIFE TECHAPPLERA	DAVID DUGGAN/KEY EMPLOYEE	171,383	APPLIED BIO/LIFE TECH/APPLERA		No
APPLIED BIOLIFE TECHAPPLERA	DAVID DUGGAN/KEY EMPLOYEE	171,383	APPLIED BIO/LIFE TECH/APPLERA		No

SCHEDULE M
(Form 990)

Department of the Treasury
Internal Revenue Service

NonCash Contributions

►Complete if the organization answered "Yes" on Form 990, Part IV, lines 29 or 30.
► Attach to Form 990.

OMB No 1545-0047

2010

Open to Public Inspection

Name of the organization
THE TRANSLATIONAL GENOMICS RESEARCH INSTITUTE

Employer identification number
75-3065445

Part I Types of Property

	(a) Check if applicable	(b) Number of Contributions or items contributed	(c) Noncash contribution amounts reported on Form 990, Part VIII, line 1g	(d) Method of determining oncash contribution amounts
1 Art—Works of art				
2 Art—Historical treasures				
3 Art—Fractional interests				
4 Books and publications				
5 Clothing and household goods				
6 Cars and other vehicles .				
7 Boats and planes				
8 Intellectual property . .				
9 Securities—Publicly traded				
10 Securities—Closely held stock				
11 Securities—Partnership, LLC, or trust interests .				
12 Securities—Miscellaneous				
13 Qualified conservation contribution—Historic structures				
14 Qualified conservation contribution—Other . .				
15 Real estate—Residential .				
16 Real estate—Commercial				
17 Real estate—Other . .				
18 Collectibles				
19 Food inventory				
20 Drugs and medical supplies				
21 Taxidermy				
22 Historical artifacts . .				
23 Scientific specimens . .				
24 Archeological artifacts .				
25 Other ► (SEQUENCING EQUIPMENT)	X	2	828,046	COST OR SALES PRICE
26 Other ► (DISCOUNT ON LOAN)	X	0	49,000	BOOK VALUE
27 Other ► ()				
28 Other ► ()				

29 Number of Forms 8283 received by the organization during the tax year for contributions for which the organization completed Form 8283, Part IV, Donee Acknowledgement

290

30a During the year, did the organization receive by contribution any property reported in Part I, lines 1-28 that it must hold for at least three years from the date of the initial contribution, and which is not required to be used for exempt purposes for the entire holding period?

30aYesNo

No

b If "Yes," describe the arrangement in Part II

31 Does the organization have a gift acceptance policy that requires the review of any non-standard contributions?

31YesNo

No

32a Does the organization hire or use third parties or related organizations to solicit, process, or sell non-cash contributions?

32aYesNo

No

b If "Yes," describe in Part II

33 If the organization did not report revenues in column (c) for a type of property for which column (a) is checked, describe in Part II

33YesNo

Part II

Supplemental Information. Complete this part to provide the information required by Part I, lines 30b, 32b, and 33. Also complete this part for any additional information.

Identifier	Return Reference	Explanation
------------	------------------	-------------

SCHEDULE O

(Form 990 or 990-EZ)

Department of the Treasury
Internal Revenue Service

Supplemental Information to Form 990 or 990-EZ

Complete to provide information for responses to specific questions on
Form 990 or to provide any additional information.
▶ Attach to Form 990 or 990-EZ.

OMB No 1545-0047

2010

Open to Public
Inspection

Name of the organization THE TRANSLATIONAL GENOMICS RESEARCH INSTITUTE	Employer identification number 75-3065445
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Identifier	Return Reference	Explanation
ORGANIZATION'S MISSION STATEMENT	FORM 990, PART I, LINE 1, AND PART III, LINE 1	THE TRANSLATIONAL GENOMICS RESEARCH INSTITUTE (TGEN) IS A NONPROFIT BIOMEDICAL RESEARCH INSTITUTE FOCUSED ON DEVELOPING EARLIER DIAGNOSTICS AND SMARTER TREATMENTS BY EMPLOYING INNOVATIVE ADVANCES ARISING FROM THE HUMAN GENOME PROJECT AND APPLYING THEM TO THE DEVELOPMENT OF DIAGNOSTICS, PROGNOSTICS AND THERAPIES FOR CANCER, NEUROLOGICAL DISORDERS, DIABETES AND OTHER COMPLEX DISEASES

Identifier	Return Reference	Explanation
DESCRIPTION OF PROGRAM SERVICE ACCOMPLISHMENTS	FORM 990, PART III, LINES 4A - 4C	LINE 4A - PROGRAM SERVICE ACTIVITY #1 TGEN'S TCRS CLINICIANS FOCUS ON CLINICAL TRIALS WITH TARGETED AGENTS AND GENOMICS-BASED INDIVIDUALIZED THERAPY THE TCRS, WITH AN INITIAL FOCUS ON CANCER, ALLOWS THE UNIQUE OPPORTUNITY FOR TGEN TO TRANSITION ITS LABORATORY-BASED RESEARCH TO PATIENT CARE CENTERED ON INDIVIDUALIZED THERAPY LINE 4B - PROGRAM SERVICE ACTIVITY #2 TGEN'S CANCER AND CELL BIOLOGY DIVISION IS WORKING TO DISCOVER VALID MARKERS AND THERAPEUTIC TARGETS FOR TREATING HUMAN DISEASE THE DIVISION SUPPORTS LAB PROGRAMS IN BREAST CANCER, MELANOMA, LUNG CANCER, HEAD AND NECK TUMORS AS WELL AS BOTH PRIMARY AND METASTATIC BRAIN TUMORS LINE 4C - PROGRAM SERVICE ACTIVITY #3 TGEN'S GENOTYPING TECHNOLOGY CENTER ANALYZES BITS OF DNA CALLED SINGLE NUCLEOTIDE POLY MORPHISMS (SNPS) WHICH GIVE RESEARCHERS THE POWER TO IDENTIFY DISEASE-CAUSING GENES, ASSOCIATIONS, AND DNA SIGNATURES, ALL OF WHICH HAVE PROFOUND IMPLICATIONS FOR DETECTION, PROGNOSIS AND THERAPEUTIC INTERVENTION THE SNP GENOTYPING CENTER OFFERS INNOVATIVE SOLUTIONS THAT ADDRESS THE REQUIREMENTS FOR FLEXIBILITY, SIMPLICITY, THROUGHPUT, ECONOMY, AND ACCURACY

Identifier	Return Reference	Explanation
FORM 990, PART III, LINE 4D - OTHER PROGRAM SERVICES		INTRODUCTION FY 11 WAS A YEAR OF ACCELERATED TRANSITION FOR TGEN, ONE THAT LED TO INCREASED OPPORTUNITY TO ADVANCE OUR SCIENCE, BROADEN OUR AUDIENCE, AND - MOST IMPORTANTLY - MAKE A DIFFERENCE FOR PATIENTS. A MAJOR TECHNOLOGY SHIFT AND ONE THAT INFORMED OUR RESEARCH WITH A DEPTH AND PRECISION PREVIOUSLY UNAVAILABLE WAS OUR INCREASED USE OF WHOLE-GENOME SEQUENCING (WGS). WGS PROVIDES THE MOST COMPLETE SET OF COMPARISONS BETWEEN A PATIENT'S NORMAL DNA AND THAT FOUND IN A PATIENT'S CANCEROUS TUMORS. THOUGH IN ITS EARLY STAGES, THE USE OF WGS AS A DIAGNOSTIC, AND IN FACT A THERAPEUTIC AID TO THE PHYSICIAN'S "TOOLKIT," IS PART OF THE FUTURE IN MEDICINE HAPPENING AT TGEN TODAY. THIS IS TECHNOLOGY THAT CAN REALLY MAKE A DIFFERENCE IN PATIENTS WITH CANCER AND, HOPEFULLY SOON, BEYOND. AFTER HELPING IDENTIFY THE SOURCE OF LAST YEAR'S CHOLERA OUTBREAK IN EARTHQUAKE-RAVAGED HAITI, DR. PAUL KEIM, DIRECTOR OF TGEN'S PATHOGEN GENOMICS DIVISION IN FLAGSTAFF, MET WITH INTERNATIONAL HEALTH OFFICIALS ABOUT HOW TESTS DEVELOPED BY TGEN COULD HELP PREVENT INTERNATIONAL DISEASE OUTBREAKS. TGEN PASSED A MILESTONE IN MAY 2011 WHEN WE LICENSED OUR FIRST DRUG, ONCO-101, A UNIQUE COMPOUND THAT TARGETS CANCER TUMORS BY MODIFYING THE ACTIONS OF PROTEINS. THIS WAS ANOTHER FULFILLMENT TOWARD OUR PRIMARY MISSION OF MOVING LABORATORY DISCOVERIES MORE RAPIDLY INTO THERAPEUTICS FOR PATIENT BENEFIT. CLINICALLY, WE CONTINUE TO LAUNCH INNOVATIVE PROGRAMS THAT EXPAND THE BOUNDARIES OF SCIENCE AND MEDICINE. IN FEBRUARY 2011, COLLABORATING WITH MAYO CLINIC ARIZONA, TGEN FACULTY PERFORMED WHAT WE BELIEVE TO BE THE FIRST WHOLE-GENOME SEQUENCING OF A PATIENT IN AN ACTIVE CLINICAL TRIAL. SEQUENCING PROVIDED A MACRO COMPARISON BETWEEN THE PATIENT'S NORMAL DNA AND THAT OF HIS CANCEROUS TUMOR IN HOPE OF SINGLING OUT AN INDIVIDUAL PROTEIN OR MOLECULAR DRUG TARGET FOR THERAPY. MAYO CLINICIANS USED THE RESULTS TO INFORM THEIR CHOICE OF HOW TO BEST TREAT THE PATIENT. THIS GENOMIC-BASED PERSONALIZED MEDICINE APPROACH MAY SOON BECOME THE STANDARD THERAPEUTIC BAROMETER. FUNDS FROM A FLINN FOUNDATION PROTEOMICS GRANT PROVIDE SIGNIFICANT SUPPORT FOR THE DEVELOPMENT OF A COMPREHENSIVE AND SUSTAINABLE PROGRAM IN PROTEOMIC SCIENCES AT TGEN AND ENABLE THE GOALS OF THE PARTNERSHIP FOR PERSONALIZED MEDICINE (PPM). WE ARE COLLABORATING WITH LOCAL RESEARCH AND TECHNOLOGY DEVELOPMENT PARTNERS TO ACCELERATE OUTCOMES THAT REALIZE THE MISSION OF THE PPM TO DISCOVER AND VALIDATE NEW PROTEIN-BASED BIOMARKERS OF HUMAN DISEASE THAT WILL DIRECTLY INFORM CLINICAL DECISIONS FOR INDIVIDUAL PATIENTS AND IMPROVE HEALTH CARE. WE ALSO CONTINUE TO BENCHMARK A NUMBER OF ADMINISTRATIVE FUNCTIONS TO FURTHER REFINE AND DEVELOP OUR EFFORTS IN SUPPORT OF SCIENCE. CORE AREAS INCLUDE BUSINESS DEVELOPMENT, CONTRACTS, GRANTS AND PROJECT MANAGEMENT. THIS COMMITMENT TO CONTINUOUS IMPROVEMENT ALLOWS TGEN TO OPERATE AT ITS HIGHEST LEVEL. PEER-REVIEWED LABORATORY RESEARCH, PUBLICATIONS, AND PRESENTATIONS SINCE ITS INCEPTION, THE RESEARCH AND CLINICAL ASPECTS OF TGEN HAVE FOCUSED SOLELY ON THE PATIENT AS THE END POINT. OUR CLINICAL TRIALS - IN COLLABORATION WITH SCOTTSDALE HEALTHCARE, MAYO CLINIC AND OTHERS - NOT ONLY OFFER HOPE TO PATIENTS SUFFERING FROM MANY TYPES OF CANCER, THE RESULTS SERVE TO INFORM OUR RESEARCH STUDIES. SUPPORTED BY A NEW WAVE OF TECHNOLOGY, TGEN'S RESEARCH AND CLINICAL EFFORTS REMAIN EQUAL TO THE STRENGTHS AND CAPABILITIES OF ANY OF TODAY'S LEADING RESEARCH AND CLINICAL INSTITUTES, AND IN FY 11 HELPED LAND THREE MAJOR INITIATIVES. 1. AS PART OF A STAND-UP TO CANCER MELANOMA DREAM TEAM, TGEN AND THE BARBARA ANN KARMANOS CANCER INSTITUTE WILL LEAD A \$6 MILLION NATIONAL AND INTERNATIONAL STUDY OF A DEADLY TYPE OF SKIN CANCER, BRAF WILD-TYPE, FOR WHICH THERE ARE FEW TREATMENT OPTIONS. TGEN PREVIOUSLY RECEIVED A SU2C GRANT FOR PANCREATIC CANCER RESEARCH. 2. DELL ANNOUNCED A MAJOR COMMITMENT OF FUNDING, EMPLOYEE ENGAGEMENT AND CLOUD COMPUTING TECHNOLOGY TO SUPPORT PEDIATRIC CANCER RESEARCH PROGRAMS GLOBALLY, INCLUDING THE WORLD'S FIRST PERSONALIZED MEDICINE TRIAL FOR PEDIATRIC CANCER CONDUCTED BY THE NEUROBLASTOMA AND MEDULLOBLASTOMA TRANSLATIONAL RESEARCH CONSORTIUM (NMTRC), SUPPORTED BY TGEN. WE WILL USE OUR GENOMIC TECHNOLOGY WITHIN DELL'S DONATED CLOUD TO HELP NMTRC IDENTIFY A GREATER DEPTH OF PERSONALIZED TREATMENT STRATEGIES FOR CHILDREN WITH NEUROBLASTOMA ENROLLED IN NMTRC'S CLINICAL TRIAL. 3. TGEN BECAME PART OF A TEAM OF MEDICAL INVESTIGATORS WHO RECEIVED A \$3.5 MILLION PROMISE GRANT FROM SUSAN G. KOMEN FOR THE CURE TO STUDY TRIPLE-NEGATIVE BREAST CANCER, ANOTHER TYPE OF CANCER FOR WHICH THERE NOW ARE FEW TREATMENT OPTIONS. AREAS OF RESEARCH FALL INTO THREE CATEGORIES - ONCOLOGY (MELANOMA, BREAST, PROSTATE, OVARIAN, LUNG CANCERS, ETC.), METABOLIC DISEASES (DIABETES AND HEART DISEASE) AND NEUROLOGICAL DISEASES (AUTISM, ALZHEIMER'S, ALS, AND OTHER BRAIN-RELATED DISEASES) - ALL OF WHICH IMPACT ARIZONANS AT ALARMING RATES. THE RESEARCH RESULTS APPEAR IN A NUMBER OF SCIENTIFIC AND ME

