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Form 990

Return of Organization Exempt From Income Tax

OMB No 1545-0047

2019

Open to Public Inspection

Under section 501(c), 527, or 4947(a)(1) of the Internal Revenue Code (except private foundations)

Do not enter social security numbers on this form as it may be made public

Go to [www.irs.gov/Form990](http://www.irs.gov/Form990) for instructions and the latest information.

Department of the Treasury  
Internal Revenue Service

A For the 2019 calendar year, or tax year beginning 01-01-2019 , and ending 12-31-2019

B Check if applicable

☐ Address change

☐ Name change

☐ Initial return

☐ Final return/terminated

☐ Amended return

☐ Application pending

C Name of organization

STOWERS INSTITUTE FOR MEDICAL RESEARCH

% KATY GRAHAM

Doing business as

Number and street (or P O box if mail is not delivered to street address)

Room/suite

1000 EAST 50TH STREET

City or town, state or province, country, and ZIP or foreign postal code

KANSAS CITY, MO 64110

F Name and address of principal officer

DAVID M CHAO

1000 EAST 50TH STREET

KANSAS CITY, MO 64110

H(a) Is this a group return for subordinates?

☐ Yes ☒ No

H(b) Are all subordinates included?

☐ Yes ☐ No

If "No," attach a list (see instructions)

H(c) Group exemption number

D Employer identification number

20-2993509

E Telephone number

(816) 926-4000

G Gross receipts \$

168,628,194

I Tax-exempt status

☒ 501(c)(3) ☐ 501(c) ( ) (insert no ) ☐ 4947(a)(1) or ☐ 527

J Website: WWW STOWERS ORG

K Form of organization

☒ Corporation ☐ Trust ☐ Association ☐ Other

L Year of formation 2005

M State of legal domicile DE

Part I Summary

1 Briefly describe the organization's mission or most significant activities

SIMR'S EXEMPT PURPOSE IS TO PERFORM MEDICAL RESEARCH IN THE PUBLIC INTEREST WITH THE GOAL OF EXPANDING OUR UNDERSTANDING OF THE FUNDAMENTAL PROCESSES OF LIVING CELLS

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)

8

4 Number of independent voting members of the governing body (Part VI, line 1b)

3

5 Total number of individuals employed in calendar year 2019 (Part V, line 2a)

374

6 Total number of volunteers (estimate if necessary)

3

7a Total unrelated business revenue from Part VIII, column (C), line 12

0

7b Net unrelated business taxable income from Form 990-T, line 39

Revenue

8 Contributions and grants (Part VIII, line 1h)

85,419,816

9 Program service revenue (Part VIII, line 2g)

256,571

10 Investment income (Part VIII, column (A), lines 3, 4, and 7d )

739,516

11 Other revenue (Part VIII, column (A), lines 5, 6d, 8c, 9c, 10c, and 11e)

108,655

12 Total revenue—add lines 8 through 11 (must equal Part VIII, column (A), line 12)

86,524,558

73,449,478

Expenses

13 Grants and similar amounts paid (Part IX, column (A), lines 1–3 )

975,000

0

14 Benefits paid to or for members (Part IX, column (A), line 4)

0

15 Salaries, other compensation, employee benefits (Part IX, column (A), lines 5–10)

34,934,899

36,569,659

16a Professional fundraising fees (Part IX, column (A), line 11e)

0

0

b Total fundraising expenses (Part IX, column (D), line 25) ▶0

17 Other expenses (Part IX, column (A), lines 11a–11d, 11f–24e)

50,028,333

55,133,761

18 Total expenses Add lines 13–17 (must equal Part IX, column (A), line 25)

85,938,232

91,703,420

19 Revenue less expenses Subtract line 18 from line 12

586,326

-18,253,942

Net Assets or Fund Balances

20 Total assets (Part X, line 16)

335,909,539

312,071,612

21 Total liabilities (Part X, line 26)

106,170,867

101,229,740

22 Net assets or fund balances Subtract line 21 from line 20

229,738,672

210,841,872

Part II Signature Block

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

Signature of officer

2020-08-12

Date

DAVID M CHAO PRESIDENT

Type or print name and title

Paid Preparer Use Only

Print/Type preparer's name

Preparer's signature

Date 2020-08-11

Check ☐ if self-employed

PTIN P00755304

Firm's name ▶ PRICEWATERHOUSECOPPERS LLP

Firm's EIN ▶

Firm's address ▶ 600 13TH ST NW STE 1000

WASHINGTON, DC 20005

Phone no (202) 414-1000

May the IRS discuss this return with the preparer shown above? (see instructions)

☒ Yes ☐ No

For Paperwork Reduction Act Notice, see the separate instructions.

Cat No 11282Y

Form 990 (2019)

**Part III Statement of Program Service Accomplishments**Check if Schedule O contains a response or note to any line 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 organization's program service accomplishments for each of its three largest program services, as measured by expenses. Section 501(c)(3) and 501(c)(4) organizations are required to report the amount of grants and allocations to others, the total expenses, and revenue, if any, for each program service reported

<b>4a</b>	(Code )	(Expenses \$ 82,661,647	including grants of \$	(Revenue \$ 174,675 )
See Additional Data				
















<b>4b</b>	(Code )	(Expenses \$	including grants of \$	(Revenue \$ )
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<b>4c</b>	(Code )	(Expenses \$	including grants of \$	(Revenue \$ )
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<b>4d</b>	Other program services (Describe in Schedule O )			
	(Expenses \$	including grants of \$	(Revenue \$	)

<b>4e</b>	<b>Total program service expenses ▶</b>	82,661,647
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**Part IV Checklist of Required Schedules**

	Yes	No
<b>1</b> Is the organization described in section 501(c)(3) or 4947(a)(1) (other than a private foundation)? If "Yes," complete Schedule A 	<b>1</b> Yes	
<b>2</b> Is the organization required to complete Schedule B, Schedule of Contributors (see instructions)? 	<b>2</b> Yes	
<b>3</b> 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	<b>3</b>	No
<b>4 Section 501(c)(3) organizations.</b> 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	<b>4</b>	No
<b>5</b> 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	<b>5</b>	No
<b>6</b> Did the organization maintain any donor advised funds or any similar funds or accounts for which 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 	<b>6</b>	No
<b>7</b> 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 	<b>7</b>	No
<b>8</b> Did the organization maintain collections of works of art, historical treasures, or other similar assets? If "Yes," complete Schedule D, Part III 	<b>8</b>	No
<b>9</b> Did the organization report an amount in Part X, line 21 for escrow or custodial account liability, 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 	<b>9</b>	No
<b>10</b> Did the organization, directly or through a related organization, hold assets in temporarily restricted endowments, permanent endowments, or quasi endowments? If "Yes," complete Schedule D, Part V 	<b>10</b> Yes	
<b>11</b> 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		
<b>a</b> Did the organization report an amount for land, buildings, and equipment in Part X, line 10? If "Yes," complete Schedule D, Part VI 	<b>11a</b> Yes	
<b>b</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 	<b>11b</b>	No
<b>c</b> 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 	<b>11c</b>	No
<b>d</b> 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 	<b>11d</b> Yes	
<b>e</b> Did the organization report an amount for other liabilities in Part X, line 25? If "Yes," complete Schedule D, Part X 	<b>11e</b> Yes	
<b>f</b> 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 	<b>11f</b> Yes	
<b>12a</b> Did the organization obtain separate, independent audited financial statements for the tax year? If "Yes," complete Schedule D, Parts XI and XII 	<b>12a</b>	No
<b>b</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 and XII is optional 	<b>12b</b> Yes	
<b>13</b> Is the organization a school described in section 170(b)(1)(A)(ii)? If "Yes," complete Schedule E	<b>13</b>	No
<b>14a</b> Did the organization maintain an office, employees, or agents outside of the United States?	<b>14a</b>	No
<b>b</b> Did the organization have aggregate revenues or expenses of more than \$10,000 from grantmaking, fundraising, business, investment, and program service activities outside the United States, or aggregate foreign investments valued at \$100,000 or more? If "Yes," complete Schedule F, Parts I and IV	<b>14b</b>	No
<b>15</b> Did the organization report on Part IX, column (A), line 3, more than \$5,000 of grants or other assistance to or for any foreign organization? If "Yes," complete Schedule F, Parts II and IV	<b>15</b>	No
<b>16</b> Did the organization report on Part IX, column (A), line 3, more than \$5,000 of aggregate grants or other assistance to or for foreign individuals? If "Yes," complete Schedule F, Parts III and IV	<b>16</b>	No
<b>17</b> 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)	<b>17</b>	No
<b>18</b> 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	<b>18</b>	No
<b>19</b> 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	<b>19</b>	No
<b>20a</b> Did the organization operate one or more hospital facilities? If "Yes," complete Schedule H	<b>20a</b>	No
<b>b</b> If "Yes" to line 20a, did the organization attach a copy of its audited financial statements to this return?	<b>20b</b>	
<b>21</b> Did the organization report more than \$5,000 of grants or other assistance to any domestic organization or domestic government on Part IX, column (A), line 1? If "Yes," complete Schedule I, Parts I and II	<b>21</b>	No

**Part IV Checklist of Required Schedules** (continued)

	Yes	No
<b>22</b> Did the organization report more than \$5,000 of grants or other assistance to or for domestic individuals on Part IX, column (A), line 2? If "Yes," complete Schedule I, Parts I and III . . . . .	<b>22</b>	No
<b>23</b> Did the organization answer "Yes" to Part VII, Section A, line 3, 4, or 5 about compensation of the organization's current and former officers, directors, trustees, key employees, and highest compensated employees? If "Yes," complete Schedule J . . . . .	<b>23</b>	Yes
<b>24a</b> 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? If "Yes," answer lines 24b through 24d and complete Schedule K. If "No," go to line 25a . . . . .	<b>24a</b>	No
<b>b</b> Did the organization invest any proceeds of tax-exempt bonds beyond a temporary period exception? . . . . .	<b>24b</b>	
<b>c</b> Did the organization maintain an escrow account other than a refunding escrow at any time during the year to defease any tax-exempt bonds? . . . . .	<b>24c</b>	
<b>d</b> Did the organization act as an "on behalf of" issuer for bonds outstanding at any time during the year? . . . . .	<b>24d</b>	
<b>25a Section 501(c)(3), 501(c)(4), and 501(c)(29) organizations.</b> Did the organization engage in an excess benefit transaction with a disqualified person during the year? If "Yes," complete Schedule L, Part I . . . . .	<b>25a</b>	No
<b>b</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? If "Yes," complete Schedule L, Part I . . . . .	<b>25b</b>	No
<b>26</b> Did the organization report any amount on Part X, line 5 or 22 for receivables from or payables to any current or former officer, director, trustee, key employee, creator or founder, substantial contributor, or 35% controlled entity or family member of any of these persons? If "Yes," complete Schedule L, Part II . . . . .	<b>26</b>	No
<b>27</b> Did the organization provide a grant or other assistance to any current or former officer, director, trustee, key employee, creator or founder, substantial contributor, or employee thereof, a grant selection committee member, or to a 35% controlled entity (including an employee thereof) or family member of any of these persons? If "Yes," complete Schedule L, Part III . . . . .	<b>27</b>	No
<b>28</b> 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)		
<b>a</b> A current or former officer, director, trustee, key employee, creator or founder, or substantial contributor? If "Yes," complete Schedule L, Part IV . . . . .	<b>28a</b>	No
<b>b</b> A family member of any individual described in line 28a? If "Yes," complete Schedule L, Part IV . . . . .	<b>28b</b>	Yes
<b>c</b> A 35% controlled entity of one or more individuals and/or organizations described in lines 28a or 28b? If "Yes," complete Schedule L, Part IV . . . . .	<b>28c</b>	No
<b>29</b> Did the organization receive more than \$25,000 in non-cash contributions? If "Yes," complete Schedule M . . . . .	<b>29</b>	Yes
<b>30</b> Did the organization receive contributions of art, historical treasures, or other similar assets, or qualified conservation contributions? If "Yes," complete Schedule M . . . . .	<b>30</b>	No
<b>31</b> Did the organization liquidate, terminate, or dissolve and cease operations? If "Yes," complete Schedule N, Part I . . . . .	<b>31</b>	No
<b>32</b> Did the organization sell, exchange, dispose of, or transfer more than 25% of its net assets? If "Yes," complete Schedule N, Part II . . . . .	<b>32</b>	No
<b>33</b> Did the organization own 100% of an entity disregarded as separate from the organization under Regulations sections 301.7701-2 and 301.7701-3? If "Yes," complete Schedule R, Part I . . . . .	<b>33</b>	No
<b>34</b> Was the organization related to any tax-exempt or taxable entity? If "Yes," complete Schedule R, Part II, III, or IV, and Part V, line 1 . . . . .	<b>34</b>	Yes
<b>35a</b> Did the organization have a controlled entity within the meaning of section 512(b)(13)?	<b>35a</b>	Yes
<b>b</b> If "Yes" to line 35a, did the organization receive any payment from or engage in any transaction with a controlled entity within the meaning of section 512(b)(13)? If "Yes," complete Schedule R, Part V, line 2 . . . . .	<b>35b</b>	Yes
<b>36 Section 501(c)(3) organizations.</b> Did the organization make any transfers to an exempt non-charitable related organization? If "Yes," complete Schedule R, Part V, line 2 . . . . .	<b>36</b>	No
<b>37</b> 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? If "Yes," complete Schedule R, Part VI . . . . .	<b>37</b>	No
<b>38</b> Did the organization complete Schedule O and provide explanations in Schedule O for Part VI, lines 11b and 19? <b>Note.</b> All Form 990 filers are required to complete Schedule O . . . . .	<b>38</b>	Yes