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FORM 990, PART III, LINE 4D - OTHER PROGRAM SERVICES		DICAL JOURNALS AND ADD TO THE GROWING KNOWLEDGE BASE OF MOLECULAR RESEARCH AND MEDICINE. IN FY11, TGEN RESEARCHERS PUBLISHED THEIR RESEARCH RESULTS IN NUMEROUS SCHOLARLY PEER-REVIEWED ACADEMIC JOURNALS AND THROUGH PRESENTATIONS AT LEADING NATIONAL AND INTERNATIONAL CONFERENCES. THESE INCLUDE PUBLICATION IN LEADING SCIENTIFIC JOURNALS SUCH AS NATURE, CANCER, JOURNAL OF CLINICAL ONCOLOGY, PLOS, MOLECULAR CANCER RESEARCH, AND A HOST OF OTHER DISEASE-ASSOCIATED PUBLICATIONS (E.G. DIABETES, JOURNAL OF CANCER, ETC).

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SELECT HIGHLIGHTS FOR FY11		1 IN A STUDY OF 144 PATIENTS WITH ADVANCED CANCER, INCLUDING COLORECTAL, OTHER GASTROINTESTINAL AND PROSTATE CANCERS, RESEARCHERS AT TGEN AND SCOTTSDALE HEALTHCARE DOCUMENTED A STATISTICALLY SIGNIFICANT DECREASE IN PROGRESSION-FREE SURVIVAL WITH EACH SUCCESSIVE STANDARD THERAPY THE STUDY PUBLISHED NOV 28 IN THE JOURNAL OF CANCER CONCLUDED THAT NEW THERAPIES THAT REVERSE THIS TREND MIGHT LEAD TO IMPROVED CLINICAL OUTCOMES CITATION "PROGRESSION-FREE SURVIVAL DECREASES WITH EACH SUBSEQUENT THERAPY IN PATIENTS PRESENTING FOR PHASE I CLINICAL TRIALS " CHRISTOPHER H BAILEY, GAYLE JAMESON, CHAO SIMA, SHARON FLECK, ERICA WHITE, DANIEL D VON HOFF, GLEN J WEISS J CANCER 2012, 3 7-13 2 A TGEN STUDY PUBLISHED NOV 22 IN THE JOURNAL OF LUNG CANCER SHOWED THAT KEY DOWNSTREAM COMPONENTS OF THE HEDGEHOG SIGNALING PATHWAY (HHSP), WHICH HAS BEEN IMPLICATED IN THE DEVELOPMENT OF MULTIPLE CANCERS , SHOW CORRELATION WITH SONIC HEDGEHOG LIGAND (SHH) EXPRESSION, SUGGESTING THAT LIGAND-DEPENDENT SIGNALING IS MORE PREVALENT IN PRIMARY NON-SMALL CELL LUNG CANCER TUMORS CITATION RAZ G, ALLEN KE, KINGSLEY C, CHERNII, ARORA S, WATANABE A, LORENZO CD, EDWARDS V DK, SRIDHARS, HOSTETTER G, WEISS GJ "HEDGEHOG SIGNALING PATHWAY MOLECULES AND ALDH1A1 EXPRESSION IN EARLY-STAGE NON-SMALL CELL LUNG CANCER " DOI 10 1016/J LUNGCAN 2011 10 015 3 TGEN AND SCOTTSDALE HEALTHCARE COLLABORATORS AT THE VIRGINIA G PIPER CANCER CENTER DISCOVERED A BETTER TREATMENT FOR PANCREATIC CANCER PATIENTS, ACCORDING TO A STUDY PUBLISHED IN THE PAST MONTH BY THE JOURNAL OF CLINICAL ONCOLOGY THIS SIGNIFICANT STUDY SHOWED THAT A COMBINATION OF DRUGS HELPED EXTEND SURVIVAL OF PANCREATIC CANCER PATIENTS, PRODUCED "SUBSTANTIAL" ANTI-TUMOR ACTIVITY, AND THAT A PHASE III STUDY IS WARRANTED CITATION "GEMCITABINE PLUS NAB-PACLITAXEL IS AN ACTIVE REGIMEN IN PATIENTS WITH ADVANCED PANCREATIC CANCER A PHASE I/II TRIAL " DANIEL D VON HOFF, RAMESH K RAMANATHAN, MITESH J BORAD, DANIEL LAHERU, LON S SMITH, TINA E WOOD, RONALD L KORN, NEIL DESAI, VUONG TRIEU, JOSE L IGLESIAS, HUI ZHANG, PATRICK SOON-SHIONG, TAO SHI, N V RAJESHKUMAR, ANIRBAN MAITRA, AND MANUEL HIDALGO J CLIN ONCOL 29 2011 BY AMERICAN SOCIETY OF CLINICAL ONCOLOGY ZDOI 10 1200/JCO 2011 36 574 2 4 USING WHOLE-GENOME SEQUENCING, TGEN'S PATHOGEN GENOMICS DIVISION PINPOINTED THE SOURCE OF LAST YEAR'S CHOLERA OUTBREAK IN EARTHQUAKE-BATTERED HAITI, ACCORDING TO A STUDY PUBLISHED AUGUST 23 IN THE NEW JOURNAL MBIO THE RESULTS INDICATED THAT THE SOURCE OF THE INFECTION (CONFIRMED BY MULTIPLE LABORATORIES) WAS THE NEPAL PEACEKEEPING SOLDIERS, WHO UNKNOWNLY BROUGHT THE DISEASE DR KEIM AND HIS TEAM SHOWED CONCLUSIVELY THAT IN THE FUTURE SIMPLE TESTS COULD HELP IDENTIFY QUICKLY THE CAUSATIVE AGENT AND ALLOW RAPID STEPS TO PREVENT SUCH DISEASE OUTBREAKS IN THE WAKE OF FUTURE DISASTERS CITATION "POPULATION GENETICS OF VIBRIO CHOLERAE FROM NEPAL IN 2010 EVIDENCE ON THE ORIGIN OF THE HAITIAN OUTBREAK " RENES HENDRIKSEN, PAUL S KEIM, LANCE B PRICE, DAVID M ENGELTHALER, ET AL 2011 MBIO 2(4) E00157-11 DOI 10 1128/MBIO 00157-11 5 COLLABORATING WITH VAN ANDEL RESEARCH INSTITUTE SCIENTISTS, INCLUDING DR JEFF MACKEIGAN, TGEN'S DR GLEN WEISS PRESENTED AN ABSTRACT IN JULY AT THE 14TH WORLD CONFERENCE ON LUNG CANCER IN AMSTERDAM THE STUDY FOUND THAT THE STAT3 GENE IS ACTIVATED IN SOME NON-SMALL-CELL LUNG CANCER (NSCLC) CELL LINES BY THE JAK2 PROTEIN AND THAT THIS SIGNALING CAN PLAY A CRUCIAL ROLE IN TUMOR-CELL BEHAVIOR THAT MAY NOT BE EFFECTIVELY INHIBITED BY DRUGS THAT SELECTIVELY TARGET THESE MUTATIONS CITATION "STAT 3 IS ACTIVATED BY JAK2 INDEPENDENT OF KEY ONCOGENIC DRIVER MUTATIONS IN NSCLC " G J WEISS , B D LOOYENGA, D HUTCHINGS, I CHERNI, C KINGSLEY, C D LORENZO, D K EDWARDS V, S SRIDHAR, J P MACKEIGAN ALSO PUBLISHED IN A SUPPLEMENT OF THE JOURNAL OF THORACIC ONCOLOGY 6 DEADLY BACTERIA MAY BE EVOLVING ANTIBIOTIC RESISTANCE BY MIMICKING HUMAN PROTEINS, ACCORDING TO A TGEN STUDY PUBLISHED MAY 26 IN THE JOURNAL PUBLIC LIBRARY OF SCIENCE (PLOS) ONE DR MIA CHAMPION OF TGEN'S PATHOGEN GENOMICS DIVISION SHOWED HOW THIS PROCESS OF "MOLECULAR MIMICRY" MAY HELP EXPLAIN WHY BACTERIAL HUMAN PATHOGENS, MANY OF WHICH WERE AT ONE TIME EASILY TREATABLE WITH ANTIBIOTICS, HAVE RE-EMERGED IN RECENT YEARS AS HIGHLY INFECTIOUS PUBLIC HEALTH THREATS CITATION "HOST-PATHOGEN O-METHYLTRANSFERASE SIMILARITY AND ITS SPECIFIC PRESENCE IN HIGHLY VIRULENT STRAINS OF FRANCISELLA TULARENSIS SUGGESTS MOLECULAR MIMICRY " MIA D CHAMPION PLOS ONE 2011, 6(5) E20295 PUBLISHED ONLINE 2011 MAY 26 DOI 10 1371/JOURNAL PONE.0020295 7 A GENE CALLED PVT1 MAY HELP REDUCE THE KIDNEY'S ABILITY TO FILTER BLOOD, LEADING TO KIDNEY DISEASE, KIDNEY FAILURE AND DEATH, ACCORDING TO A STUDY PUBLISHED APRIL 22 IN THE PUBLIC LIBRARY OF SCIENCE (PLOS) ONE THE TGEN TEAM FOUND PVT1 EXPRESSION LEVELS INCREASED UP TO 5-FOLD IN RESPONSE TO HYPERGLYCEMIA, OR HIGH BLOOD SUGAR, A CONDITION THAT OFTEN ACCOMPANIES DIABETES CITA

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SELECT HIGHLIGHTS FOR FY11		TION "FUNCTIONAL CHARACTERIZATION OF THE PLASMACYTOMA VARIANT TRANSLOCATION 1 GENE (PVT1) IN DIABETIC NEPHROPATHY " M LUCRECIA ALVAREZ AND JOHANNA K DISTEFANO PLOS ONE 6(4) E1 8671 8 DRUG-RESISTANT STRAINS OF STAPHYLOCOCCUS AUREUS, A BACTERIA LINKED TO A WIDE RANGE OF HUMAN DISEASES, ARE PRESENT IN MEAT AND POULTRY FROM U S GROCERY STORES AT UNEXPECTEDLY HIGH RATES, ACCORDING TO A NATIONWIDE TGEN STUDY PUBLISHED APRIL 15 IN THE JOURNAL CLINICAL INFECTIOUS DISEASES NEARLY HALF OF THE MEAT AND POULTRY SAMPLES - 47 PERCENT - WERE CONTAMINATED WITH S AUREUS, AND MORE THAN HALF OF THOSE BACTERIA - 52 PERCENT - WERE RESISTANT TO AT LEAST THREE CLASSES OF ANTIBIOTICS CITATION "MULTIDRUG-RESISTANT STAPHYLOCOCCUS AUREUS IN U S MEAT AND POULTRY " ANDREW E WATERS, TANIA CONTENTE-CUOMO, JORDAN BUCHHAGEN, CINDY M LIU, LINDSEY WATSON, KIMBERLY PEARCE, JEFFREY T FOSTER, JOLENE BOWERS, ELIZABETH M DRIEBE, DAVID M ENGELTHALER, PAUL S KEIM AND LANCE B PRICE CLIN INFECT DIS (2011) 9 PUBLISHED MARCH 24 IN THE PRESTIGIOUS JOURNAL, NATURE, A NATIONWIDE STUDY BY 20 INSTITUTES, INCLUDING TGEN, UNVEILED THE MOST COMPREHENSIVE PICTURE TO DATE OF THE GENETIC BLUEPRINT OF MULTIPLE MYELOMA, AN ALL-TOO-COMMON FORM OF BONE MARROW CANCER THE STUDY INVOLVED WHOLE GENOME SEQUENCING OF NORMAL AND TUMOR DNA FROM 38 MULTIPLE MYELOMA PATIENTS TO ASSESS TUMOR-SPECIFIC CHANGES ACROSS THE ENTIRE 3-BILLION-LETTER HUMAN GENOME, YIELDING NEW AND UNEXPECTED INSIGHTS INTO THE EVENTS THAT LEAD TO THIS FORM OF CANCER CITATION "INITIAL GENOME SEQUENCING AND ANALYSIS OF MULTIPLE MYELOMA " TGEN CONTRIBUTORS WERE ANGELA BAKER, JOHN CARPTEN AND JEFFREY TRENT NATURE 471, 467-472 (24 MARCH 2011) 10 A STUDY PUBLISHED IN THE FEBRUARY 2011 EDITION OF MOLECULAR CANCER RESEARCH OUTLINES HOW GENOMIC RESEARCH COULD HELP DOCTORS BETTER TARGET A DRUG, OXALIPLATIN IT IS WIDELY USED TO TREAT COLORECTAL CANCER PATIENTS, BUT OFTEN HAS SIGNIFICANT SIDE EFFECTS, CREATING AN URGENT NEED TO IDENTIFY PATIENTS MOST LIKELY TO BENEFIT FROM THIS THERAPY CITATION "FUNCTIONAL GENOMICS REVEALS DIVERSE CELLULAR PROCESSES THAT MODULATE TUMOR CELL RESPONSE TO OXALIPLATIN " KELLY A HARRADINE, MICHELLE KASSNER, DONALD CHOW, MERAJ AZIZ, DANIEL D VON HOFF, JOFFRE BAKER, HOLLY YIN AND ROBERT J PELHAM MOL CANCER RES, PUBLISHED ONLINE FIRST DECEMBER 17, 2010, DOI 10.1158/1541-7786.MCR-10-0412 11 CANCER PATIENTS ARE WILLING TO UNDERGO MANY TESTS TO RECEIVE ADVANCED EXPERIMENTAL TREATMENT IN CLINICAL TRIALS, ACCORDING TO A TGEN-LED STUDY PUBLISHED IN JANUARY IN THE JOURNAL CANCER RESEARCHERS SAID PATIENTS' WILLINGNESSTO UNDERGO TESTS BODES WELL FOR THE FUTURE OF PERSONALIZED MEDICINE, IN WHICH SPECIFIC TREATMENTS ARE PRESCRIBED DEPENDING ON THE DNA GENETIC MAKEUP OF PATIENTS' TUMORS CITATION "PATIENT WILLINGNESS TO UNDERGO PHARMACODYNAMIC AND PHARMACOKINETIC TESTS IN EARLY PHASE ONCOLOGY TRIALS " RAOUL TIBES, MD, PHD, BARBARA F PIPER, DNSC, RN, JESSICA A SMITH, BA, RAY SENIA L JAMES, MPH, MARTIN A BENJAMIN, BS, JAY H YIM, RAMESH K RAMANATHAN, MD, DANIEL D VON HOFF, MD, R CURTIS BAY, PHD, AND MITESH J BORAD, MD CANCER 2011 JAN 18

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CLINICAL RESEARCH		ESTABLISHED IN 2006, A STRATEGIC ALLIANCE WITH SCOTTSDALE HEALTHCARE (SHC) PROVIDES A DIRECT CLINICAL RESEARCH SITE FOR TGEN. THE COLLABORATION BRINGS NEW CLINICAL RESEARCH INTO THE COMMUNITY, TO THOSE PATIENTS WHO WOULD OTHERWISE HAVE TO TRAVEL SOMEPLACE ELSE FOR ACCESS TO NEW THERAPIES OR PREVENTION AGENTS. IN THE PAST SIX YEARS, THESE CLINICAL TRIALS HAVE PROVIDED OPTIONS THAT DID NOT EXIST BEFORE TO PHOENIX-AREA PATIENTS AS WELL AS PATIENTS FROM ALL OVER THE COUNTRY. TRIALS IN FY 11 PROVIDED HOPE FOR PATIENTS WITH ADVANCED AND/OR RARE CANCERS. ELIGIBLE CANCER PATIENTS WHO CONSENT TO PARTICIPATE IN A CLINICAL TRIAL STUDY WILL RECEIVE TREATMENT COORDINATED BY SCOTTSDALE HEALTHCARE. THE TREATMENT TEAM MAY INCLUDE RESEARCH PHYSICIANS, RESEARCH NURSES, DATA MANAGERS AND COMMUNITY ONCOLOGISTS. TGEN PHYSICIAN-IN-CHIEF DANIEL D. VON HOFF, M.D., LEADS THE TRIALS. DR. VON HOFF ALSO SERVES AS CHIEF SCIENTIFIC OFFICER FOR SCOTTSDALE HEALTHCARE RESEARCH INSTITUTE. OTHER MEMBERS OF THE CLINICAL TEAM INCLUDE RAMESH K. RAMANATHAN, M.D. MEDICAL DIRECTOR, TCRS, DIRECTOR, GASTROINTESTINAL ONCOLOGY PROGRAM; GLEN J. WEISS, M.D. DIRECTOR, THORACIC ONCOLOGY PROGRAM; JASGIT SACHDEV, M.D. ASSOCIATE INVESTIGATOR; GAYLE JAMESON, MSN, ACNP, AOCN DIRECTOR, SUPPORTIVE CARE PROGRAM; ASSISTANT INVESTIGATOR CATHY MAST, APRN-BC, AOCNP NURSE PRACTITIONER; JOYCE SCHAFFER, RN, MSN, OCN CANCER CLINICAL TRIALS COORDINATOR. PARTICIPANTS IN CLINICAL TRIALS CAN PLAY A MORE ACTIVE ROLE IN THEIR OWN HEALTH CARE, GAIN ACCESS TO NEW RESEARCH TREATMENTS BEFORE THEY ARE WIDELY AVAILABLE, AND HELP OTHERS BY CONTRIBUTING TO MEDICAL RESEARCH. CLINICAL TRIALS ARE CONDUCTED IN PHASES. THE TRIALS AT EACH PHASE HAVE A DIFFERENT PURPOSE AND HELP SCIENTISTS ANSWER DIFFERENT QUESTIONS. IN PHASE I TRIALS, RESEARCHERS TEST AN EXPERIMENTAL DRUG OR TREATMENT IN A SMALL GROUP OF PEOPLE (20-80) FOR THE FIRST TIME TO EVALUATE ITS SAFETY, DETERMINE A SAFE DOSAGE RANGE, AND IDENTIFY SIDE EFFECTS. IN PHASE II TRIALS, THE EXPERIMENTAL STUDY DRUG OR TREATMENT IS GIVEN TO A LARGER GROUP OF PEOPLE (100-300) TO SEE IF IT IS EFFECTIVE AND TO FURTHER EVALUATE ITS SAFETY. IN PHASE III TRIALS, THE EXPERIMENTAL STUDY DRUG OR TREATMENT IS GIVEN TO LARGE GROUPS OF PEOPLE (1,000-3,000) TO CONFIRM ITS EFFECTIVENESS, MONITOR SIDE EFFECTS, COMPARE IT TO COMMONLY USED TREATMENTS, AND COLLECT INFORMATION THAT WILL ALLOW THE EXPERIMENTAL DRUG OR TREATMENT TO BE USED SAFELY. IN PHASE IV TRIALS, POST-MARKETING STUDIES DELINEATE ADDITIONAL INFORMATION INCLUDING THE DRUG'S RISKS, BENEFITS, AND OPTIMAL USE. PATIENT PARTICIPATION IN CLINICAL TRIALS AT TCRS - 300 VISITS PER MONTH - 35-45 NEW PATIENTS PER MONTH - AVERAGE 95 ACTIVE CLINICAL TRIAL PATIENTS.