**Part V Statements Regarding Other IRS Filings and Tax Compliance**Check if Schedule O contains a response or note to any line in this Part V . . . . . ☐

	Yes	No
<b>1a</b> Enter the number reported in Box 3 of Form 1096. Enter -0- if not applicable . . . . .	<b>1a</b>	31
<b>b</b> Enter the number of Forms W-2G included in line 1a. Enter -0- if not applicable . . . . .	<b>1b</b>	0
<b>c</b> Did the organization comply with backup withholding rules for reportable payments to vendors and reportable gaming (gambling) winnings to prize winners? . . . . .	<b>1c</b>	Yes

**Part V Statements Regarding Other IRS Filings and Tax Compliance** (continued)

<b>2a</b> Enter the number of employees reported on Form W-3, Transmittal of Wage and Tax Statements, filed for the calendar year ending with or within the year covered by this return . . . . .	<b>2a</b> 374			
<b>b</b> If at least one is reported on line 2a, did the organization file all required federal employment tax returns? <b>Note.</b> If the sum of lines 1a and 2a is greater than 250, you may be required to e-file (see instructions)		<b>2b</b>	Yes	
<b>3a</b> Did the organization have unrelated business gross income of \$1,000 or more during the year? . . .		<b>3a</b>		No
<b>b</b> If "Yes," has it filed a Form 990-T for this year? If "No" to line 3b, provide an explanation in Schedule O . . .		<b>3b</b>		
<b>4a</b> 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)? . . .		<b>4a</b>		No
<b>b</b> If "Yes," enter the name of the foreign country ▶ _____ See instructions for filing requirements for FinCEN Form 114, Report of Foreign Bank and Financial Accounts (FBAR)				
<b>5a</b> Was the organization a party to a prohibited tax shelter transaction at any time during the tax year? . . .		<b>5a</b>		No
<b>b</b> Did any taxable party notify the organization that it was or is a party to a prohibited tax shelter transaction?		<b>5b</b>		No
<b>c</b> If "Yes," to line 5a or 5b, did the organization file Form 8886-T? . . . . .		<b>5c</b>		
<b>6a</b> 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 as charitable contributions? . . .		<b>6a</b>		No
<b>b</b> If "Yes," did the organization include with every solicitation an express statement that such contributions or gifts were not tax deductible? . . . . .		<b>6b</b>		
<b>7 Organizations that may receive deductible contributions under section 170(c).</b>				
<b>a</b> 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? . . . . .		<b>7a</b>		No
<b>b</b> If "Yes," did the organization notify the donor of the value of the goods or services provided? . . . . .		<b>7b</b>		
<b>c</b> Did the organization sell, exchange, or otherwise dispose of tangible personal property for which it was required to file Form 8282? . . . . .		<b>7c</b>		No
<b>d</b> If "Yes," indicate the number of Forms 8282 filed during the year . . . . .	<b>7d</b>			
<b>e</b> Did the organization receive any funds, directly or indirectly, to pay premiums on a personal benefit contract?		<b>7e</b>		No
<b>f</b> Did the organization, during the year, pay premiums, directly or indirectly, on a personal benefit contract? . . .		<b>7f</b>		No
<b>g</b> If the organization received a contribution of qualified intellectual property, did the organization file Form 8899 as required? . . . . .		<b>7g</b>		
<b>h</b> If the organization received a contribution of cars, boats, airplanes, or other vehicles, did the organization file a Form 1098-C? . . . . .		<b>7h</b>		
<b>8 Sponsoring organizations maintaining donor advised funds.</b> Did a donor advised fund maintained by the sponsoring organization have excess business holdings at any time during the year? . . . . .		<b>8</b>		
<b>9 Sponsoring organizations maintaining donor advised funds.</b>				
<b>a</b> Did the sponsoring organization make any taxable distributions under section 4966? . . . . .		<b>9a</b>		
<b>b</b> Did the sponsoring organization make a distribution to a donor, donor advisor, or related person? . . .		<b>9b</b>		
<b>10 Section 501(c)(7) organizations.</b> Enter				
<b>a</b> Initiation fees and capital contributions included on Part VIII, line 12 . . . . .	<b>10a</b>			
<b>b</b> Gross receipts, included on Form 990, Part VIII, line 12, for public use of club facilities	<b>10b</b>			
<b>11 Section 501(c)(12) organizations.</b> Enter				
<b>a</b> Gross income from members or shareholders . . . . .	<b>11a</b>			
<b>b</b> Gross income from other sources (Do not net amounts due or paid to other sources against amounts due or received from them) . . . . .	<b>11b</b>			
<b>12a Section 4947(a)(1) non-exempt charitable trusts.</b> Is the organization filing Form 990 in lieu of Form 1041?		<b>12a</b>		
<b>b</b> If "Yes," enter the amount of tax-exempt interest received or accrued during the year	<b>12b</b>			
<b>13 Section 501(c)(29) qualified nonprofit health insurance issuers.</b>				
<b>a</b> Is the organization licensed to issue qualified health plans in more than one state? . . . . . <b>Note.</b> See the instructions for additional information the organization must report on Schedule O		<b>13a</b>		
<b>b</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 . . . . .	<b>13b</b>			
<b>c</b> Enter the amount of reserves on hand . . . . .	<b>13c</b>			
<b>14a</b> Did the organization receive any payments for indoor tanning services during the tax year? . . . . .		<b>14a</b>		No
<b>b</b> If "Yes," has it filed a Form 720 to report these payments? If "No," provide an explanation in Schedule O . . .		<b>14b</b>		
<b>15</b> Is the organization subject to the section 4960 tax on payment(s) of more than \$1,000,000 in remuneration or excess parachute payment(s) during the year? . . . . . If "Yes," see instructions and file Form 4720, Schedule N		<b>15</b>	Yes	
<b>16</b> Is the organization an educational institution subject to the section 4968 excise tax on net investment income? . . . If "Yes," complete Form 4720, Schedule O		<b>16</b>		No

**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 or note to any line in this Part VI ☒

**Section A. Governing Body and Management**

		Yes	No
<b>1a</b>	Enter the number of voting members of the governing body at the end of the tax year	8	
	If there are material differences in voting rights among members of the governing body, or if the governing body delegated broad authority to an executive committee or similar committee, explain in Schedule O		
<b>b</b>	Enter the number of voting members included in line 1a, above, who are independent	3	
<b>2</b>	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
<b>3</b>	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
<b>4</b>	Did the organization make any significant changes to its governing documents since the prior Form 990 was filed?	4	No
<b>5</b>	Did the organization become aware during the year of a significant diversion of the organization's assets?	5	No
<b>6</b>	Did the organization have members or stockholders?	6	No
<b>7a</b>	Did the organization have members, stockholders, or other persons who had the power to elect or appoint one or more members of the governing body?	7a	No
<b>b</b>	Are any governance decisions of the organization reserved to (or subject to approval by) members, stockholders, or persons other than the governing body?	7b	No
<b>8</b>	Did the organization contemporaneously document the meetings held or written actions undertaken during the year by the following		
<b>a</b>	The governing body?	8a	Yes
<b>b</b>	Each committee with authority to act on behalf of the governing body?	8b	Yes
<b>9</b>	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
<b>10a</b>	Did the organization have local chapters, branches, or affiliates?	10a	No
<b>b</b>	If "Yes," did the organization have written policies and procedures governing the activities of such chapters, affiliates, and branches to ensure their operations are consistent with the organization's exempt purposes?	10b	
<b>11a</b>	Has the organization provided a complete copy of this Form 990 to all members of its governing body before filing the form?	11a	Yes
<b>b</b>	Describe in Schedule O the process, if any, used by the organization to review this Form 990		
<b>12a</b>	Did the organization have a written conflict of interest policy? If "No," go to line 13	12a	Yes
<b>b</b>	Were officers, directors, or trustees, and key employees required to disclose annually interests that could give rise to conflicts?	12b	Yes
<b>c</b>	Did the organization regularly and consistently monitor and enforce compliance with the policy? If "Yes," describe in Schedule O how this was done	12c	Yes
<b>13</b>	Did the organization have a written whistleblower policy?	13	Yes
<b>14</b>	Did the organization have a written document retention and destruction policy?	14	Yes
<b>15</b>	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?		
<b>a</b>	The organization's CEO, Executive Director, or top management official	15a	Yes
<b>b</b>	Other officers or key employees of the organization	15b	No
	If "Yes" to line 15a or 15b, describe the process in Schedule O (see instructions)		
<b>16a</b>	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>b</b>	If "Yes," did the organization follow a written policy or procedure requiring the organization to evaluate its participation in joint venture arrangements under applicable federal tax law, and take 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 ▶

**18** Section 6104 requires an organization to make its Form 1023 (or 1024-A if applicable), 990, and 990-T (501(c)(3)s only) available for public inspection. Indicate how you made these available. Check all that apply.

☐ Own website ☐ Another's website ☒ Upon request ☐ Other (explain in Schedule O)

**19** Describe in Schedule O whether (and if so, how) the organization made its governing documents, conflict of interest policy, and financial statements available to the public during the tax year.

**20** State the name, address, and telephone number of the person who possesses the organization's books and records.  
 ▶ KATY GRAHAM 1000 E 50TH STREET KANSAS CITY, MO 64110 (816) 926-4000

**Part VII****Compensation of Officers, Directors, Trustees, Key Employees, Highest Compensated Employees, and Independent Contractors**Check if Schedule O contains a response or note to any line 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. 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, or 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.

See instructions for the order in which to list the persons above.

☐ 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 (list any hours for related organizations below dotted line)	(C) Position (do not check more than one box, unless person is both an officer and a director/trustee)						(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) RICHARD W BROWN DIRECTOR/CHAIR	2 0 ..... 46 0	X		X				0	2,543,498	61,830
(2) RODERICK L STURGEON DIRECTOR/CFO	2 0 ..... 48 0	X		X				0	1,704,983	64,605
(3) DAVID A WELTE DIRECTOR/SECRETARY	2 0 ..... 48 0	X		X				0	1,425,034	70,740
(4) DAVID M CHAO DIRECTOR/PRESIDENT/CEO	40 0 ..... 4 0	X		X				1,370,171	0	43,446
(5) ROBERT E KRUMLAUF - T DIR/SCIENTIFIC DIR EMERITUS	40 0 ..... 4 0	X						631,407	0	63,105
(6) BRENT KREIDER CHIEF OPERATING OFFICER	2 0 ..... 40 0			X				0	616,652	25,223
(7) R SCOTT HAWLEY INVESTIGATOR	40 0 ..... 2 0					X		372,647	0	61,908
(8) JERRY L WORKMAN INVESTIGATOR	40 0 ..... 0 0					X		373,543	0	54,043
(9) JOAN W CONAWAY INVESTIGATOR	40 0 ..... 0 0					X		311,126	0	61,863
(10) RONALD C CONAWAY INVESTIGATOR	40 0 ..... 0 0					X		313,193	0	43,446
(11) LINHENG LI INVESTIGATOR	40 0 ..... 0 0					X		276,038	0	42,317
(12) ALEJANDRO SANCHEZ ALVA DIR/SCIENTIFIC DIR FROM 7/2019	40 0 ..... 4 0	X						154,210	0	16,751
(13) VIRGINIA G STOWERS DIRECTOR	2 0 ..... 2 0	X						0	0	0
(14) ALBERZINE FREEMAN DIRECTOR	2 0 ..... 4 0	X						0	0	0
(15) JONATHAN THOMAS DIRECTOR	2 0 ..... 4 0	X						0	0	0

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

(A) Name and title	(B) Average hours per week (list any hours for related organizations below dotted line)	(C) Position (do not check more than one box, unless person is both an officer and a director/trustee)						(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			
<b>1b Sub-Total</b> . . . . .										
<b>c Total from continuation sheets to Part VII, Section A</b> . . . . .										
<b>d Total (add lines 1b and 1c)</b> . . . . .								3,802,335	6,290,167	609,277

**2** Total number of individuals (including but not limited to those listed above) who received more than \$100,000 of reportable compensation from the organization ► 47

	Yes	No
<b>3</b> Did the organization list any <b>former</b> officer, director or trustee, key employee, or highest compensated employee on line 1a? <i>If "Yes," complete Schedule J for such individual</i> . . . . .		No
<b>4</b> 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	
<b>5</b> 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. Report compensation for the calendar year ending with or within the organization's tax year.

(A) Name and business address	(B) Description of services	(C) Compensation
ETC GROUP LLC, 1997 S 1100 E SALT LAKE CITY, UT 84106	SOFTWARE DEVEL SRVCS	242,840
AMERICAN CENTURY INVESTMENTS, 4500 MAIN ST KANSAS CITY, MO 64111	INDIRECT - SEE SCH O	169,000

**2** Total number of independent contractors (including but not limited to those listed above) who received more than \$100,000 of compensation from the organization ► 2



Form 990 (2019)										Page <b>9</b>											
Part VIII Statement of Revenue																					
Check if Schedule O contains a response or note to any line in this Part VIII . . . . .										<input type="checkbox"/>											
										(A) Total revenue		(B) Related or exempt function revenue		(C) Unrelated business revenue		(D) Revenue excluded from tax under sections 512 - 514					
Contributions, Gifts, Grants and Other Similar Amounts										1a Federated campaigns . .		1a									
										b Membership dues . .		1b									
										c Fundraising events . .		1c									
										d Related organizations		1d		63,100,000							
										e Government grants (contributions)		1e		5,608,271							
										f All other contributions, gifts, grants, and similar amounts not included above		1f		793,037							
										g Noncash contributions included in lines 1a - 1f \$		1g		63,100,000							
										h Total. Add lines 1a-1f . . . . .										69,501,308	
Program Service Revenue										Business Code											
										2a COLLABORATION FEE FROM HHMI 501(C)(3)		900099		174,675		174,675					
										b											
										c											
										d											
										e											
										f All other program service revenue											
g Total. Add lines 2a-2f. . . . .										174,675											
Other Revenue										3 Investment income (including dividends, interest, and other similar amounts) . . . . .				1,654,052				1,654,052			
										4 Income from investment of tax-exempt bond proceeds				0							
										5 Royalties . . . . .				775,726				775,726			
												(i) Real		(ii) Personal							
										6a Gross rents		6a		15,304							
										b Less rental expenses		6b		15,304							
										c Rental income or (loss)		6c		0		0					
										d Net rental income or (loss) . . . . .						0					
												(i) Securities		(ii) Other							
										7a Gross amount from sales of assets other than inventory		7a		96,340,208		106,900					
										b Less cost or other basis and sales expenses		7b		95,086,631		76,781					
										c Gain or (loss)		7c		1,253,577		30,119					
										d Net gain or (loss) . . . . .						1,283,696				1,283,696	
										8a Gross income from fundraising events (not including \$ of contributions reported on line 1c) See Part IV, line 18 . . . . .		8a		0							
										b Less direct expenses . . . . .		8b		0							
										c Net income or (loss) from fundraising events . .						0					
										9a Gross income from gaming activities See Part IV, line 19 . . . . .		9a		0							
										b Less direct expenses . . . . .		9b		0							
										c Net income or (loss) from gaming activities . .						0					
										10a Gross sales of inventory, less returns and allowances . .		10a		0							
b Less cost of goods sold . .		10b		0																	
c Net income or (loss) from sales of inventory . .						0															
Miscellaneous Revenue		Business Code																			
11a OTHER REBATES & REVENUE		900099		60,021						60,021											
b																					
c																					
d All other revenue . . . . .																					
e Total. Add lines 11a-11d . . . . .				60,021																	
12 Total revenue. See instructions . . . . .				73,449,478		174,675				3,773,495											

Form 990 (2019)

**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).

Check if Schedule O contains a response or note to any line in this Part IX ☐

<b>Do not include amounts reported on lines 6b, 7b, 8b, 9b, and 10b of Part VIII.</b>	<b>(A)</b> Total expenses	<b>(B)</b> Program service expenses	<b>(C)</b> Management and general expenses	<b>(D)</b> Fundraising expenses
<b>1</b> Grants and other assistance to domestic organizations and domestic governments. See Part IV, line 21.	0			
<b>2</b> Grants and other assistance to domestic individuals. See Part IV, line 22.	0			
<b>3</b> Grants and other assistance to foreign organizations, foreign governments, and foreign individuals. See Part IV, lines 15 and 16.	0			
<b>4</b> Benefits paid to or for members.	0			
<b>5</b> Compensation of current officers, directors, trustees, and key employees.	2,279,090	2,051,181	227,909	0
<b>6</b> Compensation not included above, to disqualified persons (as defined under section 4958(f)(1)) and persons described in section 4958(c)(3)(B).	782,159	703,943	78,216	0
<b>7</b> Other salaries and wages.	24,432,159	21,988,943	2,443,216	0
<b>8</b> Pension plan accruals and contributions (include section 401 (k) and 403(b) employer contributions).	2,539,143	2,285,229	253,914	
<b>9</b> Other employee benefits.	4,845,937	4,361,343	484,594	0
<b>10</b> Payroll taxes.	1,691,171	1,522,054	169,117	0
<b>11</b> Fees for services (non-employees):				
<b>a</b> Management.	0			
<b>b</b> Legal.	0			
<b>c</b> Accounting.	0			
<b>d</b> Lobbying.	0			
<b>e</b> Professional fundraising services. See Part IV, line 17.	0			
<b>f</b> Investment management fees.	0			
<b>g</b> Other (If line 11g amount exceeds 10% of line 25, column (A) amount, list line 11g expenses on Schedule O).	1,166,109	1,049,498	116,611	
<b>12</b> Advertising and promotion.	0			
<b>13</b> Office expenses.	141,679	127,511	14,168	0
<b>14</b> Information technology.	340,358	306,322	34,036	0
<b>15</b> Royalties.	386,412	347,771	38,641	0
<b>16</b> Occupancy.	2,215,247	1,993,722	221,525	0
<b>17</b> Travel.	891,238	802,114	89,124	0
<b>18</b> Payments of travel or entertainment expenses for any federal, state, or local public officials.	0			
<b>19</b> Conferences, conventions, and meetings.	697,978	628,180	69,798	0
<b>20</b> Interest.	0			
<b>21</b> Payments to affiliates.	0			
<b>22</b> Depreciation, depletion, and amortization.	9,625,997	8,663,397	962,600	0
<b>23</b> Insurance.	0			
<b>24</b> Other expenses. Itemize expenses not covered above (List miscellaneous expenses in line 24e. If line 24e amount exceeds 10% of line 25, column (A) amount, list line 24e expenses on Schedule O):				
<b>a</b> COST-SHARING W/RELATED ORG	30,443,614	27,399,253	3,044,361	
<b>b</b> LAB SUPPLIES	6,590,191	5,931,172	659,019	
<b>c</b> PER CAPITA APPROP TO GSSIMR	1,285,700	1,285,700	0	
<b>d</b> NON-CAPITAL EQUIPMENT	465,867	419,280	46,587	
<b>e</b> All other expenses	883,371	795,034	88,337	
<b>25</b> Total functional expenses. Add lines 1 through 24e.	91,703,420	82,661,647	9,041,773	0
<b>26</b> Joint costs. Complete this line only if the organization reported in column (B) joint costs from a combined educational campaign and fundraising solicitation. Check here <input type="checkbox"/> if following SOP 98-2 (ASC 958-720)				

**Part X Balance Sheet**Check if Schedule O contains a response or note to any line in this Part IX ☐

				(A) Beginning of year		(B) End of year	
<b>Assets</b>	<b>1</b>	Cash—non-interest-bearing . . . . .		0	<b>1</b>	0	
	<b>2</b>	Savings and temporary cash investments . . . . .		1,897,970	<b>2</b>	937,906	
	<b>3</b>	Pledges and grants receivable, net . . . . .		415,996	<b>3</b>	470,714	
	<b>4</b>	Accounts receivable, net . . . . .		0	<b>4</b>	0	
	<b>5</b>	Loans and other payables to any current or former officer, director, trustee, key employee, creator or founder, substantial contributor, or 35% controlled entity or family member of any of these persons . . . . .		0	<b>5</b>	0	
	<b>6</b>	Loans and other receivables from other disqualified persons (as defined under section 4958(f)(1)), and persons described in section 4958(c)(3)(B) . . . . .		0	<b>6</b>	0	
	<b>7</b>	Notes and loans receivable, net . . . . .		0	<b>7</b>	0	
	<b>8</b>	Inventories for sale or use . . . . .		2,287	<b>8</b>	2,627	
	<b>9</b>	Prepaid expenses and deferred charges . . . . .		330,173	<b>9</b>	375,470	
	<b>10a</b>	Land, buildings, and equipment—cost or other basis—Complete Part VI of Schedule D	<b>10a</b>	333,055,015			
	<b>b</b>	Less—accumulated depreciation	<b>10b</b>	194,728,136	141,078,865	<b>10c</b>	138,326,879
	<b>11</b>	Investments—publicly traded securities . . . . .		101,356,319	<b>11</b>	85,997,459	
	<b>12</b>	Investments—other securities—See Part IV, line 11 . . . . .		373,601	<b>12</b>	448,431	
	<b>13</b>	Investments—program-related—See Part IV, line 11 . . . . .		0	<b>13</b>	0	
	<b>14</b>	Intangible assets . . . . .		0	<b>14</b>	0	
	<b>15</b>	Other assets—See Part IV, line 11 . . . . .		90,454,328	<b>15</b>	85,512,126	
<b>16</b>	<b>Total assets.</b> Add lines 1 through 15 (must equal line 34) . . . . .		335,909,539	<b>16</b>	312,071,612		
<b>Liabilities</b>	<b>17</b>	Accounts payable and accrued expenses . . . . .		7,568,381	<b>17</b>	9,773,789	
	<b>18</b>	Grants payable . . . . .		0	<b>18</b>	0	
	<b>19</b>	Deferred revenue . . . . .		202,716	<b>19</b>	334,266	
	<b>20</b>	Tax-exempt bond liabilities . . . . .		0	<b>20</b>	0	
	<b>21</b>	Escrow or custodial account liability—Complete Part IV of Schedule D		0	<b>21</b>	0	
	<b>22</b>	Loans and other payables to any current or former officer, director, trustee, key employee, creator or founder, substantial contributor, or 35% controlled entity or family member of any of these persons . . . . .		0	<b>22</b>	0	
	<b>23</b>	Secured mortgages and notes payable to unrelated third parties . . . . .		0	<b>23</b>	0	
	<b>24</b>	Unsecured notes and loans payable to unrelated third parties . . . . .		0	<b>24</b>	0	
	<b>25</b>	Other liabilities (including federal income tax, payables to related third parties, and other liabilities not included on lines 17 - 24)—Complete Part X of Schedule D		98,399,770	<b>25</b>	91,121,685	
	<b>26</b>	<b>Total liabilities.</b> Add lines 17 through 25 . . . . .		106,170,867	<b>26</b>	101,229,740	
<b>Net Assets or Fund Balances</b>	<b>Organizations that follow FASB ASC 958, check here <input checked="" type="checkbox"/> and complete lines 27, 28, 32, and 33.</b>						
	<b>27</b>	Net assets without donor restrictions . . . . .		229,617,951	<b>27</b>	210,635,494	
	<b>28</b>	Net assets with donor restrictions . . . . .		120,721	<b>28</b>	206,378	
	<b>Organizations that do not follow FASB ASC 958, check here <input type="checkbox"/> and complete lines 29 through 33.</b>						
	<b>29</b>	Capital stock or trust principal, or current funds . . . . .			<b>29</b>		
	<b>30</b>	Paid-in or capital surplus, or land, building or equipment fund . . . . .			<b>30</b>		
	<b>31</b>	Retained earnings, endowment, accumulated income, or other funds . . . . .			<b>31</b>		
	<b>32</b>	<b>Total net assets or fund balances</b> . . . . .		229,738,672	<b>32</b>	210,841,872	
<b>33</b>	<b>Total liabilities and net assets/fund balances</b> . . . . .		335,909,539	<b>33</b>	312,071,612		