Identifier	Return Reference	Explanation
GRANT SUPPORT		GRANT FUNDING IS OFTEN THE LIFEblood OF RESEARCH. In FY11, TGEN INVESTIGATORS SUBMITTED 145 GRANTS TOTALING \$152,705,359. TGEN WAS AWARDED 17 GRANTS, TOTALING \$4,189,894, WITH AN ADDITIONAL 56 GRANTS PENDING AND IN REVIEW TOTALING \$64,521,876. ADDITIONALLY, TGEN RECEIVED \$3,441,653 FROM PREVIOUS FY PENDING GRANTS, BRINGING THE AWARDED TOTAL FOR GRANTS IN FY11 TO \$7,631,547. TGEN'S SUCCESS RATE CURRENTLY RESTS AT 24 PERCENT OF TOTAL GRANTS SUBMITTED, PLACING THE INSTITUTE NEARLY FOUR PERCENT HIGHER THAN THE NATIONAL AVERAGE (NIH OVERALL SUCCESS RATE). A FY11 BIOMARKER GRANT ALLOWED TGEN TO ENHANCE OUR SCIENTIFIC INFRASTRUCTURE AND BUILD A COMPLETE BIOMARKER DEVELOPMENT PIPELINE, FROM THE IDENTIFICATION OF APPROPRIATE PATIENT POPULATIONS FOR CLINICAL STUDIES TO THE ACQUISITION, PROCESSING, AND QUALITY CONTROL OF BIOSPECIMENS AND FROM BIOMARKER DISCOVERY TO CLINICAL APPLICATION. BIOMARKERS - OBJECTIVE BIOLOGICAL INDICATORS OF AN INDIVIDUAL'S STATE OF HEALTH OR DISEASE - HAVE THE POTENTIAL TO REVOLUTIONIZE MEDICAL DIAGNOSIS AND PROGNOSIS THROUGH EARLY DISEASE DETECTION, THERAPY MONITORING, AND MATCHING THE RIGHT PATIENT WITH THE RIGHT DRUG, THE HALLMARK OF PERSONALIZED, PRECISION MEDICINE. YET, DESPITE THE MORE THAN 40,000 PUBLICATIONS PURPORTING AN ASSOCIATION OF BIOMARKERS TO SPECIFIC DISEASES, AND THE PROMINENT REFERENCE TO BIOMARKER USE IN FDA INITIATIVES TO OVERHAUL OUR HEALTH CARE SYSTEM, THE APPROVAL RATE FOR PROTEIN BIOMARKERS HAS BEEN LOW. FEWER THAN TWO DOZEN BIOMARKERS HAVE BEEN APPROVED BY THE FDA. THE REASONS FOR THE LOW ADOPTION RATE INCLUDE A HIGH FALSE MARKER DISCOVERY RATE, BUT PERHAPS MORE IMPORTANTLY, A LACK OF METHODOLOGIES FOR ANALYZING CANDIDATE BIOMARKERS IN LARGE NUMBERS OF CLINICAL SAMPLES IN A ROBUST, HIGH THROUGHPUT MANNER (SO CALLED BIOMARKER VERIFICATION) THAT MAKES VALIDATION FOR CLINICAL USE POSSIBLE. TGEN IS COMMITTED TO THE REALIZATION OF PERSONALIZED MEDICINE, ACKNOWLEDGING THE IMPORTANT CHALLENGES THAT MUST BE MET TO ENSURE ITS SUCCESS. HISTORICALLY, BIOMARKER DEVELOPMENT HAS BEEN HAMPERED BY A LACK OF STANDARDIZED TECHNOLOGIES AND METHODOLOGIES THAT ARE CRITICALLY NEEDED TO MORE EFFECTIVELY DISCOVER AND VALIDATE MARKERS THAT ARE INDICATIVE OF DISEASE CONDITIONS. LIKEWISE, SYSTEMATIC METHODS FOR CONSISTENT BIOSPECIMEN COLLECTION AND PROCESSING AS WELL AS INTEGRATION AND INTERPRETATION OF DATA IN A ROBUST, STATISTICALLY SIGNIFICANT MANNER AMONGST DIFFERENT LABORATORIES ARE DESPERATELY NEEDED TO APPROPRIATELY VALIDATE BIOMARKERS FOR CLINICAL USE. THE INFRASTRUCTURE DEVELOPED AT TGEN SPEAKS DIRECTLY TO THESE GAPS IN THE BIOMARKER DEVELOPMENT PIPELINE. TGEN HAS LEVERAGED FUNDS IN THIS AREA TO DEVELOP A COMPREHENSIVE AND SUSTAINABLE PROGRAM TO ENABLE ALL STAGES OF BIOMARKER DEVELOPMENT FROM DISCOVERY THROUGH VALIDATION. THE GRANT SUPPORTS SEVERAL TGEN-LED COLLABORATIONS WITH RESEARCH AND TECHNOLOGY DEVELOPMENT PARTNERS THROUGHOUT ARIZONA TO ADVANCE UNIQUE PIECES OF THE BIOMARKER DEVELOPMENT PIPELINE INCLUDING: - o TGEN ESTABLISHED THE MACROMOLECULAR ANALYSIS AND PROCESSING CENTER, A CENTRALIZED BIOREPOSITORY THAT APPLIES BEST PRACTICES FOR BIOSPECIMEN PROCUREMENT AND DNA, RNA, AND PROTEIN ISOLATION FOR DOWNSTREAM ANALYSIS. - o ROBOTIC AUTOMATION FOR BIOSPECIMEN PROCESSING - A COLLABORATION WITH DR. DEIDRE MELDRUM'S CENTER FOR BIOSIGNATURES DISCOVERY. AUTOMATION AT THE BIODESIGN INSTITUTE AT ASU TO AUTOMATE ALL THE TIME AND LABOR-INTENSIVE STEPS OF BIOSPECIMEN PROCESSING TO LIMIT SAMPLE TO SAMPLE VARIABILITY FOR LARGE-SCALE BIOMARKER VALIDATION STUDIES. - o DATA ANALYSIS AND INFORMATION MANAGEMENT - TGEN HAS DEVELOPED OR PURCHASED REQUISITE SYSTEMS TO STREAMLINE DATA ACQUISITION, ANALYSIS, AND STORAGE FOR GENOMIC AND PROTEOMIC STUDIES. THIS ANALYSIS INFRASTRUCTURE SUPPORTED BY THE FLINN FOUNDATION GRANT HAS BEEN LEVERAGED BY SEVERAL OF TGEN'S PERSONALIZED MEDICINE STUDIES, INCLUDING ONE THAT ATTEMPTS TO IDENTIFY GENOMIC AND PROTEOMIC BIOMARKERS THAT PREDICT WHICH CHEMOTHERAPY WILL BE MOST EFFECTIVE IN THE TREATMENT OF INDIVIDUAL PATIENTS WITH LUNG CANCER. IN TOTAL, FLINN SUPPORT HAS ALLOWED TGEN TO ENHANCE OUR SCIENTIFIC INFRASTRUCTURE AND BUILD A COMPLETE BIOMARKER DEVELOPMENT PIPELINE, FROM THE IDENTIFICATION OF APPROPRIATE PATIENT POPULATIONS FOR CLINICAL STUDIES TO THE ACQUISITION, PROCESSING, AND QUALITY CONTROL OF BIOSPECIMENS AND FROM BIOMARKER DISCOVERY TO CLINICAL APPLICATION. THE PROTEOMICS PIPELINE SUPPORTS THE INITIAL GOALS OF OUR FIRST PARTNERSHIP FOR PERSONALIZED MEDICINE DEMONSTRATION PROJECT IN LUNG CANCER, BUT MORE IMPORTANTLY, DEVELOPS THE REQUIRED INFRASTRUCTURE TO POSITION TGEN FAVORABLY FOR ATTRACTING ADDITIONAL PARTNERS TO DEVELOP DIAGNOSTIC BIOMARKERS FOR A MULTITUDE OF HUMAN DISEASES.

Identifier	Return Reference	Explanation
FY11 HIGHLIGHTS		1 TWO-YEAR GRANT FROM THE NATIONAL INSTITUTES OF HEALTH (NIH) TOTALING \$3 MILLION TO DR JOHANNA DISTEFANO TO STUDY THE PROGRESSION AND GENETIC ORIGINS OF NONALCOHOLIC FATTY LIVER DISEASE (NAFLD) 2 TWO-YEAR GRANT FROM THE MULTIPLE MYELOMA RESEARCH FOUNDATION (MMRF) TOTALING \$672,000 TO DR JOHN CARPTEN FOR WHOLE-TRANSCRIPTOME RNA SEQUENCING OF MULTIPLE MYELOMA TUMORS USING NEXT-GENERATION TECHNOLOGY 3 TWO-YEAR GRANT FROM THE MMRF TOTALING \$250,000 TO DR JONATHAN KEATS FOR A STUDY OF THE CONSEQUENCES OF LOSING THE GENE KDMSA/UTX, A TUMOR SUPPRESSOR IN MULTIPLE MYELOMA 4 TWO-YEAR GRANT FROM THE MMRF TOTALING \$249,999 TO DR JONATHAN KEATS TO CHARACTERIZE COMMERCIAL MYELOMA CELL LINES 5 THREE-YEAR GRANT FROM ARIZONA BIOMEDICAL RESEARCH COMMISSION TOTALING \$218,000 TO DR HAIYONG HAN TO EVALUATE COMPOUNDS IN CELL LINES TO VALIDATE THEIR ANTI-TUMOR POTENTIAL 6 ONE-YEAR GRANT FROM NIH TOTALING \$139,500 TO DR HOLLY YIN AND DR NATHALIE MEURICE TO DEVELOP TESTS FOR GENES RELATED TO SUBSTANCE ABUSE, ESPECIALLY TOBACCO SMOKING, AS WELL AS PARKINSON'S DISEASE 7 FIVE-YEAR GRANT FROM THE NATIONAL INSTITUTES OF HEALTH TOTALING \$775,899 TO DR DAVID CRAIG TO INVESTIGATE PHARMACOGENOMICS OF MOOD STABILIZER RESPONSE IN BIPOLAR DISORDER 8 FOUR-YEAR GRANT FROM THE NATIONAL INSTITUTES OF HEALTH TOTALING \$457,976 TO DR JOHN CARPTEN TO STUDY GENETIC RISK FACTORS IN AFRICAN AMERICAN COLORECTAL CANCER PATIENTS 9 TWO-YEAR GRANT FROM THE NATIONAL INSTITUTES OF HEALTH TOTALING \$184,881 TO DR JOHANNA DISTEFANO TO STUDY THE GENETIC DETERMINANTS OF TOTAL CHOLESTEROL LEVELS IN AMERICAN INDIANS 10 FIVE-YEAR GRANT FROM THE U S DEPARTMENT OF HEALTH AND HUMAN SERVICES TOTALING \$17 MILLION TO DR MICHAEL BITTNER TO SUPPORT THE DEVELOPMENT OF A GENE EXPRESSION-BASED BIOSIMULATOR TO MEASURE RADIATION 11 TWO-YEAR GRANT FROM THE U S DEPARTMENT OF HOMELAND SECURITY TOTALING \$11 MILLION TO DR PAUL KEIM TO STUDY HOW NEXT-GENERATION SEQUENCING TECHNIQUES COULD HELP DETECT RARE VARIANTS IN BACILLUS ANTHRACIS (ANTHRAX) CULTURES 12 TWO-YEAR GRANT FROM THE U S DEPARTMENT OF DEFENSE TOTALING \$1 MILLION TO DR LANCE PRICE TO INVESTIGATE - IN COLLABORATION WITH THE ARIZONA BURN CENTER - NOVEL TOOLS AND ANALYSIS TO MOLECULARLY CHARACTERIZE BURN WOUND MICROBIAL COLONIZATION AND THEIR EFFECTS ON HEALING, GRAFT REJECTION AND INFECTION 13 ONE-YEAR GRANT FROM THE U S DEPARTMENT OF HEALTH AND HUMAN SERVICES TOTALING \$297,000 TO PURCHASE NEXT GENERATION SEQUENCING EQUIPMENT 14 TWO-YEAR GRANT FROM THE NATIONAL INSTITUTES OF HEALTH TOTALING \$117,000 STUDY BACTERIAL AND FUNGAL ECOLOGY IN THE CHRONIC RHINOSINUSITIS MICROBIOME AS PART OF THE HUMAN MICROBIOME PROJECT, WHICH SEEKS TO ASSESS THE ASSOCIATIONS BETWEEN MICROBIOTA AND HUMAN HEALTH AND DISEASE ENTERPRISE EFFORTS AND COLLABORATION THE TECHNOLOGY TRANSFER OFFICE (TTO) FACILITATES AND ACCELERATES THE COMMERCIALIZATION OF TGEN'S SCIENTIFIC DISCOVERIES FOR THE BENEFIT OF HUMAN HEALTH BY - o IDENTIFYING, PATENTING AND LICENSING NEW TECHNOLOGY, - o FACILITATING ACCESS AND EXCHANGE OF RESEARCH MATERIALS, TECHNOLOGIES, AND DATA VIA MATERIAL TRANSFER AGREEMENTS (MTAS) OR CONFIDENTIAL DISCLOSURE AGREEMENTS (CDAS), - o NEGOTIATING COLLABORATIVE RESEARCH AGREEMENTS, AND - o ASSISTING IN THE FORMATION OF START-UP COMPANIES WHEN APPROPRIATE INVENTION DISCLOSURES TGEN SCIENTISTS WORK WITH THE OFFICE OF TECHNOLOGY TRANSFER (OTT) TO FILE INVENTION DISCLOSURES AS THE FIRST STEP TOWARD A POSSIBLE PATENT APPLICATION OR OTHER APPROPRIATE FORM OF INTELLECTUAL PROPERTY PROTECTION TGEN FILED 27 INVENTION DISCLOSURES IN FY11 BASED ON DISCOVERIES STEMMING FROM TGEN-LED RESEARCH, AND FILED 29 PROVISIONAL PATENT APPLICATIONS