**Part XI Reconciliation of Net Assets**Check if Schedule O contains a response or note to any line in this Part XI ☒

<b>1</b>	Total revenue (must equal Part VIII, column (A), line 12)	<b>1</b>	73,449,478
<b>2</b>	Total expenses (must equal Part IX, column (A), line 25)	<b>2</b>	91,703,420
<b>3</b>	Revenue less expenses Subtract line 2 from line 1	<b>3</b>	-18,253,942
<b>4</b>	Net assets or fund balances at beginning of year (must equal Part X, line 33, column (A))	<b>4</b>	229,738,672
<b>5</b>	Net unrealized gains (losses) on investments	<b>5</b>	-408,356
<b>6</b>	Donated services and use of facilities	<b>6</b>	
<b>7</b>	Investment expenses	<b>7</b>	
<b>8</b>	Prior period adjustments	<b>8</b>	
<b>9</b>	Other changes in net assets or fund balances (explain in Schedule O)	<b>9</b>	-234,502
<b>10</b>	Net assets or fund balances at end of year Combine lines 3 through 9 (must equal Part X, line 33, column (B))	<b>10</b>	210,841,872

**Part XII Financial Statements and Reporting**Check if Schedule O contains a response or note to any line in this Part XII ☐

	Yes	No
<b>1</b> Accounting method used to prepare the Form 990 <input type="checkbox"/> Cash <input checked="" type="checkbox"/> Accrual <input type="checkbox"/> Other _____ If the organization changed its method of accounting from a prior year or checked "Other," explain in Schedule O		
<b>2a</b> Were the organization's financial statements compiled or reviewed by an independent accountant? If 'Yes,' check a box below to indicate whether the financial statements for the year were compiled or reviewed on a separate basis, consolidated basis, or both <input type="checkbox"/> Separate basis <input type="checkbox"/> Consolidated basis <input type="checkbox"/> Both consolidated and separate basis	No	
<b>b</b> Were the organization's financial statements audited by an independent accountant? If 'Yes,' check a box below to indicate whether the financial statements for the year were audited on a separate basis, consolidated basis, or both <input type="checkbox"/> Separate basis <input checked="" type="checkbox"/> Consolidated basis <input type="checkbox"/> Both consolidated and separate basis	Yes	
<b>c</b> If "Yes," to line 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	
<b>3a</b> 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>b</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	

# Additional Data

**Software ID:**

**Software Version:**

**EIN:** 20-2993509

**Name:** STOWERS INSTITUTE FOR MEDICAL RESEARCH

Form 990 (2019)

**Form 990, Part III, Line 4a:**

SIMR'S ACCOMPLISHMENTS ARE DESCRIBED IN SCHEDULE O

<b>SCHEDULE A</b> (Form 990 or 990-EZ)	<b>Public Charity Status and Public Support</b> 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. ▶ Go to <a href="http://www.irs.gov/Form990">www.irs.gov/Form990</a> for instructions and the latest information.	OMB No 1545-0047
		<b>2019</b> <b>Open to Public Inspection</b>
Department of the Treasury Internal Revenue Service	<b>Name of the organization</b> STOWERS INSTITUTE FOR MEDICAL RESEARCH	<b>Employer identification number</b> 20-2993509

**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 12, 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 (Form 990 or 990-EZ) )
- 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  
SEE SCHEDULE A PART VI MA
- 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 agricultural research organization described in **170(b)(1)(A)(ix)** operated in conjunction with a land-grant college or university or a non-land grant college of agriculture See instructions Enter the name, city, and state of the college or university
- 10 ☐ 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 )
- 11 ☐ An organization organized and operated exclusively to test for public safety See **section 509(a)(4).**
- 12 ☐ 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 in lines 12a through 12d that describes the type of supporting organization and complete lines 12e, 12f, and 12g
  - a ☐ **Type I.** A supporting organization operated, supervised, or controlled by its supported organization(s), typically by giving the supported organization(s) the power to regularly appoint or elect a majority of the directors or trustees of the supporting organization **You must complete Part IV, Sections A and B.**
  - b ☐ **Type II.** A supporting organization supervised or controlled in connection with its supported organization(s), by having control or management of the supporting organization vested in the same persons that control or manage the supported organization(s) **You must complete Part IV, Sections A and C.**
  - c ☐ **Type III functionally integrated.** A supporting organization operated in connection with, and functionally integrated with, its supported organization(s) (see instructions) **You must complete Part IV, Sections A, D, and E.**
  - d ☐ **Type III non-functionally integrated.** A supporting organization operated in connection with its supported organization(s) that is not functionally integrated The organization generally must satisfy a distribution requirement and an attentiveness requirement (see instructions) **You must complete Part IV, Sections A and D, and Part V.**
  - e ☐ Check this box if the organization received a written determination from the IRS that it is a Type I, Type II, Type III functionally integrated, or Type III non-functionally integrated supporting organization
  - f Enter the number of supported organizations \_\_\_\_\_
- g Provide the following information about the supported organization(s)

(i) Name of supported organization	(ii) EIN	(iii) Type of organization (described on lines 1- 10 above (see instructions))	(iv) Is the organization listed in your governing document?		(v) Amount of monetary support (see instructions)	(vi) Amount of other support (see instructions)
			Yes	No		
<b>Total</b>						

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 failed to qualify under the tests listed below, please complete Part III.)

Section A. Public Support						
Calendar year (or fiscal year beginning in) ▶	(a) 2015	(b) 2016	(c) 2017	(d) 2018	(e) 2019	(f) Total
1 Gifts, grants, contributions, and membership fees received (Do not include any "unusual grant.")						
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						
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)						
6 Public support. Subtract line 5 from line 4						

Section B. Total Support						
Calendar year (or fiscal year beginning in) ►	(a) 2015	(b) 2016	(c) 2017	(d) 2018	(e) 2019	(f) Total
7 Amounts from line 4						
8 Gross income from interest, dividends, payments received on securities loans, rents, royalties and income from similar sources						
9 Net income from unrelated business activities, whether or not the business is regularly carried on						
10 Other income Do not include gain or loss from the sale of capital assets (Explain in Part VI )						
11 Total support. Add lines 7 through 10						
12 Gross receipts from related activities, etc (see instructions)					12	
13 First five years. If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a section 501(c)(3) organization, check this box and stop here . . . . . ► <input type="checkbox"/>						

Section C. Computation of Public Support Percentage				
<b>14</b>	Public support percentage for 2019 (line 6, column (f) divided by line 11, column (f))	<table><tr><td><b>14</b></td><td></td></tr></table>	<b>14</b>	
<b>14</b>				
<b>15</b>	Public support percentage for 2018 Schedule A, Part II, line 14	<table><tr><td><b>15</b></td><td></td></tr></table>	<b>15</b>	
<b>15</b>				
<b>16a</b>	<b>33 1/3% support test—2019.</b> If the organization did not check the box on line 13, and line 14 is 33 1/3% or more, check this box and <b>stop here.</b> The organization qualifies as a publicly supported organization	<input type="checkbox"/>		
<b>b</b>	<b>33 1/3% support test—2018.</b> If the organization did not check a box on line 13 or 16a, and line 15 is 33 1/3% or more, check this box and <b>stop here.</b> The organization qualifies as a publicly supported organization	<input type="checkbox"/>		
<b>17a</b>	<b>10%-facts-and-circumstances test—2019.</b> 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 <b>stop here.</b> Explain in Part VI how the organization meets the "facts-and-circumstances" test. The organization qualifies as a publicly supported organization	<input type="checkbox"/>		
<b>b</b>	<b>10%-facts-and-circumstances test—2018.</b> 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 <b>stop here.</b> Explain in Part VI how the organization meets the "facts-and-circumstances" test. The organization qualifies as a publicly supported organization	<input type="checkbox"/>		
<b>18</b>	<b>Private foundation.</b> If the organization did not check a box on line 13, 16a, 16b, 17a, or 17b, check this box and see instructions	<input type="checkbox"/>		

**Part III Support Schedule for Organizations Described in Section 509(a)(2)**

(Complete only if you checked the box on line 10 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) 2015	(b) 2016	(c) 2017	(d) 2018	(e) 2019	(f) Total
<b>1</b> Gifts, grants, contributions, and membership fees received (Do not include any "unusual grants.")						
<b>2</b> 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						
<b>3</b> Gross receipts from activities that are not an unrelated trade or business under section 513						
<b>4</b> Tax revenues levied for the organization's benefit and either paid to or expended on its behalf						
<b>5</b> The value of services or facilities furnished by a governmental unit to the organization without charge						
<b>6 Total.</b> Add lines 1 through 5						
<b>7a</b> Amounts included on lines 1, 2, and 3 received from disqualified persons						
<b>b</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						
<b>c</b> Add lines 7a and 7b						
<b>8 Public support.</b> (Subtract line 7c from line 6.)						

**Section B. Total Support**

Calendar year (or fiscal year beginning in) ►	(a) 2015	(b) 2016	(c) 2017	(d) 2018	(e) 2019	(f) Total
<b>9</b> Amounts from line 6						
<b>10a</b> Gross income from interest, dividends, payments received on securities loans, rents, royalties and income from similar sources						
<b>b</b> Unrelated business taxable income (less section 511 taxes) from businesses acquired after June 30, 1975						
<b>c</b> Add lines 10a and 10b						
<b>11</b> Net income from unrelated business activities not included in line 10b, whether or not the business is regularly carried on						
<b>12</b> Other income. Do not include gain or loss from the sale of capital assets (Explain in Part VI.)						
<b>13 Total support.</b> (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 section 501(c)(3) organization, check this box and **stop here** ► ☐

**Section C. Computation of Public Support Percentage**

<b>15</b> Public support percentage for 2019 (line 8, column (f) divided by line 13, column (f))	<b>15</b>	
<b>16</b> Public support percentage from 2018 Schedule A, Part III, line 15	<b>16</b>	

**Section D. Computation of Investment Income Percentage**

<b>17</b> Investment income percentage for <b>2019</b> (line 10c, column (f) divided by line 13, column (f))	<b>17</b>	
<b>18</b> Investment income percentage from <b>2018</b> Schedule A, Part III, line 17	<b>18</b>	

**19a 33 1/3% support tests—2019.** 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—2018.** 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 Supporting Organizations**

(Complete only if you checked a box on line 12 of Part I. If you checked 12a of Part I, complete Sections A and B. If you checked 12b of Part I, complete Sections A and C. If you checked 12c of Part I, complete Sections A, D, and E. If you checked 12d of Part I, complete Sections A and D, and complete Part V.)

**Section A. All Supporting Organizations**

	Yes	No
<b>1</b> Are all of the organization's supported organizations listed by name in the organization's governing documents? <i>If "No," describe in <b>Part VI</b> how the supported organizations are designated. If designated by class or purpose, describe the designation. If historic and continuing relationship, explain.</i>	<b>1</b>	
<b>2</b> Did the organization have any supported organization that does not have an IRS determination of status under section 509(a)(1) or (2)? <i>If "Yes," explain in <b>Part VI</b> how the organization determined that the supported organization was described in section 509(a)(1) or (2).</i>	<b>2</b>	
<b>3a</b> Did the organization have a supported organization described in section 501(c)(4), (5), or (6)? <i>If "Yes," answer (b) and (c) below.</i>	<b>3a</b>	
<b>b</b> Did the organization confirm that each supported organization qualified under section 501(c)(4), (5), or (6) and satisfied the public support tests under section 509(a)(2)? <i>If "Yes," describe in <b>Part VI</b> when and how the organization made the determination.</i>	<b>3b</b>	
<b>c</b> Did the organization ensure that all support to such organizations was used exclusively for section 170(c)(2)(B) purposes? <i>If "Yes," explain in <b>Part VI</b> what controls the organization put in place to ensure such use.</i>	<b>3c</b>	
<b>4a</b> Was any supported organization not organized in the United States ("foreign supported organization")? <i>If "Yes" and if you checked 12a or 12b in Part I, answer (b) and (c) below.</i>	<b>4a</b>	
<b>b</b> Did the organization have ultimate control and discretion in deciding whether to make grants to the foreign supported organization? <i>If "Yes," describe in <b>Part VI</b> how the organization had such control and discretion despite being controlled or supervised by or in connection with its supported organizations.</i>	<b>4b</b>	
<b>c</b> Did the organization support any foreign supported organization that does not have an IRS determination under sections 501(c)(3) and 509(a)(1) or (2)? <i>If "Yes," explain in <b>Part VI</b> what controls the organization used to ensure that all support to the foreign supported organization was used exclusively for section 170(c)(2)(B) purposes.</i>	<b>4c</b>	
<b>5a</b> Did the organization add, substitute, or remove any supported organizations during the tax year? <i>If "Yes," answer (b) and (c) below (if applicable). Also, provide detail in <b>Part VI</b>, including (i) the names and EIN numbers of the supported organizations added, substituted, or removed, (ii) the reasons for each such action, (iii) the authority under the organization's organizing document authorizing such action, and (iv) how the action was accomplished (such as by amendment to the organizing document).</i>	<b>5a</b>	
<b>b</b> <b>Type I or Type II only.</b> Was any added or substituted supported organization part of a class already designated in the organization's organizing document?	<b>5b</b>	
<b>c</b> <b>Substitutions only.</b> Was the substitution the result of an event beyond the organization's control?	<b>5c</b>	
<b>6</b> Did the organization provide support (whether in the form of grants or the provision of services or facilities) to anyone other than (i) its supported organizations, (ii) individuals that are part of the charitable class benefited by one or more of its supported organizations, or (iii) other supporting organizations that also support or benefit one or more of the filing organization's supported organizations? <i>If "Yes," provide detail in <b>Part VI</b>.</i>	<b>6</b>	
<b>7</b> Did the organization provide a grant, loan, compensation, or other similar payment to a substantial contributor (defined in section 4958(c)(3)(C)), a family member of a substantial contributor, or a 35% controlled entity with regard to a substantial contributor? <i>If "Yes," complete Part I of Schedule L (Form 990 or 990-EZ).</i>	<b>7</b>	
<b>8</b> Did the organization make a loan to a disqualified person (as defined in section 4958) not described in line 7? <i>If "Yes," complete Part I of Schedule L (Form 990 or 990-EZ).</i>	<b>8</b>	
<b>9a</b> Was the organization controlled directly or indirectly at any time during the tax year by one or more disqualified persons as defined in section 4946 (other than foundation managers and organizations described in section 509(a)(1) or (2))? <i>If "Yes," provide detail in <b>Part VI</b>.</i>	<b>9a</b>	
<b>b</b> Did one or more disqualified persons (as defined in line 9a) hold a controlling interest in any entity in which the supporting organization had an interest? <i>If "Yes," provide detail in <b>Part VI</b>.</i>	<b>9b</b>	
<b>c</b> Did a disqualified person (as defined in line 9a) have an ownership interest in, or derive any personal benefit from, assets in which the supporting organization also had an interest? <i>If "Yes," provide detail in <b>Part VI</b>.</i>	<b>9c</b>	
<b>10a</b> Was the organization subject to the excess business holdings rules of section 4943 because of section 4943(f) (regarding certain Type II supporting organizations, and all Type III non-functionally integrated supporting organizations)? <i>If "Yes," answer line 10b below.</i>	<b>10a</b>	
<b>b</b> Did the organization have any excess business holdings in the tax year? <i>(Use Schedule C, Form 4720, to determine whether the organization had excess business holdings.)</i>	<b>10b</b>	

Part IV Supporting Organizations (continued)			Yes	No
11	Has the organization accepted a gift or contribution from any of the following persons?			
a	A person who directly or indirectly controls, either alone or together with persons described in (b) and (c) below, the governing body of a supported organization?			
b	A family member of a person described in (a) above?	11a		
c	A 35% controlled entity of a person described in (a) or (b) above? If "Yes" to a, b, or c, provide detail in Part VI	11b		
		11c		

Section B. Type I Supporting Organizations			Yes	No
1	Did the directors, trustees, or membership of one or more supported organizations have the power to regularly appoint or elect at least a majority of the organization's directors or trustees at all times during the tax year? If "No," describe in Part VI how the supported organization(s) effectively operated, supervised, or controlled the organization's activities. If the organization had more than one supported organization, describe how the powers to appoint and/or remove directors or trustees were allocated among the supported organizations and what conditions or restrictions, if any, applied to such powers during the tax year			
		1		
2	Did the organization operate for the benefit of any supported organization other than the supported organization(s) that operated, supervised, or controlled the supporting organization? If "Yes," explain in Part VI how providing such benefit carried out the purposes of the supported organization(s) that operated, supervised or controlled the supporting organization			
		2		

Section C. Type II Supporting Organizations			Yes	No
1	Were a majority of the organization's directors or trustees during the tax year also a majority of the directors or trustees of each of the organization's supported organization(s)? If "No," describe in Part VI how control or management of the supporting organization was vested in the same persons that controlled or managed the supported organization(s)			
		1		

Section D. All Type III Supporting Organizations			Yes	No
1	Did the organization provide to each of its supported organizations, by the last day of the fifth month of the organization's tax year, (i) a written notice describing the type and amount of support provided during the prior tax year, (ii) a copy of the Form 990 that was most recently filed as of the date of notification, and (iii) copies of the organization's governing documents in effect on the date of notification, to the extent not previously provided?			
		1		
2	Were any of the organization's officers, directors, or trustees either (i) appointed or elected by the supported organization (s) or (ii) serving on the governing body of a supported organization? If "No," explain in Part VI how the organization maintained a close and continuous working relationship with the supported organization(s)			
		2		
3	By reason of the relationship described in (2), did the organization's supported organizations have a significant voice in the organization's investment policies and in directing the use of the organization's income or assets at all times during the tax year? If "Yes," describe in Part VI the role the organization's supported organizations played in this regard			
		3		

Section E. Type III Functionally-Integrated Supporting Organizations			Yes	No
1	Check the box next to the method that the organization used to satisfy the Integral Part Test during the year (see instructions)			
a	<input type="checkbox"/> The organization satisfied the Activities Test. Complete line 2 below			
b	<input type="checkbox"/> The organization is the parent of each of its supported organizations. Complete line 3 below			
c	<input type="checkbox"/> The organization supported a governmental entity. Describe in Part VI how you supported a government entity (see instructions)			
2	Activities Test. Answer (a) and (b) below.			
a	Did substantially all of the organization's activities during the tax year directly further the exempt purposes of the supported organization(s) to which the organization was responsive? If "Yes," then in Part VI identify those supported organizations and explain how these activities directly furthered their exempt purposes, how the organization was responsive to those supported organizations, and how the organization determined that these activities constituted substantially all of its activities			
		2a		
b	Did the activities described in (a) constitute activities that, but for the organization's involvement, one or more of the organization's supported organization(s) would have been engaged in? If "Yes," explain in Part VI the reasons for the organization's position that its supported organization(s) would have engaged in these activities but for the organization's involvement			
		2b		
3	Parent of Supported Organizations. Answer (a) and (b) below.			
a	Did the organization have the power to regularly appoint or elect a majority of the officers, directors, or trustees of each of the supported organizations? Provide details in Part VI.			
		3a		
b	Did the organization exercise a substantial degree of direction over the policies, programs and activities of each of its supported organizations? If "Yes," describe in Part VI the role played by the organization in this regard			
		3b		

**Part V Type III Non-Functionally Integrated 509(a)(3) Supporting Organizations**

**1** ☐ Check here if the organization satisfied the Integral Part Test as a qualifying trust on Nov. 20, 1970 (explain in Part VI) **See instructions.** All other Type III non-functionally integrated supporting organizations must complete Sections A through E

<b>Section A - Adjusted Net Income</b>		(A) Prior Year	(B) Current Year (optional)
<b>1</b> Net short-term capital gain	<b>1</b>		
<b>2</b> Recoveries of prior-year distributions	<b>2</b>		
<b>3</b> Other gross income (see instructions)	<b>3</b>		
<b>4</b> Add lines 1 through 3	<b>4</b>		
<b>5</b> Depreciation and depletion	<b>5</b>		
<b>6</b> Portion of operating expenses paid or incurred for production or collection of gross income or for management, conservation, or maintenance of property held for production of income (see instructions)	<b>6</b>		
<b>7</b> Other expenses (see instructions)	<b>7</b>		
<b>8</b> <b>Adjusted Net Income</b> (subtract lines 5, 6 and 7 from line 4)	<b>8</b>		
<b>Section B - Minimum Asset Amount</b>		(A) Prior Year	(B) Current Year (optional)
<b>1</b> Aggregate fair market value of all non-exempt-use assets (see instructions for short tax year or assets held for part of year)	<b>1</b>		
<b>a</b> Average monthly value of securities	<b>1a</b>		
<b>b</b> Average monthly cash balances	<b>1b</b>		
<b>c</b> Fair market value of other non-exempt-use assets	<b>1c</b>		
<b>d</b> <b>Total</b> (add lines 1a, 1b, and 1c)	<b>1d</b>		
<b>e</b> <b>Discount</b> claimed for blockage or other factors (explain in detail in Part VI)			
<b>2</b> Acquisition indebtedness applicable to non-exempt use assets	<b>2</b>		
<b>3</b> Subtract line 2 from line 1d	<b>3</b>		
<b>4</b> Cash deemed held for exempt use. Enter 1-1/2% of line 3 (for greater amount, see instructions)	<b>4</b>		
<b>5</b> Net value of non-exempt-use assets (subtract line 4 from line 3)	<b>5</b>		
<b>6</b> Multiply line 5 by .035	<b>6</b>		
<b>7</b> Recoveries of prior-year distributions	<b>7</b>		
<b>8</b> <b>Minimum Asset Amount</b> (add line 7 to line 6)	<b>8</b>		
<b>Section C - Distributable Amount</b>			Current Year
<b>1</b> Adjusted net income for prior year (from Section A, line 8, Column A)	<b>1</b>		
<b>2</b> Enter 85% of line 1	<b>2</b>		
<b>3</b> Minimum asset amount for prior year (from Section B, line 8, Column A)	<b>3</b>		
<b>4</b> Enter greater of line 2 or line 3	<b>4</b>		
<b>5</b> Income tax imposed in prior year	<b>5</b>		
<b>6</b> <b>Distributable Amount.</b> Subtract line 5 from line 4, unless subject to emergency temporary reduction (see instructions)	<b>6</b>		
<b>7</b> <input type="checkbox"/> Check here if the current year is the organization's first as a non-functionally-integrated Type III supporting organization (see instructions)			

**Part V Type III Non-Functionally Integrated 509(a)(3) Supporting Organizations** (continued)

<b>Section D - Distributions</b>	<b>Current Year</b>
<b>1</b> Amounts paid to supported organizations to accomplish exempt purposes	
<b>2</b> Amounts paid to perform activity that directly furthers exempt purposes of supported organizations, in excess of income from activity	
<b>3</b> Administrative expenses paid to accomplish exempt purposes of supported organizations	
<b>4</b> Amounts paid to acquire exempt-use assets	
<b>5</b> Qualified set-aside amounts (prior IRS approval required)	
<b>6</b> Other distributions (describe in <b>Part VI</b> ) See instructions	
<b>7 Total annual distributions.</b> Add lines 1 through 6	
<b>8</b> Distributions to attentive supported organizations to which the organization is responsive (provide details in <b>Part VI</b> ) See instructions	
<b>9</b> Distributable amount for 2019 from Section C, line 6	
<b>10</b> Line 8 amount divided by Line 9 amount	

<b>Section E - Distribution Allocations</b> (see instructions)	<b>(i) Excess Distributions</b>	<b>(ii) Underdistributions Pre-2019</b>	<b>(iii) Distributable Amount for 2019</b>
<b>1</b> Distributable amount for 2019 from Section C, line 6			
<b>2</b> Underdistributions, if any, for years prior to 2019 (reasonable cause required-- explain in <b>Part VI</b> ) See instructions			
<b>3</b> Excess distributions carryover, if any, to 2019			
<b>a</b> From 2014. . . . .			
<b>b</b> From 2015. . . . .			
<b>c</b> From 2016. . . . .			
<b>d</b> From 2017. . . . .			
<b>e</b> From 2018. . . . .			
<b>f Total</b> of lines 3a through e			
<b>g</b> Applied to underdistributions of prior years			
<b>h</b> Applied to 2019 distributable amount			
<b>i</b> Carryover from 2014 not applied (see instructions)			
<b>j</b> Remainder Subtract lines 3g, 3h, and 3i from 3f			
<b>4</b> Distributions for 2019 from Section D, line 7 \$			
<b>a</b> Applied to underdistributions of prior years			
<b>b</b> Applied to 2019 distributable amount			
<b>c</b> Remainder Subtract lines 4a and 4b from 4			
<b>5</b> Remaining underdistributions for years prior to 2019, if any Subtract lines 3g and 4a from line 2 If the amount is greater than zero, explain in <b>Part VI</b> See instructions			
<b>6</b> Remaining underdistributions for 2019 Subtract lines 3h and 4b from line 1 If the amount is greater than zero, explain in <b>Part VI</b> See instructions			
<b>7 Excess distributions carryover to 2020.</b> Add lines 3j and 4c			
<b>8</b> Breakdown of line 7			
<b>a</b> Excess from 2015. . . . .			
<b>b</b> Excess from 2016. . . . .			
<b>c</b> Excess from 2017. . . . .			
<b>d</b> Excess from 2018. . . . .			
<b>e</b> Excess from 2019. . . . .			