Identifier	Return Reference	Explanation
COMMERCIALIZATION / SPIN OFFS		TGEN'S OFFICE OF BUSINESS DEVELOPMENT WORKS TO DEVELOP AN APPROPRIATE ADMINISTRATIVE STRUCTURE TO HANDLE COMMERCIALIZATION OF ITS INTELLECTUAL PROPERTY, AS WELL AS DEVELOP EFFECTIVE WAYS TO PARTNER WITH THE COMMERCIAL SECTOR FY11 ACTIVITIES INCLUDED AS MENTIONED IN THE INTRODUCTION, TGEN LICENSED ITS FIRST DRUG IN MAY 2011 ONCO-101 IS A UNIQUE COMPOUND THAT TARGETS CANCER TUMORS BY MODIFYING THE ACTIONS OF PROTEINS ONCO-101 MAY PROVE EFFECTIVE AGAINST OVARIAN AND ENDOMETRIAL CANCER ONCOHOLDINGS, IN TURN, HAS CONTRACTED WITH A TGEN SUBSIDIARY, SCOTTSDALE-BASED TGEN DRUG DEVELOPMENT (TD2), TO HELP GUIDE CONTINUED PRE-CLINICAL TESTING, AND EVENTUALLY MOVE ONCO-101 INTO FIRST IN-HUMAN CLINICAL TRIALS, WHERE IT COULD IMMEDIATELY HELP CANCER PATIENTS ANNAL SYSTEMS ACQUIRED MEDTRUST ONLINE LLC, A SPIN OUT OF TGEN IN 2008 THE COMBINED ENTERPRISE WILL PROVIDE A UNIQUE COMBINATION OF A RICH DATABASE OF INFORMATION REGARDING ONCOLOGY-FOCUSED DRUGS, WITH A UNIQUE ENTERPRISE SOLUTION INCORPORATING BOTH HIGH SPEED AND HIGH CAPACITY EXCHANGE OF INFORMATION TGEN'S PROTEOMIC CENTER (SUPPORTED BY THE FLINN FOUNDATION) WAS ONE OF TWELVE SITES SELECTED AS A "CENTER OF INNOVATION" BY THE WATER'S CORPORATION, A GLOBAL LEADER IN THE DEVELOPMENT AND MANUFACTURING OF INSTRUMENTATION FOR PROTEOMICS ANALYSIS IN ADDITION TO INSTRUMENTATION ALREADY PLACED AT TGEN FOR EVALUATION, TGEN WILL HAVE EARLY ACCESS TO NEW PRODUCTS AND PLAY A VITAL ROLE IN THE ASSESSMENT AND DEVELOPMENT OF NEW PROTEOMICS TECHNOLOGY TGEN PARTICIPATED IN TWO SMALL BUSINESS INNOVATION RESEARCH (SBIR) GRANT APPLICATIONS o BIOMATRICA OF SAN DIEGO, CA, A WELL-ESTABLISHED BIOSTABILITY CORPORATION, APPLIED FOR AN SBIR GRANT WITH TGEN AND THE VAN ANDEL RESEARCH INSTITUTE TO DEVELOP A ROOM-TEMPERATURE ENVIRONMENTALLY SUSTAINABLE SOLUTION WITH THE POTENTIAL TO REVOLUTIONIZE BIOSPECIMEN FIXATION, TRANSPORTATION AND STORAGE THIS NEW TECHNOLOGY CAN BE SEAMLESSLY INTEGRATED INTO EXISTING COLLECTION AND PROCESSING PLATFORMS FOR PATIENTS, IT CAN POTENTIALLY PROVIDE THE BASIS FOR MORE COMPREHENSIVE TUMOR MOLECULAR PROFILING AND ULTIMATELY, APPLIED PERSONALIZED THERAPIES o TGEN AND 360 VANTAGE, LLC (CHANDLER, AZ) APPLIED FOR AN SBIR GRANT TO COMMERCIALIZE A UNIQUE PATENT PENDING GENOMIC DATA COMPRESSION AND INDEXING TOOL DEVELOPED BY ONE OF TGEN'S BIOINFORMATICIANS THIS NEW TOOL REDUCES THE SPACE REQUIRED TO STORE GENOMIC DATA BY UP TO 60% AND ORGANIZES THIS INFORMATION IN SUCH A WAY AS TO ALLOW PARALLEL PROCESSING OF THE DATA THAT SIGNIFICANTLY INCREASES THE SPEED OF PROCESSING THESE VERY LARGE DATA FILES 360 VANTAGE IS A CLOUD COMPUTING SOLUTION PROVIDER AND IS WORKING WITH TGEN TO DEVELOP A COMMERCIALLY AVAILABLE VERSION OF THIS TOOL THAT WOULD BE DEPLOYED IN A CLOUD ENVIRONMENT PATHOGENE (FLAGSTAFF, AZ) PARTNERED WITH TGEN AND NACET (NORTHERN ARIZONA CENTER FOR EMERGING TECHNOLOGIES) TO SUBMIT A GRANT APPLICATION IN JANUARY 2012 FOR AN ARIZONA COMMERCE AUTHORITY RURAL DEVELOPMENT GRANT TO DEVELOP A VALLEY FEVER TESTING LABORATORY BASED ON IP DEVELOPED AT TGEN AND LICENSED TO PATHOGENE THE PREPARATORY WORK FOR THIS GRANT WAS DONE IN THE LAST QUARTER OF 2011 THE AWARD NOTICE IS DUE FEBRUARY 15TH, 2012 IN COLLABORATION WITH PRICEWATERHOUSECOOPERS (PWC), TGEN CONDUCTED A SIX MONTH MARKET ANALYSIS AND DEVELOPMENT OF A GO TO MARKET PLAN FOR A CLINICAL BIOINFORMATICS SOLUTION TGEN IS PLANNING TO LAUNCH A "PROOF OF CONCEPT" COMMERCIAL PROTOTYPE OF THIS SOLUTION THROUGH TGEN ACCELERATORS IN Q1 OF 2012 THE MARKET ANALYSIS WAS DRIVEN BY THE NUMEROUS REQUESTS FROM HIGHLY CREDIBLE INDUSTRY LEADERS PURSUING SOLUTIONS FOR CLINICAL BIOINFORMATICS FOR A VARIETY OF APPLICATIONS TGEN CONTINUES TO ACTIVELY EXPLORE THESE OPPORTUNITIES WHILE REFINING THE BUSINESS MODEL AND VALIDATING THE PLAN'S ASSUMPTIONS THROUGH INTERNAL "PROOF OF CONCEPT" ACTIVITIES TGEN, US ONCOLOGY, AND LIFE TECHNOLOGIES CONTINUED THEIR GROUNDBREAKING COLLABORATION ON A TRIPLE NEGATIVE BREAST CANCER PILOT CLINICAL TRIAL PROJECT TO PROVIDE DEFINITIVE PROOF OF CONCEPT THAT NEXT GENERATION SEQUENCING TECHNOLOGY COULD SUPPORT PRECISION MEDICAL GENOMICS APPLICATIONS DUE TO THE COMPLEXITIES OF COMBINING COMPONENTS OF A CLINICAL TRIAL WITH PATIENT DATA ANALYSIS AND INTERPRETATION THIS STUDY HAS SPANNED SEVERAL YEARS, WITH THE BULK OF THE WORK BEING DONE IN FY11 THIS PILOT TRIAL PROJECT HAS PROVIDED A VALUABLE OPPORTUNITY TO LEVERAGE TGEN'S UNIQUE CLINICAL EXPERIENCE TO GUIDE THE DEVELOPMENT OF A MORE COMPLETE AND COMPREHENSIVE GENOMICS SOLUTION THAT CAN POTENTIALLY SUPPORT CLINICAL DECISION MAKING FOR THE TREATMENT OF THIS DISEASE

Identifier	Return Reference	Explanation
CONTRACTS AND COLLABORATIONS		TGEN SIGNED A TOTAL OF 394 AGREEMENTS IN FY11, BROKEN DOWN AS FOLLOWS 1 TGEN SIGNED 70 CONFIDENTIAL DISCLOSURE AGREEMENTS (CDA) IN FY11 CDAS CREATE A CONFIDENTIAL RELATIONSHIP BETWEEN TGEN AND A HOST OF POTENTIAL COLLABORATORS/PARTNERS WHILE NOT ALL CDAS RESULT IN A FORMAL COLLABORATION OR PARTNERSHIP, THEY DO PROVIDE A NUMBER OF INSTITUTES AND COMPANIES (LOCALLY, NATIONALLY AND INTERNATIONALLY) A GREATER PICTURE OF TGEN'S CAPABILITIES AND REFLECT POSITIVELY AS A WHOLE ON ARIZONA'S BIOMEDICAL SCIENCE PURSUITS 2 TGEN SIGNED 83 MATERIAL TRANSFER AGREEMENTS (MTA) IN FY11 MTAS FORM THE BACKBONE OF NUMEROUS TGEN RESEARCH COLLABORATIONS AS SHARED MATERIALS INCLUDE REAGENTS, CELL LINES, SOFTWARE AND MORE 3 TGEN SIGNED 67 RESEARCH COLLABORATIONS (MANY WITH LOCAL AND STATE AFFILIATIONS), INCLUDING AGREEMENTS THAT FURTHER RESEARCH INTO A HOST OF DISEASES, INCLUDING BRAIN CANCER, MELANOMA, ALZHEIMER'S AND AUTISM 4 ADDITIONALLY, TGEN SIGNED AN ADDITIONAL 170 AGREEMENTS CONSISTING OF CONSULTING AND PROFESSIONAL SERVICES AGREEMENTS, COMMERCIALIZATION LICENSES, MEMORANDUMS OF UNDERSTANDING, LEASES, AND EVALUATION AGREEMENTS