**Part VI** **Supplemental Information.** Provide the explanations required by Part II, line 10, Part II, line 17a or 17b, Part III, line 12, Part IV, Section A, lines 1, 2, 3b, 3c, 4b, 4c, 5a, 6, 9a, 9b, 9c, 11a, 11b, and 11c, Part IV, Section B, lines 1 and 2, Part IV, Section C, line 1, Part IV, Section D, lines 2 and 3, Part IV, Section E, lines 1c, 2a, 2b, 3a and 3b, Part V, line 1, Part V, Section B, line 1e, Part V Section D, lines 5, 6, and 8, and Part V, Section E, lines 2, 5, and 6. Also complete this part for any additional information. (See instructions)

Facts And Circumstances Test

990 Schedule A, Supplemental Information

Return Reference	Explanation
PART I, LINE 4	<p>IN 2019, STOWERS INSTITUTE FOR MEDICAL RESEARCH ("SIMR") SCIENTISTS COLLABORATED WITH RESEARCHERS AT 70 NATIONAL AND 50 INTERNATIONAL INSTITUTIONS INCLUDING DOZENS OF HOSPITALS, MEDICAL CENTERS, AND MEDICAL SCHOOLS. MANY OF THESE COLLABORATIONS RESULTED IN DISCOVERIES THAT MERITED PUBLICATION IN LEADING PEER-REVIEWED SCIENTIFIC JOURNALS AND/OR SUCCESSFULLY FUNDED GRANT AWARDS. SIMR CONDUCTS MEDICAL RESEARCH IN CONJUNCTION WITH THE UNIVERSITY OF KANSAS (KU) AND ITS AFFILIATES THE UNIVERSITY OF KANSAS HOSPITAL AUTHORITY AND THE UNIVERSITY OF KANSAS MEDICAL CENTER (KUMC), PURSUANT TO A WRITTEN MEMORANDUM OF UNDERSTANDING. KUMC IS THE ACADEMIC HEALTH SCIENCE CENTER OF THE LARGEST PUBLIC RESEARCH UNIVERSITY IN THE STATE OF KANSAS. KUMC OFFERS PROGRAMS AND SERVICES THAT FOCUS ON EDUCATION, RESEARCH, PATIENT CARE, AND COMMUNITY ENGAGEMENT. AS OF DECEMBER 31, 2019, FIVE KUMC STUDENTS HAVE RECEIVED MS DEGREES AND 45 KUMC STUDENTS HAVE RECEIVED PHD DEGREES FOR THESIS WORK PERFORMED IN SIMR'S LABS. KUMC IS AFFILIATED WITH THE UNIVERSITY OF KANSAS HOSPITAL, A NONPROFIT INDEPENDENT HOSPITAL CO-LOCATED WITH THE MAIN KUMC CAMPUS IN KANSAS CITY, KS. IN 2019, TWENTY SIMR RESEARCH PROGRAM LEADERS WERE ADJUNCT FACULTY IN FOUR KUMC DEPARTMENTS. THESE APPOINTMENTS INCLUDED 12 FULL PROFESSORS, FOUR ASSOCIATE PROFESSORS, AND FOUR ASSISTANT PROFESSORS. IN 2019, 52 OF SIMR'S 74 ORIGINAL RESEARCH PUBLICATIONS INCLUDED BOTH SIMR AND KUMC AFFILIATIONS. ABOUT A DOZEN KUMC STUDENTS PERFORMED PREDOCTORAL RESEARCH IN SIMR LABS IN 2019. SIMR IS ALSO A CONSORTIUM MEMBER OF THE UNIVERSITY OF KANSAS CANCER CENTER AT KUMC, A CANCER RESEARCH AND CARE PARTNERSHIP SPANNING TWO STATES AND INVOLVING COLLABORATION AMONG RESEARCHERS, PHYSICIANS, AND CANCER SUPPORT PROFESSIONALS IN BASIC, TRANSLATIONAL, AND CLINICAL RESEARCH AREAS. IN JUNE 2012, THE NIH'S NATIONAL CANCER INSTITUTE (NCI) NAMED THE UNIVERSITY OF KANSAS CANCER CENTER A NCI-DESIGNATED CANCER CENTER. THE NCI CANCER CENTERS PROGRAM IS A PILLAR OF FEDERAL CANCER RESEARCH EFFORTS AND INTEGRAL TO THE NCI'S PROGRAMS FOR STUDYING, TREATING, AND PREVENTING CANCER. IN KUMC'S APPLICATION TO THE NCI CANCER CENTERS PROGRAM, \$4 MILLION OF THE \$48 MILLION IN GRANTS CITED IN THE APPLICATION WERE GRANTS THAT HAD BEEN AWARDED TO SIMR INVESTIGATORS. IN 2019, 12 SIMR RESEARCH PROGRAM LEADERS WERE MEMBERS OF THE UNIVERSITY OF KANSAS CANCER CENTER'S CANCER BIOLOGY RESEARCH PROGRAM, INCLUDING LINHENG LI, PHD, WHO SERVES AS CO-LEADER OF THE PROGRAM. IN 2019, SIMR RESEARCH PROGRAM LEADER MICHAEL WASHBURN, PHD, CONTINUED A RESEARCH PROJECT IN COLLABORATION WITH ROY JENSEN, MD, DIRECTOR OF THE UNIVERSITY OF KANSAS CANCER CENTER. THE OVERALL AIM OF THIS RESEARCH EFFORT IS TO DETERMINE HOW CANCER THERAPEUTICS ACT ON PROTEIN NETWORKS IN CELLS AND TISSUES. DR. JENSEN IS A WORLD-RENOWNED EXPERT ON BREAST CANCER AND HOLDS ADDITIONAL POSITIONS AS DIRECTOR, KANSAS MASONIC CANCER RESEARCH INSTITUTE, WILLIAM R. JEWELL DISTINGUISHED KANSAS MASONIC PROFESSOR, AND P</p>

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Return Reference	Explanation
PART I, LINE 4	<p>ROFESSOR OF PATHOLOGY AND LABORATORY MEDICINE, ANATOMY AND CELL BIOLOGY, CANCER BIOLOGY, AND MOLECULAR BIOSCIENCES AT KUMC THE PROJECT AIMS TO FURTHER EXPLORE THE MECHANISM OF ACTION OF SUBEROYLANILIDE HYDROXAMIC ACID (SAHA), WHICH IS USED AS CHEMOTHERAPY FOR CERTAIN LYMPHOMAS AND IS BEING EVALUATED IN CLINICAL TRIALS FOR OTHER CANCERS RECENT REPORTS SUGGEST THAT SAHA HAS ADDITIONAL EFFECTS THAT INVOLVE PROTEIN NETWORKS MORE BROADLY, THUS SUGGESTING OTHER POSSIBLE MECHANISMS OF ACTION RESULTS FROM THIS JOINT RESEARCH EFFORT MAY ENABLE THE FUTURE DEVELOPMENT OF MORE SPECIFIC AND EFFECTIVE HUMAN THERAPEUTICS THIS PROJECT IS SUPPORTED IN PART BY A NIH GRANT FROM THE NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES IN 2019, SIMR RESEARCH PROGRAM LEADER LINHENG LI, PHD, CONTINUED A COLLABORATION WITH THE UNIVERSITY OF KANSAS CANCER CENTER AND CHILDREN'S MERCY HOSPITAL, KANSAS CITY, MO, TO INVESTIGATE APPROACHES TO TREAT LEUKEMIA THIS RESEARCH FOCUSES ON TARGETING CANCER STEM CELLS TO HELP REDUCE THE RECURRENCE OF CANCER AFTER A PATIENT GOES INTO REMISSION THE COLLABORATION BUILDS ON FOUNDATIONAL RESEARCH FROM THE LI LAB THAT HAS CHARACTERIZED CANCER STEM CELLS AT MOLECULAR AND CELLULAR LEVELS THIS ONGOING RESEARCH COLLABORATION HAS GENERATED FINDINGS THAT HAVE BEEN REPORTED IN ORIGINAL RESEARCH PUBLICATIONS INCLUDING ZHAO M ET AL, 2019 KUMC IS THE SPONSOR OF A RELATED CLINICAL RESEARCH STUDY, "LOW-DOSE DAUNORUBICIN IN PATIENTS WITH RELAPSED/REFRACTORY ACUTE LEUKEMIA," WHICH IS DESIGNED TO ASSESS THE FEASIBILITY AND TOLERABILITY OF ADMINISTERING A LOW DOSE OF THE DRUG TO PATIENTS WITH RELAPSED OR REFRACTORY ACUTE MYELOID LEUKEMIA (AML) OR ACUTE LYMPHOBLASTIC LEUKEMIA (ALL), AND TO OBTAIN PRELIMINARY DATA ON THE DRUG ENGAGING ITS TARGET SIMR PARTICIPATED IN COLLABORATIONS CONDUCTING RESEARCH IN CONJUNCTION WITH THE FOLLOWING US HOSPITALS, PURSUANT TO AN UNDERSTANDING TO MAINTAIN CONTINUING CLOSE COOPERATION IN THE ACTIVE CONDUCT OF MEDICAL RESEARCH IN 2019 INSTITUTION LOCATION BRIGHAM AND WOMEN'S HOSPITAL BOSTON, MA CHILDREN'S HOSPITAL OF PHILADELPHIA PHILADELPHIA, PA CHILDREN'S MERCY HOSPITAL KANSAS CITY, MO CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER CINCINNATI, OH DANA-FARBER CANCER INSTITUTE BOSTON, MA FRED HUTCHINSON CANCER RESEARCH CENTER SEATTLE, WA GEORGE WASHINGTON UNIVERSITY SCHOOL OF MEDICINE AND HEALTH SCIENCES WASHINGTON, DC GREATER BALTIMORE MEDICAL CENTER TOWSON, MD HARVARD MEDICAL SCHOOL BOSTON, MA JOHNS HOPKINS SCHOOL OF MEDICINE BALTIMORE, MD NEW YORK UNIVERSITY SCHOOL OF MEDICINE NEW YORK, NY NORTHWESTERN UNIVERSITY FEINBERG SCHOOL OF MEDICINE CHICAGO, IL OREGON HEALTH AND SCIENCE UNIVERSITY SCHOOL OF MEDICINE PORTLAND, OR PERLMUTTER CANCER CENTER NEW YORK, NY SAINT LOUIS UNIVERSITY SCHOOL OF MEDICINE ST LOUIS, MO SEATTLE CHILDREN'S HOSPITAL SEATTLE, WA SINAI HOSPITAL OF BALTIMORE BALTIMORE, MD STANFORD UNIVERSITY SCHOOL OF MEDICINE PALO ALTO, CA UNIVERSITY OF CALIFORNIA LOS ANGELES DAVID GEFFEN SCHOOL OF MEDICINE LOS ANGELES</p>

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Return Reference	Explanation
PART I, LINE 4	<p>ES, CA UNIVERSITY OF CALIFORNIA SAN FRANCISCO SAN FRANCISCO, CA UNIVERSITY OF KANSAS CANCER CENTER KANSAS CITY, KS UNIVERSITY OF KANSAS MEDICAL CENTER KANSAS CITY, KS UNIVERSITY OF PENNSYLVANIA PERELMAN SCHOOL OF MEDICINE PHILADELPHIA, PA UNIVERSITY OF PITTSBURGH CANCER INSTITUTE PITTSBURGH, PA UNIVERSITY OF ROCHESTER MEDICAL CENTER ROCHESTER, NY UNIVERSITY OF SOUTH CAROLINA SCHOOL OF MEDICINE COLUMBIA, SC UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER MEMPHIS, TN UNIVERSITY OF TEXAS MD ANDERSON CANCER CENTER HOUSTON, TX WEILL CORNELL MEDICINE NEW YORK, NY TO CARRY OUT THE RESEARCH DESCRIBED IN THE FOLLOWING EXAMPLES, SIMR AND HOSPITAL, MEDICAL CENTER, OR MEDICAL SCHOOL ENTERED INTO A COOPERATION AGREEMENT PURSUANT TO WHICH THEY AGREED TO ESTABLISH, DEVELOP, ADMINISTER, AND MAINTAIN CONTINUING CLOSE COOPERATION IN THE ACTIVE CONDUCT OF MEDICAL RESEARCH, INCLUDING THROUGH SPECIFIC COOPERATIVE EFFORTS IN THE AREAS OF RESEARCH, SHARING OF INFORMATION, PURSUANT OF JOINT GRANTS, INTERACTION OF STAFF, ADJUNCT/JOINT APPOINTMENTS, AND SHARING OF FACILITIES IN ORDER TO ASSURE THE SUCCESS OF THEIR COOPERATIVE RELATIONSHIP, EACH AGREED TO ENGAGE IN EFFECTIVE, COORDINATED AND ONGOING PLANNING, OVERSIGHT, AND COMMUNICATION, AND TO COMMIT THE NECESSARY RESOURCES, BOTH HUMAN AND MONETARY, TO SUPPORT, FACILITATE, AND PROMOTE THE COOPERATION</p>



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Return Reference	Explanation
JOINT MEDICAL RESEARCH ON THE CHARACTERIZATION OF INTESTINAL STEM CELLS -	<p>THE LI LAB PERFORMED JOINT MEDICAL RESEARCH ON THE CHARACTERIZATION OF INTESTINAL STEM CELLS WITH COLLABORATORS AT CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER, DAVID GEFFEN SCHOOL OF MEDICINE AT UCLA, OREGON HEALTH AND SCIENCE UNIVERSITY SCHOOL OF MEDICINE, STANFORD UNIVERSITY SCHOOL OF MEDICINE, AND UNIVERSITY OF PITTSBURGH CANCER INSTITUTE. INTESTINAL DISEASES RANGING FROM CROHN'S DISEASE TO COLITIS TO CANCER MAY BENEFIT FROM INTESTINAL STEM CELL THERAPIES. THIS RESEARCH ADVANCES THE UNDERSTANDING OF THE BIOLOGY OF STEM CELLS THAT RESIDE IN THE INTESTINE AND EXPLORES HOW THEY CAN BE USED TO TREAT AND CURE INTESTINAL DISEASES. THIS ONGOING RESEARCH COLLABORATION IS SUPPORTED IN PART BY A NIH GRANT AWARDED BY THE NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES. JOINT MEDICAL RESEARCH ON EYE DEVELOPMENT AND FUNCTION - THE XIE LAB PERFORMED JOINT MEDICAL RESEARCH ON GENETIC PROGRAMS THAT REGULATE THE MAMMALIAN EYE WITH COLLABORATORS AT CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER, UNIVERSITY OF ROCHESTER MEDICAL CENTER, AND KYOTO UNIVERSITY. AN EYE STRUCTURE CALLED THE CILIARY BODY IS IMPORTANT FOR CHANGING THE SHAPE OF THE LENS AND FOR PRODUCTION OF THE AQUEOUS HUMOR, THE FLUID THAT MAINTAINS PRESSURE IN THE EYE. DEFECTS IN LENS ACCOMMODATION LEAD TO MYOPIA OR NEARSIGHTEDNESS, WHILE HIGH PRESSURE WITHIN THE EYE IS ONE OF THE MOST IMPORTANT RISK FACTORS FOR GLAUCOMA, THE SECOND LEADING BLIND-CAUSING DISEASE. THE GOAL OF THIS RESEARCH IS TO REVEAL THE MECHANISMS REGULATING THE DEVELOPMENT AND SECRETION OF THE CILIARY BODY. KNOWLEDGE GAINED FROM THESE STUDIES MAY ENHANCE TREATMENTS FOR GLAUCOMA AND MYOPIA. THIS RESEARCH IS SUPPORTED IN PART BY A NIH GRANT FROM THE NATIONAL EYE INSTITUTE. OTHER US COLLABORATORS INCLUDED BERNICE PAUHAH BISHOP MUSEUM, BOSTON COLLEGE, CALIFORNIA INSTITUTE OF TECHNOLOGY, COLD SPRING HARBOR LABORATORY, CORNELIA DE LANGE SYNDROME FOUNDATION, ELMHURST COLLEGE, FLORIDA ATLANTIC UNIVERSITY, HOWARD HUGHES MEDICAL INSTITUTE, INDIANA UNIVERSITY, JOHNS HOPKINS UNIVERSITY, LAWRENCE BERKELEY LABORATORY, MARQUETTE UNIVERSITY, MILLERSVILLE UNIVERSITY, MORGRIDGE INSTITUTE FOR RESEARCH, NATIONAL CANCER INSTITUTE OF THE NATIONAL INSTITUTES OF HEALTH, NATURAL HISTORY MUSEUM OF LOS ANGELES COUNTY, NEW YORK STATE DEPARTMENT OF HEALTH, NEW YORK UNIVERSITY, OPEN UNIVERSITY, PRINCETON UNIVERSITY, PURDUE UNIVERSITY, RUTGERS UNIVERSITY, SOUTHEASTERN LOUISIANA UNIVERSITY, UNIVERSITY OF CALIFORNIA DAVIS, UNIVERSITY OF CALIFORNIA IRVINE, UNIVERSITY OF CALIFORNIA MERCED, UNIVERSITY OF CALIFORNIA SAN DIEGO, UNIVERSITY OF FLORIDA ST AUGUSTINE, UNIVERSITY OF FLORIDA GAINESVILLE, UNIVERSITY OF KANSAS, UNIVERSITY OF KENTUCKY, UNIVERSITY OF MARYLAND, UNIVERSITY OF MINNESOTA, UNIVERSITY OF MISSOURI-KANSAS CITY, UNIVERSITY OF PITTSBURGH, UNIVERSITY OF TEXAS AT ARLINGTON, UNIVERSITY OF VIRGINIA, UNIVERSITY OF WASHINGTON, UNIVERSITY OF WISCONSIN-MADISON, VIRGINIA COMMONWEALTH UNIVERSITY, AND WASHINGTON UNIVERSITY IN ST LOUIS. SIMR COLLABOR</p>

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Return Reference	Explanation
JOINT MEDICAL RESEARCH ON THE CHARACTERIZATION OF INTESTINAL STEM CELLS -	<p>ATED WITH THE FOLLOWING INTERNATIONAL HOSPITALS, MEDICAL CENTERS, AND MEDICAL SCHOOLS IN 2019 BEIJING PERFECT FAMILY HOSPITAL, CHINA, CHINESE ACADEMY OF MEDICAL SCIENCES, TIANJIN, CHINA, HENAN PROVINCIAL PEOPLE'S HOSPITAL, ZHENGZHOU, CHINA, HONG KONG BAPTIST UNIVERSITY, CHINA, HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY, CHINA, PEKING UNION MEDICAL COLLEGE, TIANJIN, CHINA, THIRD AFFILIATED HOSPITAL OF SUN YAT-SEN UNIVERSITY, GUANGZHOU, CHINA, TIANJIN MEDICAL UNIVERSITY, HEPING, CHINA, TSINGHUA UNIVERSITY SCHOOL OF MEDICINE, BEIJING, CHINA, WUHAN NO 1 HOSPITAL, HUBEI, CHINA, AND ZHEJIANG UNIVERSITY SCHOOL OF MEDICINE, HANGZHOU, CHINA OTHER INTERNATIONAL COLLABORATORS INCLUDED AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH, SINGAPORE, BARCELONA INSTITUTE OF SCIENCE AND TECHNOLOGY, SPAIN, CARDIFF UNIVERSITY, CATHAYS, UNITED KINGDOM, CENTRO DE INVESTIGACION BIOMEDICA EN RED EN BIOINGENIERIA, MADRID, SPAIN, CIENCIAS BIOLOGICAS, QUITO, ECUADOR, CZECH ACADEMY OF SCIENCES, PRAGUE, DURHAM UNIVERSITY, UNITED KINGDOM, ECOLE POLYTECHNIQUE, PALAISEAU, FRANCE, FRIEDRICH MIESCHER LABORATORY OF THE MAX PLANCK SOCIETY, TUBINGEN, GERMANY, HUAZHONG UNIVERSITY OF SCIENCE AND TECHNOLOGY, WUHAN, HUBEI, CHINA, HUBEI UNIVERSITY, WUHAN, CHINA, INSTITUTO DE FISIOLOGIA, MENDOZA, ARGENTINA, INSTITUTO DE HISTOLOGIA Y EMBRIOLOGIA, MENDOZA, ARGENTINA, INTERNATIONAL IBERIAN NANOTECHNOLOGY LABORATORY, BRAGA, PORTUGAL, ISRAEL INSTITUTE OF TECHNOLOGY, HAIFA, JILIN UNIVERSITY, CHANGCHUN, CHINA, KIEL UNIVERSITY, GERMANY, KYOTO UNIVERSITY, JAPAN, MAX PLANCK INSTITUTE FOR EVOLUTIONARY BIOLOGY, PLON, GERMANY, MAX PLANCK INSTITUTE OF MOLECULAR CELL BIOLOGY AND GENETICS, DRESDEN, GERMANY, NATIONAL RESEARCH COUNCIL, PISA, ITALY, OSAKA UNIVERSITY, JAPAN, RESEARCH CENTRE FOR MEDICAL GENETICS, MOSCOW, RUSSIA, SEJONG UNIVERSITY, SEOUL, KOREA, SHENZHEN UNIVERSITY, CHINA, SUN YAT-SEN UNIVERSITY, GUANGZHOU, CHINA, TEL AVIV UNIVERSITY, ISRAEL, TOHOKU UNIVERSITY, SENDAI, JAPAN, TSINGHUA UNIVERSITY, BEIJING, CHINA, UNIVERSITY OF HELSINKI, FINLAND, UNIVERSITY OF MILAN, ITALY, UNIVERSITY OF SASKATCHEWAN, SASKATOON, CANADA, UNIVERSITY OF SCIENCE AND TECHNOLOGY, HONG KONG, CHINA, UNIVERSITY OF TOKYO, JAPAN, UNIVERSITY OF TORONTO, CANADA, UNIVERSITY OF WURZBURG, GERMANY, UNIVERSITY OF ZURICH, SWITZERLAND, WELLCOME SANGER INSTITUTE, HINXTON, UNITED KINGDOM, AND YONSEI UNIVERSITY COLLEGE OF DENTISTRY, SEOUL, KOREA</p>

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As Filed Data -

DLN: 93493230032500

SCHEDULE D  
(Form 990)

Department of the Treasury  
Internal Revenue Service

Supplemental Financial Statements

► Complete if the organization answered "Yes," on Form 990, Part IV, line 6, 7, 8, 9, 10, 11a, 11b, 11c, 11d, 11e, 11f, 12a, or 12b.  
► Attach to Form 990.  
► Go to [www.irs.gov/Form990](http://www.irs.gov/Form990) for instructions and the latest information.

OMB No 1545-0047

2019

Open to Public Inspection

Name of the organization  
STOWERS INSTITUTE FOR MEDICAL RESEARCH

Employer identification number  
20-2993509

Part I

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

1

Total number at end of year

2

Aggregate value of contributions to (during year)

3

Aggregate value of 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?

6

Did the organization inform all grantees, donors, and donor advisors in writing that grant funds can 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?

(a)

Donor advised funds

(b)

Funds and other accounts

☐ Yes

☐ No

☐ Yes

☐ No

Part II

Conservation Easements.  
Complete if the organization answered "Yes" on 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 education)  
☐ Protection of natural habitat  
☐ Preservation of open space  
☐ Preservation of an historically important land area  
☐ Preservation of a certified historic structure

2

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

2a

Total number of conservation easements

2b

Total acreage restricted by conservation easements

2c

Number of conservation easements on a certified historic structure included in (a)

2d

Number of conservation easements included in (c) acquired after 7/25/06, and not on a historic structure listed in the National Register

3

Number of conservation easements modified, transferred, released, extinguished, or terminated by the organization during the tax 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?

6

Staff and volunteer hours devoted to monitoring, inspecting, handling of violations, and enforcing conservation easements during the year ►

7

Amount of expenses incurred in monitoring, inspecting, handling of violations, 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 section 170(h)(4)(B)(ii)?

9

In Part XIII, 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

☐ Yes

☐ No

☐ Yes

☐ No

Part III

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

1a

If the organization elected, as permitted under SFAS 116 (ASC 958), 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 XIII, the text of the footnote to its financial statements that describes these items

1b

If the organization elected, as permitted under SFAS 116 (ASC 958), 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)

Revenue included on 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 (ASC 958) relating to these items

a

Revenue included on Form 990, Part VIII, line 1

b

Assets included in Form 990, Part X

For Paperwork Reduction Act Notice, see the Instructions for Form 990.