Identifier	Return Reference	Explanation
FY11 SELECT HIGHLIGHTS		1 UNIVERSITY HOSPITAL OF BASEL - "CLONAL PROFILING OF TUMORS OF UNKNOWN ORIGIN" (DRS BAR RETT & BUBENDORF) 2 HILLS PET NUTRITION RESEARCH - "CONTINUATION OF CANINE AND FELINE PHE NOTYPIC DATA ANALYSIS AND ADDITIONAL GENOTYPING" (DR HUENTELMAN) 3 ILLUMINA AMENDMENT ON E TO UMBRELLA AGREEMENT - EXTENDS TERM THROUGH 6/2/13 4 M D ANDERSON CANCER CENTER AMEND MENT THREE TO IVY CONSORTIUM RESEARCH COLLABORATION CONTRACT - MODIFIES STATEMENT OF WORK AND SITE BUDGET 5 UNIVERSITY OF TENNESSEE RESEARCH COLLABORATION AGREEMENT - UMBRELLA AGR EEMENT COVERING PROJECTS RELATED TO THE COMPARATIVE ONCOLOGY TRIAL CONSORTIUM (COTC) 6 CA THOLIC HEALTHCARE WEST RESEARCH PLAN 06 - "EVALUATION OF RNA ISOLATION METHODS FROM HUMAN CSF" (DRS BOMPRESZI & JENSEN) 7 VAN ANDEL RESEARCH PLAN - "DEVELOPMENT OF GENOMIC-BASED PREDICTORS OF DRUG 8 "RESPONSE IN PANCREATIC CANCER" (DRS POSNER & WEBB) 9 VAN ANDEL-OR THOPAEDIC ASSOCIATES OF MICHIGAN RESEARCH COLLABORATION AGREEMENT - FOR GENOME-WIDE ASSOCI ATION STUDY OF BONE-GROWTH GERMLINE GENETIC MARKERS (DRS WILLIAMS, CRAIG & JONES) 10 UNI VERSITY OF MINNESOTA RESEARCH COLLABORATION AGREEMENT - UMBRELLA AGREEMENT COVERING PROJEC TS RELATED TO THE COMPARATIVE ONCOLOGY TRIAL CONSORTIUM (COTC) 11 SCOTTSDALE HEALTHCARE R ESEARCH PLAN 05 - "MOLECULAR ANALYSIS OF ENDOCRINE TUMORS" (DRS BUSSEY & DEMEURE) 12 UNI VERSITY OF GEORGIA RESEARCH FOUNDATION INC RESEARCH COLLABORATION AGREEMENT - UMBRELLA AG REEMENT COVERING PROJECTS RELATED TO THE COMPARATIVE ONCOLOGY TRIAL CONSORTIUM (COTC) 13 MULTIPLE MYELOMA RESEARCH CONSORTIUM AMENDMENT 3 TO RESEARCH AGREEMENT - EXTENDS TERM THRO UGH DECEMBER 31, 2011, AND AMENDS MILESTONE PAYMENTS TO BROAD 14 PURDUE UNIVERSITY RESEAR CH COLLABORATION AGREEMENT - UMBRELLA AGREEMENT COVERING PROJECTS RELATED TO THE COMPARATI VE ONCOLOGY TRIAL CONSORTIUM (COTC) 15 ASTRAZENECA AMENDMENT 1 TO RESEARCH PLAN AZ02 - EX TENDS TERM THROUGH JULY 11, 2012 16 MICHIGAN STATE UNIVERSITY RESEARCH COLLABORATION AGRE EMENT - UMBRELLA AGREEMENT COVERING PROJECTS RELATED TO THE COMPARATIVE ONCOLOGY TRIAL CON SORTIUM (COTC) 17 UNIVERSITY OF LUXEMBOURG RESEARCH COLLABORATION AGREEMENT - PROJECT ENT ITLED "GENOMIC ANALYSIS OF WASTEWATER LIPID - ACCUMULATING BACTERIAL CONSORTIA" (DRS KEIM/PRICE & WILMES) 18 TUFTS UNIVERSITY - UMBRELLA AGREEMENT COVERING PROJECTS RELATED TO TH E COMPARATIVE ONCOLOGY TRIAL CONSORTIUM (COTC) 19 MAYO STATEMENT OF WORK #4 - "EPIGENETIC S OF DIET AND NEURODEGENERATION" (DRS DUNCKLEY & DRIVER-DUNCKLEY/CASELLI/ADLER) 20 CASE WESTERN RESERVE UNIVERSITY RESEARCH COLLABORATION AGREEMENT - UMBRELLA AGREEMENT COVERING FUTURE JOINT RESEARCH PROJECTS CONCERNING DISCOVERY OF BIOMARKERS IN BRAIN TUMORS (DR BER ENS) 21 UNIVERSITY OF CALIFORNIA DAVIS RESEARCH COLLABORATION AGREEMENT - UMBRELLA AGREEM ENT COVERING PROJECTS RELATED TO THE COMPARATIVE ONCOLOGY TRIAL CONSORTIUM (COTC) 22 MAYO CLINIC AMENDMENT TO MASTER RESEARCH AGREEMENT - ADDS THE "SEED GRANT PROGRAM' PROVISION 23 MAYO CLINIC THIRD AMENDMENT TO RESEARCH COLLABORATION CONTRACT FOR IVY CONSORTIUM - EX TENDS TERM THROUGH 1/31/12 (DR BERENS) 24 PATHOGENE FIRST AMENDMENT TO RESEARCH PLAN 04 ("CANINE VALLEY FEVER MOLECULAR DIAGNOSIS STUDY") - CHANGES TITLE OF PROJECT TO "ASSAY EV ALUATION BY EXTERNAL COMPANIES", AMENDS TERM AND COSTS OF STUDY , INCORPORATES TECHNICAL PL AN (DR PRICE) 25 SCOTTSDALE HEALTHCARE FIRST AMENDMENT TO RESEARCH PLAN 01 ("DIAGNOSTIC MIRNAS FOR PANCREATIC CANCER FROM BLOOD SAMPLES") - ADDS PCRT ACKNOWLEDGEMENT OF MATERIAL PROVISION TO STUDY (DR WEISS) 26 UNIVERSITY OF TENNESSEE RESEARCH COLLABORATION AGREEM ENT - UMBRELLA JOINT AGREEMENT COVERING FUTURE RESEARCH PROJECTS 27 COLORADO STATE UNIVE RSITY RESEARCH COLLABORATION AGREEMENT - UMBRELLA AGREEMENT COVERING PROJECTS RELATED TO T HE COMPARATIVE ONCOLOGY TRIAL CONSORTIUM (COTC) 28 UNIVERSITY OF WISCONSIN - MADISON RES EARCH COLLABORATION AGREEMENT - UMBRELLA AGREEMENT COVERING PROJECTS RELATED TO THE COMPAR ATIVE ONCOLOGY TRIAL CONSORTIUM (COTC) 29 CATHOLIC HEALTHCARE WEST RESEARCH PLAN 04 - "E VALUATION OF RNA ISOLATION METHODS FROM HUMAN CSF" (DRS JENSEN & BOMPRESZI) 30 SCRIPPS RESEARCH RCA & RESEARCH PLAN - "GENOMIC CHARACTERIZATION OF PRIMARY , LOCALLY RECURRENT AND METASTATIC DISEASE FROM A PATIENT WITH METAPLASTIC INFLAMMATORY BREAST CANCER " (DRS HEA THER CUNLIFFE & BRUNHILDE FELDING-HABERMANN) 31 CATHOLIC HEALTHCARE WEST RESEARCH PLAN 0 5 - "MEASURE INTRA-TUMOR PH IN BOTH PRIMARY XENOGRAFT AND TRANSGENIC MOUSE MODELS " (DRS CLIFF WHATCOTT & GREGORY TURNER) 32 HILLS PET NUTRITION RESEARCH PLAN RP01 - "CANINE GEN OTYPING & DEVELOPMENT OF A PHENOTYPIC DATA PRIORITY LIST " (DR MATTHEW HUENTELMAN) 33 H ILLS PET NUTRITION RESEARCH PLAN RP02 - "FELINE GENOTYPING & DEVELOPMENT OF A PHENOTYPIC D ATA PRIORITY LIST " (DR MATTHEW HUENTELMAN) 34 ONCOHOLDINGS INC - TD2 RESEARCH COLLABO RATION AGREEMENT - FOR FUTURE COLLABORATIONS USING TD2 AS PREFERRED PROVIDER FOR PRECLINICAL, CLINICAL AND REGULATORY SERVICES 35 PATHOGEN

Identifier	Return Reference	Explanation
FY11 SELECT HIGHLIGHTS		E AMENDMENT 1 TO MASTER RESEARCH AGREEMENT - EXTENDS TERM THROUGH NOV 14, 2012 36 MAYO CLINIC STATEMENT OF WORK 01 - "A PILOT STUDY EXAMINING THE UTILITY OF WHOLE GENOME TUMOR SEQUENCING (WGS) AND WHOLE GENOME EXPRESSION PROFILE TO FIND POTENTIAL TARGETS FOR THERAPY IN PATIENTS WITH ADVANCED CANCER" (DRS RAMESH RAMANATHAN & KEITH STEWART) 37 CHILDREN'S HOSPITAL LOS ANGELES AMEND TO COLLABORATION AGREEMENT - EXTENDS TERM THROUGH JAN 10, 2012 38 PHOENIX CHILDREN'S HOSPITAL RESEARCH COLLABORATION AGREEMENT - UMBRELLA JOINT RESEARCH AGREEMENT COVERING FUTURE PROJECTS 39 ASTRAZENECA RESEARCH PLAN AZ02 - "DETECTION OF STRUCTURAL REARRANGEMENTS, INCLUDING GENE FUSION CANDIDATES IN BREAST CARCINOMA GENOMES " 40 BANNER RESEARCH INSTITUTE RESEARCH PLAN 01 - "COMPARE CHANGES IN RNA EXPRESSION AS BIOMARKERS FOR ALZHEIMER'S DISEASE AND PARKINSON'S DISEASE, A COMPARISON OF CSF AND BLOOD " 41 ADAMAS AMENDMENT 9 TO COLLABORATION AGREEMENT - REVISES WORK-PLAN AND EXTENDS TERM THROUGH JAN 31, 2011 42 ASTRAZENECA AMENDMENT 1 TO RESEARCH AGREEMENT - EXTENDS TERM THROUGH DEC 12, 2012

Identifier	Return Reference	Explanation
JOB CREATION / ROI		20 NEW FULL-TIME EQUIVALENT POSITIONS WERE CREATED IN FY 11 WITH SALARIES AND BENEFITS TOTALING APPROXIMATELY \$1,330,161. STUDENT SALARIES WERE JUST OVER \$374,000, BRINGING THE OVERALL TOTAL TO \$1,704,161. TGEN STAFF TOTALED 261, OF WHICH 86 PERCENT HOLD A COLLEGE DEGREE (49 PERCENT HOLD AN ADVANCED DEGREE). FY 11 POSITIONS FILLED INCLUDE ADMINISTRATIVE ASSISTANT, ASSOCIATE PROFESSOR, BIOINFORMATICIAN, ASSOCIATE CLINICAL DATA COORDINATOR, KNOWLEDGE COMPUTING ARCHITECT, JR. PROJECT MANAGER, POST-DOC FELLOW, RESEARCH ASSOCIATE, RESEARCH ASSOCIATE II, STAFF SCIENTIST, VICE PRESIDENT. TGEN FOUNDATION WE HAVE STRESSED IN THE PAST THAT INTERNSHIPS SERVE AS A PIPELINE TO TGEN IN TERMS OF FUTURE RECRUITMENT AND SUPPORT OF THE STATEWIDE INITIATIVE TOWARDS EDUCATION AND DEVELOPMENT FOR THE STUDENTS IN THE LIFE SCIENCES. ADDITIONALLY, TGEN IS A PROVING GROUND WHERE TALENTED UNDERGRADUATES GAIN VALUABLE EXPERIENCE PRIOR RETURNING TO EARN ADVANCED DEGREES IN THE BIOMEDICAL SCIENCES. IN FY 11, 9 EMPLOYEES RETURNED TO UNIVERSITY TO FURTHER THEIR BIOMEDICAL EDUCATION, WITH 4 OF THE 9 CHOOSING AN ARIZONA-BASED UNIVERSITY. RETURN ON STATE INVESTMENT IN LATE 2011, IN THE THIRD SUCH STUDY FOR TGEN, TRIPP UMBACH CONCLUDED WHEN THE IMPACT OF TGEN-GENERATED BUSINESS SPIN-OFFS AND COMMERCIALIZATION ARE INCLUDED, TGEN PRODUCED \$25.04 FOR EVERY \$1 INVESTED BY THE STATE OF ARIZONA, SUPPORTED 1,124 JOBS, GENERATED \$10.1 MILLION IN STATE TAX REVENUES, AND PRODUCED \$137.7 MILLION IN TOTAL ANNUAL ECONOMIC IMPACT ON ARIZONA. TRIPP UMBACH PREDICTS SIGNIFICANT CONTINUED GROWTH IN THE FUTURE. EDUCATION AND PUBLIC OUTREACH INTERNSHIPS. TGEN, THROUGH ITS EDUCATION AND OUTREACH PROGRAMS, SEEKS TO INCREASE THE WORKING KNOWLEDGE OF GENOMICS WITHIN THE COMMUNITY AT LARGE AND HELP EDUCATE, TRAIN, AND INSPIRE THE NEXT GENERATION OF RESEARCHERS AND PHYSICIANS. THE MAJOR PROGRAMMATIC FOCUS OF TGEN'S EDUCATION EFFORTS CENTERS ON THE HELIOS SCHOLARS PROGRAM AT TGEN, AN ANNUAL SUMMER INTERNSHIP PROGRAM THAT PAIRS A STUDENT WITH A TGEN SCIENTIST/MENTOR THAT PROVIDES HANDS-ON LABORATORY TRAINING. TGEN ALSO OFFERS AN ACADEMIC YEAR INTERNSHIP PROGRAM, PROVIDING A LIMITED NUMBER OF VOLUNTEER INTERNSHIP POSITIONS DURING THE ACADEMIC YEAR, BASED ON THE NEEDS AND PROJECTED WORKLOAD OF THE HOST LABORATORIES. EFFORTS ARE CURRENTLY UNDERWAY TO ESTABLISH A FORMAL ACADEMIC YEAR INTERNSHIP PROGRAM. BY ALL ACCOUNTS, 2011 WAS A SUCCESSFUL YEAR WITH 45 BIOSCIENCE STUDENTS COMPLETING THE 2011 HELIOS SCHOLARS PROGRAM AT TGEN, AND 48 NON-HELIOS STUDENTS CONDUCTING INTERNSHIPS - SCIENTIFIC AND ADMINISTRATIVE - IN A NUMBER OF TGEN LABS AND DEPARTMENTS. WHILE NUMEROUS SUMMER JOBS OFFER STUDENTS THE OPPORTUNITY TO EARN MONEY, TGEN INTERNSHIPS PROVIDE AN EXPERIENTIAL LEARNING OPPORTUNITY FOR STUDENTS TO BUILD ON THEIR ACADEMIC STUDIES. UNDER THE GUIDANCE OF EXPERIENCED MENTORS, AN ACTIVE GROUP OF LIKE-MINDED STUDENTS EXPLORE AND LEARN FIRST HAND TECHNIQUES AND PROCESSES THAT EXPOSE THEM TO THE LATEST IN GENOMIC RESEARCH. THIS TRAINING OFTEN SOLIDIFIES A STUDENT'S CAREER CHOICE AND, IN MANY WAYS, BECOMES THE SPRINGBOARD TO THEIR FUTURE IN THE BIOMEDICAL SCIENCES. TWENTY-SEVEN FEMALES AND 18 MALES COMPRISED THE HELIOS SCHOLARS, BROKEN DOWN AS FOLLOWS: 15 PERCENT HIGH SCHOOL, 76 PERCENT UNDERGRADUATE, AND 9 PERCENT GRADUATE/MEDICAL SCHOOL. TEACHER TRAINING PROGRAM. IN FY 11, TGEN COMPLETED ITS FOURTH YEAR OF A 5-YEAR TRAINING AWARD IN COLLABORATION WITH NORTHERN ARIZONA UNIVERSITY TO CONDUCT A SUMMER GENOMICS WORKSHOP FOR TEACHERS AND GRADUATE STUDENTS AS PART OF AN NSF GRANT CALLED BIOTECHNOLOGY INTEGRATION OPPORTUNITIES FOR TEACHER EDUCATION AND CONTENT (BIOTEC). THIS GRANT PARTNERS THE COLLEGE OF ENGINEERING AND NATURAL SCIENCES, THE COLLEGE OF EDUCATION AT NORTHERN ARIZONA UNIVERSITY, AND TGEN IN ORDER TO ENHANCE INQUIRY-BASED SCIENCE TEACHING IN GRADES 5, 7, AND 9 WHILE EXPANDING THE INTERDISCIPLINARY PREPARATION OF GRADUATE STUDENTS IN BIOTECHNOLOGY. THE WORKSHOP IS DESIGNED TO UPDATE TEACHERS AND FELLOWS ON GENOMIC SCIENCE, THE CONTINUING EFFORT TO FIND THE GENETIC BASIS OF VARIOUS DISEASES AND DISORDERS, AND TO PRESENT CURRENT TOPICS ON THE ETHICAL, LEGAL, AND SOCIAL IMPLICATIONS OF GENOMICS. CAREERS AND ESSENTIAL RESEARCH SKILLS WILL BE EMPHASIZED DURING THE PROGRAM. CULMINATING ACTIVITY: TEACHERS WILL LEARN TO INCORPORATE ALL OF THIS INFORMATION IN THE BIOSCIENCES INTO THEIR CLASSROOMS. EDUCATIONAL AND PUBLIC TOURS. TGEN VALUES THE OPPORTUNITY TO SHARE ITS STATE-OF-THE-ART RESEARCH FACILITY WITH THE COMMUNITY THROUGH PUBLIC TOURS OF TGEN. THE COMMUNITY'S INTEREST IN TOURS CONTINUES TO GROW. IN FY 11, TGEN HOSTED NUMEROUS PUBLIC TOURS FOR A DIVERSE RANGE OF COMMUNITY MEMBERS AND ORGANIZATIONS (TOTALING NEARLY 500 IN NUMBER), AS WELL AS SENT REPRESENTATIVES INTO THE COMMUNITY TO PRESENT AT FUNCTIONS, CAREER AND EDUCATIONAL FAIRS. TOUR REQUESTS MAY BE SUBMITTED VIA THE WEBSITE AT HTTP://WWW.TGEN.ORG/EDUCATION/TOUR_REQUEST.CFM

Identifier	Return Reference	Explanation
STIMULATING GROWTH OF ARIZONA'S LIFE SCIENCE INDUSTRIES		AN IMPORTANT FACTOR IN CONTINUING TGEN'S SUCCESS IS COMMUNICATION WITH VARIOUS STAKEHOLDERS AND THE BROADER ARIZONA COMMUNITY TOWARD THAT GOAL, TGEN SR LEADERSHIP PARTICIPATES IN A MYRIAD OF COMMUNITY-RELATED ACTIVITIES THROUGH PRESENTATIONS AT REGIONAL MEETINGS AND AS A MEMBER OR PARTICIPANT OF VARIOUS COMMITTEES AND GROUPS, INCLUDING THE ARIZONA ALZHEIMER'S CONSORTIUM BOARD, ARIZONA BIOSCIENCE ROADMAP STEERING COMMITTEE AND ARIZONA BIOSCIENCE ROADMAP EDUCATION & WORKFORCE DEVELOPMENT COMMITTEE, ARIZONA TECHNOLOGY COUNCIL, GREATER PHOENIX LEADERSHIP, NSF STEP GRANT ADVISORY BOARD- FOR ESTRELLA MOUNTAIN CC, AND A MEMBER OF ARIZONA SCIENCE CENTER PATHWAYS TO DISCOVERY GRANT (NOW IN YEAR 3) MEDIA TGEN REMAINS ACTIVE IN PURSUING POSITIVE EARNED MEDIA EXPOSURE FOR THE INSTITUTE'S RESEARCH AND PHILANTHROPIC ACTIVITIES MEDIA EXPOSURE RAISES AWARENESS AND BRINGS ADDED CREDIBILITY TO THE INSTITUTE AND THE STATE IN TOTAL, TGEN RECEIVED GREATER THAN 1,100 MEDIA MENTIONS IN FY 11 IN VARIOUS TRADE AND PUBLIC MEDIA LOCALLY, NATIONALLY AND INTERNATIONALLY WHILE CITING TGEN SPECIFICALLY, THESE ARTICLES AND NEWS BRIEFS HELP BUILD A GREATER PRESENCE FOR THE CONTINUOUSLY EXPANDING BIOMEDICAL SCIENCE INITIATIVES OCCURRING IN ARIZONA MEDIA OUTLETS INCLUDE USA TODAY ORLANDO SENTINEL THE HOUSTON CHRONICLE THE ARIZONA REPUBLIC PHOENIX BUSINESS JOURNAL ARIZONA BUSINESS GAZETTE ARIZONA DAILY STAR JEWISH NEWS OF GREATER PHOENIX GRAND RAPIDS PRESS PLAIN DEALER (CLEVELAND) UPI NATIONAL PUBLIC RADIO NEW YORK TIMES WALL STREET JOURNAL LOS ANGELES TIMES LA WEEKLY REUTERS TIME MAGAZINE BOSTON GLOBE NEWSDAY AGENCE FRANCE PRESSE WIRED MAGAZINE CNN CNN INTERNATIONAL ONLINE TGEN'S ONLINE PRESENCE CONTINUES TO INCREASE ON AN ANNUAL BASIS WITH TWO ACTIVE SITES (TGEN AND THE TGEN FOUNDATION) MORE THAN 1.5 MILLION PAGE VIEWS WERE RECORDED IN FY 11 THE WEBSITE SERVES AS A PORTAL TO ALLOW ARIZONANS - AND OTHERS WORLDWIDE- TO LEARN ABOUT THE RESEARCH AND DISCOVERIES COMING OUT OF TGEN LABS ADDITIONALLY, THE TGEN FOUNDATION WEB PAGES ALLOW SUPPORTERS TO CREATE MEMORIALS AND FUNDRAISING PAGES IN SUPPORT OF TGEN'S EFFORTS TO DEVELOP IMPROVED DIAGNOSTIC TOOLS AND NEW THERAPEUTICS THAT TARGET A HOST OF DISEASES IN TERMS OF SOCIAL MEDIA, TGEN'S FACEBOOK AND TWITTER AUDIENCES ARE GROWING AND PROVIDE A FURTHER OPPORTUNITY TO COMMUNICATE WITH NUMEROUS CONSTITUENCIES THROUGH EVER-INCREASING MEDIUMS

Identifier	Return Reference	Explanation
BUSINESS AND FAMILY RELATIONSHIPS	FORM 990, PART VI, LINE 2	DANIEL VON HOFF AND EDWARD SUH HAVE A BUSINESS RELATIONSHIP JEFFREY TRENT, DANIEL VON HOFF AND EDWARD SUH HAVE A BUSINESS RELATIONSHIP ROBERT BULLA AND WILLIAM POST HAVE A BUSINESS RELATIONSHIP

Identifier	Return Reference	Explanation
GOVERNANCE STRUCTURE	FORM 990, PART VI, LINES 6, 7A & 7B	LINE 6 - THE SOLE CORPORATE MEMBER OF TGEN IS VAN ANDEL RESEARCH INSTITUTE (VARI), A MICHIGAN CHARITABLE TRUST LINE 7A - VARI, AS THE SOLE MEMBER OF TGEN, APPOINTS ELECTED DIRECTORS TO TGEN'S BOARD OF DIRECTORS FROM A LIST OF INDIVIDUALS PRESENTED BY THE NOMINATING COMMITTEE LINE 7B - VARI, AS THE SOLE MEMBER OF TGEN, RETAINS CERTAIN APPROVAL RIGHTS AS OUTLINED IN THE BYLAWS Effective December 1, 2009, the Institute entered into an alliance and affiliation agreement (the Affiliation Agreement) with the Van Andel Research Institute (VARI), a Michigan charitable trust exempt from tax under Section 501(c)(3) of the Internal Revenue Code The Institute changed from a director-based, nonprofit organization to a member-based, nonprofit organization, whereby VARI became the sole member of the Institute VARI agreed to supplement the Institute's funding efforts by providing \$10 0 million per year, for three consecutive years, in unrestricted support SUBSEQUENT TO THE FY11 TAX YEAR END AND Effective March 12, 2012, TGen and VARI agreed to terminate their Affiliation Agreement, and TGen converted from a member-based, Arizona nonprofit corporation to a director-based, Arizona nonprofit corporation, whereby VARI is no longer the sole member of TGen

Identifier	Return Reference	Explanation
PROCESS USED BY MANAGEMENT AND/OR GOVERNING BODY TO REVIEW 990	FORM 990, PART VI, LINE 11	THE FORM 990 IS PREPARED BY AN OUTSIDE ACCOUNTING FIRM BASED ON INFORMATION PROVIDED BY THE FINANCE DEPARTMENT THE 990 IS THEN REVIEWED BY THE FINANCE DEPARTMENT AND OTHER MEMBERS OF MANAGEMENT THE FORM 990 IS POSTED ON THE BOARD WEBSITE PRIOR TO FILING WITH THE IRS

Identifier	Return Reference	Explanation
PROCESS USED TO MONITOR TRANSACTIONS FOR CONFLICTS OF INTEREST	FORM 990, PART VI, LINE 12C	TGEN ISSUES A CONFLICT OF INTEREST QUESTIONNAIRE ON AN ANNUAL BASIS TO ALL DIRECTOR LEVEL POSITIONS AND ABOVE IN ADDITION TO ANY KEY EMPLOYEES DESIGNATED BY THE CHIEF OPERATING OFFICER THE QUESTIONNAIRES ARE REVIEWED BY THE CHIEF FINANCIAL OFFICER THOSE EMPLOYEES WITH CONFLICTS ARE SENT FOR FURTHER REVIEW TO THE CHIEF OPERATING OFFICER TO ENSURE A PLAN IS SET FORTH UPDATES TO THE LIST ARE HANDLED ON AN AS-NEEDED BASIS BASED ON CONTRACT REVIEWS AND EMPLOYEE INFORMATION

Identifier	Return Reference	Explanation
PROCESS USED TO DETERMINE COMPENSATION	FORM 990, PART VI, LINES 15A AND 15B	TGEN'S GOVERNANCE AND EXECUTIVE COMPENSATION COMMITTEE WILL ACT IN AN "ADVICE AND CONSENT" CAPACITY REVIEWING THE RECOMMENDATIONS FOR THE PRESIDENT AND SCIENTIFIC DIRECTOR REGARDING THE COMPENSATION OF DISQUALIFIED PERSONS AND FORWARDING FINAL RECOMMENDATIONS TO THE FULL BOARD FOR APPROVAL. DISQUALIFIED PERSONS (EXCEPT FOR THE PRESIDENT AND SCIENTIFIC DIRECTOR) WILL NOT BE PRESENT FOR, OR PARTICIPATE IN, COMMITTEE DELIBERATIONS CONCERNING THEIR COMPENSATION (OTHER THAN TO ANSWER QUESTIONS). THE PRESIDENT AND SCIENTIFIC DIRECTOR WILL PARTICIPATE IN THE DELIBERATIONS CONCERNING THE COMPENSATION OF DIRECT REPORTS. DURING THE DECISION MAKING PROCESS, THE COMMITTEE WILL ADHERE TO THE EXECUTIVE COMPENSATION PHILOSOPHY. THE COMMITTEE IS AUTHORIZED (AND PROVIDED WITH SUFFICIENT FUNDING) TO ANNUALLY ENGAGE OUTSIDE INDEPENDENT COMPENSATION AND LEGAL ADVISORS, WHEN DEEMED NECESSARY AND ADVISABLE. THE COMMITTEE WILL COMPLY WITH THE "REBUTTABLE PRESUMPTION OF REASONABLENESS" UNDER SECTION 4958 OF THE INTERNAL REVENUE CODE WHENEVER POSSIBLE. THE COMMITTEE WILL REVIEW AND UNDERSTAND THE INTERNAL REVENUE CODE PROVISIONS DEALING WITH "EXCESS BENEFIT TRANSACTIONS CONCERNING DISQUALIFIED PERSONS' COMPENSATION". WHEN DEVELOPING A COMPENSATION PHILOSOPHY TGEN KEPT IN MIND THE FOLLOWING FACTORS - THE TGEN MISSION AND STRATEGY - THE TGEN CULTURE - TRENDS IN COMPENSATION IN THE EXTERNAL ENVIRONMENT - TRENDS IN RECRUITMENT OF NEW EMPLOYEES - TRENDS IN ORGANIZATIONAL EMPLOYEE TURNOVER - TGEN'S LIFE CYCLE STAGE

Identifier	Return Reference	Explanation
AVAILABILITY OF GOVERNING DOCUMENTS, CONFLICT OF INTEREST POLICY,	AND FINANCIAL STATEMENTS TO THE GENERAL PUBLIC	FORM 990, PART VI, LINE 19 THE ORGANIZATION'S GOVERNING DOCUMENTS AND CONFLICT OF INTEREST POLICY ARE PROVIDED TO THE GENERAL PUBLIC UPON REQUEST

Identifier	Return Reference	Explanation
BOARD OF GOVERNORS	PART VII, SECTION A, LINE 1A	TGEN HAS A BOARD OF GOVERNORS THAT IS COMPRISED OF CURRENT VOTING DIRECTORS AND SOME FORMER DIRECTORS THAT REMAIN AFFILIATED WITH TGEN IN AN ADVISORY ROLE. THE CURRENT GOVERNORS WHO SERVE IN AN ADVISORY ROLE WITH NO VOTE AND ARE THEREFORE NOT LISTED AS DIRECTORS IN PART VII INCLUDE BETSEY BAYLESS, RICHARD BOALS, J LYLE BOOTMAN, PHD, SUSAN CLARK-JOHNSON, THE HONORABLE DIANE ENOS, BERT GETZ, JOHN HAEGER, PHD, SETHURAMAN PANCHANATHAN, PHD, FRANKLYN PRENDERGAST, MD, THE HONORABLE JIM SLATTERY, DR VICTOR TRASTEK

Identifier	Return Reference	Explanation
HOURS DEVOTED TO RELATED ORGANIZATION	FORM 990, PART VII	THE FOLLOWING INDIVIDUALS REPORTED IN PART VII DEVOTE TIME TO THE TRANSLATIONAL GENOMICS RESEARCH INSTITUTE (TGEN), THE TRANSLATIONAL GENOMICS RESEARCH INSTITUTE FOUNDATION (FOUNDATION), AND/OR VAN ANDEL RESEARCH INSTITUTE (VARI), RELATED TAX-EXEMPT ORGANIZATIONS, AS INDICATED JEFFREY TRENT (14 HOURS TGEN, 2 HOURS FOUNDATION, 24 HOURS VARI) TERESA BURLESON (39 HOURS TGEN, 1 HOUR FOUNDATION) DAVID VAN ANDEL AND JOHN KENNEDY ARE BOTH TGEN DIRECTORS WHO ARE COMPENSATED BY VARI, A RELATED TAX-EXEMPT ORGANIZATION, VAN ANDEL AS A CHAIRMAN/CEO AND KENNEDY AS A TRUSTEE. COMPENSATION AND HOURS INFORMATION WAS NOT AVAILABLE FOR DISCLOSURE ON THIS RETURN

Identifier	Return Reference	Explanation
OTHER CHANGES IN NET ASSETS OR FUND BALANCES	PART XI, LINE 5	OTHER CHANGES IN FUND BALANCES \$237,530

SCHEDULE R
(Form 990)

Department of the Treasury
Internal Revenue Service

Related Organizations and Unrelated Partnerships

▶ Complete if the organization answered "Yes" to Form 990, Part IV, line 33, 34, 35, 36, or 37.
▶ Attach to Form 990. ▶ See separate instructions.

OMB No 1545-0047

2010

Open to Public Inspection

Name of the organization

THE TRANSLATIONAL GENOMICS RESEARCH INSTITUTE

Employer identification number

75-3065445

Part I Identification of Disregarded Entities (Complete if the organization answered "Yes" on Form 990, Part IV, line 33.)					
(a) Name, address, and EIN of disregarded entity	(b) Primary activity	(c) Legal domicile (state or foreign country)	(d) Total income	(e) End-of-year assets	(f) Direct controlling entity
(1) TGEN ACCELERATOR MANAGEMENT LLC 445 NORTH 5TH STREET 600 PHOENIX, AZ 85004 75-3065445	GENOMICS	AZ	0	0	NA
(2) THE CENTER FOR TRANSLATIONAL DRUG DEV 445 NORTH 5TH STREET 600 PHOENIX, AZ 85004 43-2047329	DRUG DEVEL	AZ	3,265,088	1,091,122	TGEN ACC MGT
(3) INT'L BIOSIENCES COMMERCIALIZATION LLC 445 NORTH FIFTH STREET 6TH FLOOR PHOENIX, AZ 85004 27-2987735	LICENSING	AZ	0	0	TGEN ACC MGT

Part II Identification of Related Tax-Exempt Organizations (Complete if the organization answered "Yes" on Form 990, Part IV, line 34 because it had one or more related tax-exempt organizations during the tax year.)							
(a) Name, address, and EIN of related organization	(b) Primary activity	(c) Legal domicile (state or foreign country)	(d) Exempt Code section	(e) Public charity status (if section 501(c)(3))	(f) Direct controlling entity	(g) Section 512(b)(13) controlled organization	
						Yes	No
(1) TGEN RESEARCH INSTITUTE FOUNDATION 400 E VAN BUREN SUITE 850 PHOENIX, AZ 85004 33-1092191	FUND RAISING	AZ	501(C)(3)	7	TGEN		
(2) VAN ANDEL RESEARCH INSTITUTE 333 BOSTWICK AVENUE STE 850 GRAND RAPIDS, MI 49503 52-2000823	MEDICAL RSRCH	MI	501(C)(3)	4	NA		

Part III

Identification of Related Organizations Taxable as a Partnership (Complete if the organization answered "Yes" on Form 990, Part IV, line 34 because it had one or more related organizations treated as a partnership during the tax year.)

(a) Name, address, and EIN of related organization	(b) Primary activity	(c) Legal domicile (state or foreign country)	(d) Direct controlling entity	(e) Predominant income (related, unrelated, excluded from tax under sections 512- 514)	(f) Share of total income	(g) Share of end-of-year assets	(h) Disproporionate allocations?		(i) Code V—UBI amount in box 20 of Schedule K-1 (Form 1065)	(j) General or managing partner?		(k) Percentage ownership
							Yes	No		Yes	No	

Part IV

Identification of Related Organizations Taxable as a Corporation or Trust (Complete if the organization answered "Yes" on Form 990, Part IV, line 34 because it had one or more related organizations treated as a corporation or trust during the tax year.)

(a) Name, address, and EIN of related organization	(b) Primary activity	(c) Legal domicile (state or foreign country)	(d) Direct controlling entity	(e) Type of entity (C corp, S corp, or trust)	(f) Share of total income	(g) Share of end-of-year assets	(h) Percentage ownership

Part V

Transactions With Related Organizations (Complete if the organization answered "Yes" on Form 990, Part IV, line 34, 35, 35A, or 36.)

Note. Complete line 1 if any entity is listed in Parts II, III or IV

1

During the tax year, did the organization engage in any of the following transactions with one or more related organizations listed in Parts II-IV?

a

Receipt of (i) interest (ii) annuities (iii) royalties (iv) rent from a controlled entity

b

Gift, grant, or capital contribution to other organization(s)

c

Gift, grant, or capital contribution from other organization(s)

d

Loans or loan guarantees to or for other organization(s)

e

Loans or loan guarantees by other organization(s)

f

Sale of assets to other organization(s)

g

Purchase of assets from other organization(s)

h

Exchange of assets

i

Lease of facilities, equipment, or other assets to other organization(s)

j

Lease of facilities, equipment, or other assets from other organization(s)

k

Performance of services or membership or fundraising solicitations for other organization(s)

l

Performance of services or membership or fundraising solicitations by other organization(s)

m

Sharing of facilities, equipment, mailing lists, or other assets

n

Sharing of paid employees

o

Reimbursement paid to other organization for expenses

p

Reimbursement paid by other organization for expenses

q

Other transfer of cash or property to other organization(s)

r

Other transfer of cash or property from other organization(s)

Yes

No

1a

1b

1c

1d

1e

1f

1g

1h

1i

1j

1k

1l

1m

1n

1o

1p

1q

1r

Yes

Yes

Yes

Yes

No

2 If the answer to any of the above is "Yes," see the instructions for information on who must complete this line, including covered relationships and transaction thresholds			
(a) Name of other organization	(b) Transaction type(a-r)	(c) Amount involved	(d) Method of determining amount involved
(1) THE TRANSLATIONAL GENOMICS RESEARCH INST FDN	L	12,886,000	
(2) THE TRANSLATIONAL GENOMICS RESEARCH INST FDN	M	84,000	
(3) THE TRANSLATIONAL GENOMICS RESEARCH INST FDN	N	168,200	
(4) THE TRANSLATIONAL GENOMICS RESEARCH INST FDN	O	1,054,000	
(5)			
(6)			

Schedule R (Form 990) 2010

Provide the following information for each entity taxed as a partnership through which the organization conducted more than five percent of its activities (measured by total assets or gross revenue) that was not a related organization. See instructions regarding exclusion for certain investment partnerships.

[illegible]

Part VII

Supplemental Information

Complete this part to provide additional information for responses to questions on Schedule R (see instructions)

Identifier	Return Reference	Explanation
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