Cat No 52283D

Schedule D (Form 990) 2019

Part III

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

3

Using the organization's acquisition, 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 XIII

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" on 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 XIII and complete the following table

c

Beginning balance

d

Additions during the year

e

Distributions during the year

f

Ending balance

	Amount
1c	
1d	
1e	
1f	

2a

Did the organization include an amount on Form 990, Part X, line 21, for escrow or custodial account liability?

☐

Yes

☐

No

b

If "Yes," explain the arrangement in Part XIII. Check here if the explanation has been provided in Part XIII

☐

Part V

Endowment Funds.

Complete if the organization answered "Yes" on 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 . . . . .	120,721	550,240	626,653	39,191	0
b Contributions . . . . .	163,200	75,000	100,000	661,216	100,000
c Net investment earnings, gains, and losses					
d Grants or scholarships . . . . .					
e Other expenditures for facilities and programs . . . . .	77,543	504,519	176,413	73,754	60,809
f Administrative expenses . . . . .					
g End of year balance . . . . .	206,378	120,721	550,240	626,653	39,191

2

Provide the estimated percentage of the current year end balance (line 1g, column (a)) held as

a

Board designated or quasi-endowment ▶

b

Permanent endowment ▶

c

Temporarily restricted endowment ▶ 100 000 %

The percentages on lines 2a, 2b, and 2c should equal 100%

3a

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

(i) unrelated organizations . . . . .

(ii) related organizations . . . . .

b

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

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

4

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

Part VI

Land, Buildings, and Equipment.

Complete if the organization answered "Yes" on Form 990, Part IV, line 11a. See Form 990, Part X, line 10.

Description of property	(a) Cost or other basis (investment)	(b) Cost or other basis (other)	(c) Accumulated depreciation	(d) Book value
1a Land . . . . .		3,400,000		3,400,000
b Buildings . . . . .		232,820,072	115,655,967	117,164,105
c Leasehold improvements				
d Equipment . . . . .		95,244,723	79,072,169	16,172,554
e Other . . . . .		1,590,220		1,590,220
Total. Add lines 1a through 1e (Column (d) must equal Form 990, Part X, column (B), line 10(c) ) . . . ▶				138,326,879

Part VII

Investments—Other Securities.

Complete if the organization answered "Yes" on Form 990, Part IV, line 11b. See Form 990, Part X, line 12.

(a) Description of security or category (including name of security)	(b) Book value	(c) Method of valuation Cost or end-of-year market value
(1) Financial derivatives . . . . .		
(2) Closely-held equity interests . . . . .		
(3) Other _____		
(A)		
(B)		
(C)		
(D)		
(E)		
(F)		
(G)		
(H)		
Total. (Column (b) must equal Form 990, Part X, col (B) line 12 ) ▶		

Part VIII

Investments—Program Related.

Complete if the organization answered 'Yes' on Form 990, Part IV, line 11c. See Form 990, Part X, line 13.

(a) Description of investment	(b) Book value	(c) Method of valuation Cost or end-of-year market value
(1)		
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
Total. (Column (b) must equal Form 990, Part X, col (B) line 13 ) ▶		

Part IX

Other Assets.

Complete if the organization answered 'Yes' on Form 990, Part IV, line 11d. See Form 990, Part X, line 15

(a) Description	(b) Book value
(1) ANNUITY REC FROM AFFILIATE	85,435,085
(2) OTHER RECEIVABLES	77,041
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
Total. (Column (b) must equal Form 990, Part X, col (B) line 15 ) . . . . . ▶	85,512,126

Part X

Other Liabilities.

Complete if the organization answered 'Yes' on Form 990, Part IV, line 11e or 11f. See Form 990, Part X, line 25.

(a) Description of liability	(b) Book value
1. Federal income taxes	0
(5)	
(6)	
(7)	
(8)	
(9)	
Total. (Column (b) must equal Form 990, Part X, col (B) line 25 ) ▶	91,121,685

2. Liability for uncertain tax positions In Part XIII, provide the text of the footnote to the organization's financial statements that reports the organization's liability for uncertain tax positions under FIN 48 (ASC 740) Check here if the text of the footnote has been provided in Part XIII ☒

Schedule D (Form 990) 2019

**Part XI Reconciliation of Revenue per Audited Financial Statements With Revenue per Return.**

Complete if the organization answered 'Yes' on Form 990, Part IV, line 12a.

<b>1</b>	Total revenue, gains, and other support per audited financial statements . . . . .		<b>1</b>	
<b>2</b>	Amounts included on line 1 but not on Form 990, Part VIII, line 12			
<b>a</b>	Net unrealized gains (losses) on investments . . . . .	<b>2a</b>		
<b>b</b>	Donated services and use of facilities . . . . .	<b>2b</b>		
<b>c</b>	Recoveries of prior year grants . . . . .	<b>2c</b>		
<b>d</b>	Other (Describe in Part XIII ) . . . . .	<b>2d</b>		
<b>e</b>	Add lines <b>2a</b> through <b>2d</b> . . . . .		<b>2e</b>	
<b>3</b>	Subtract line <b>2e</b> from line <b>1</b> . . . . .		<b>3</b>	
<b>4</b>	Amounts included on Form 990, Part VIII, line 12, but not on line <b>1</b>			
<b>a</b>	Investment expenses not included on Form 990, Part VIII, line 7b . . . . .	<b>4a</b>		
<b>b</b>	Other (Describe in Part XIII ) . . . . .	<b>4b</b>		
<b>c</b>	Add lines <b>4a</b> and <b>4b</b> . . . . .		<b>4c</b>	
<b>5</b>	Total revenue. Add lines <b>3</b> and <b>4c</b> . (This must equal Form 990, Part I, line 12 ) . . . . .		<b>5</b>	

**Part XII Reconciliation of Expenses per Audited Financial Statements With Expenses per Return.**

Complete if the organization answered 'Yes' on Form 990, Part IV, line 12a.

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

**Part XIII Supplemental Information**

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, line 2, Part XI, lines 2d and 4b, and Part XII, lines 2d and 4b. Also complete this part to provide any additional information.

Return Reference	Explanation
See Additional Data Table	

**Part XIII**   **Supplemental Information** *(continued)*

Return Reference	Explanation

**Additional Data**

**Software ID:**  
**Software Version:**  
**EIN:** 20-2993509  
**Name:** STOWERS INSTITUTE FOR MEDICAL RESEARCH

**Supplemental Information**

Return Reference	Explanation
PART V, LINE 4	THE ENDOWMENT IS FROM A SINGLE DONOR TO CONTRIBUTE FUNDING TOWARDS AN ESTABLISHED LECTURE SERIES PROGRAM WHERE SIMR HOSTS SCIENCE SPEAKERS FROM OTHER RESEARCH INSTITUTIONS AND UNIV ERSITIES TO ENCOURAGE COLLABORATIVE SCIENCE OPPORTUNITIES WITH TOP SCIENTISTS FROM AROUND THE WORLD



Supplemental Information	
Return Reference	Explanation
PART X, LINE 2	FIN 48 FINANCIAL STATEMENT FOOTNOTE FROM THE CONSOLIDATED STATEMENTS OF STOWERS INSTITUTE FOR MEDICAL RESEARCH (THE INSTITUTE) IS AS FOLLOWS THE INSTITUTE RECOGNIZES THE EFFECT OF INCOME TAX POSITIONS ONLY IF THOSE POSITIONS ARE MORE LIKELY THAN NOT OF BEING SUSTAINED RECOGNIZED INCOME TAX POSITIONS ARE MEASURED AT THE LARGEST AMOUNT THAT IS GREATER THAN 50% LIKELY OF BEING REALIZED

Schedule J (Form 990)	<div>Compensation Information</div> <div>For certain Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees</div> <div>▶ Complete if the organization answered "Yes" on Form 990, Part IV, line 23. ▶ Attach to Form 990.</div> <div>▶ Go to <a href="http://www.irs.gov/Form990">www.irs.gov/Form990</a> for instructions and the latest information.</div>	OMB No 1545-0047
		2019
		Open to Public Inspection

Department of the Treasury Internal Revenue Service	Name of the organization STOWERS INSTITUTE FOR MEDICAL RESEARCH	Employer identification number 20-2993509
--	--	--

Part I Questions Regarding Compensation		Yes	No
<b>1a</b> Check the appropriate box(es) if the organization provided any of the following to or for a person listed on Form 990, Part VII, Section A, line 1a. Complete Part III to provide any relevant information regarding these items.			
<input type="checkbox"/> First-class or charter travel	<input type="checkbox"/> Housing allowance or residence for personal use		
<input type="checkbox"/> Travel for companions	<input type="checkbox"/> Payments for business use of personal residence		
<input checked="" type="checkbox"/> Tax indemnification and gross-up payments	<input type="checkbox"/> Health or social club dues or initiation fees		
<input type="checkbox"/> Discretionary spending account	<input type="checkbox"/> Personal services (e.g., maid, chauffeur, chef)		
<b>b</b> If any of the boxes on Line 1a are checked, did the organization follow a written policy regarding payment or reimbursement or provision of all of the expenses described above? If "No," complete Part III to explain	<b>1b</b>	Yes	
<b>2</b> Did the organization require substantiation prior to reimbursing or allowing expenses incurred by all directors, trustees, officers, including the CEO/Executive Director, regarding the items checked on Line 1a?	<b>2</b>	Yes	
<b>3</b> Indicate which, if any, of the following the filing organization used to establish the compensation of the organization's CEO/Executive Director. Check all that apply. Do not check any boxes for methods used by a related organization to establish compensation of the CEO/Executive Director, but explain in Part III.			
<input checked="" type="checkbox"/> Compensation committee	<input checked="" type="checkbox"/> Written employment contract		
<input checked="" type="checkbox"/> Independent compensation consultant	<input checked="" type="checkbox"/> Compensation survey or study		
<input type="checkbox"/> Form 990 of other organizations	<input checked="" type="checkbox"/> Approval by the board or compensation committee		
<b>4</b> During the year, did any person listed on Form 990, Part VII, Section A, line 1a, with respect to the filing organization or a related organization:			
<b>a</b> Receive a severance payment or change-of-control payment?	<b>4a</b>		No
<b>b</b> Participate in, or receive payment from, a supplemental nonqualified retirement plan?	<b>4b</b>		No
<b>c</b> Participate in, or receive payment from, an equity-based compensation arrangement?	<b>4c</b>		No
If "Yes" to any of lines 4a-c, list the persons and provide the applicable amounts for each item in Part III.			
<b>Only 501(c)(3), 501(c)(4), and 501(c)(29) organizations must complete lines 5-9.</b>			
<b>5</b> For persons listed on Form 990, Part VII, Section A, line 1a, did the organization pay or accrue any compensation contingent on the revenues of:			
<b>a</b> The organization?	<b>5a</b>	Yes	
<b>b</b> Any related organization?	<b>5b</b>		No
If "Yes," on line 5a or 5b, describe in Part III.			
<b>6</b> For persons listed on Form 990, Part VII, Section A, line 1a, did the organization pay or accrue any compensation contingent on the net earnings of:			
<b>a</b> The organization?	<b>6a</b>		No
<b>b</b> Any related organization?	<b>6b</b>		No
If "Yes," on line 6a or 6b, describe in Part III.			
<b>7</b> For persons listed on Form 990, Part VII, Section A, line 1a, did the organization provide any nonfixed payments not described in lines 5 and 6? If "Yes," describe in Part III.	<b>7</b>		No
<b>8</b> Were any amounts reported on Form 990, Part VII, paid or accrued pursuant to a contract that was subject to the initial contract exception described in Regulations section 53.4958-4(a)(3)? If "Yes," describe in Part III.	<b>8</b>		No
<b>9</b> If "Yes" on line 8, did the organization also follow the rebuttable presumption procedure described in Regulations section 53.4958-6(c)?	<b>9</b>		

For each individual whose compensation must be reported on 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) for each listed individual must equal the total amount of Form 990, Part VII, Section A, line 1a, applicable column (D) and (E) amounts for that individual.

[illegible]

**Part III Supplemental Information**

Provide the information, explanation, or descriptions required for Part I, lines 1a, 1b, 3, 4a, 4b, 4c, 5a, 5b, 6a, 6b, 7, and 8, and for Part II. Also complete this part for any additional information.

Return Reference	Explanation
PART I, LINE 1A	SIMR HAS A WRITTEN EMPLOYMENT AGREEMENT WITH DAVID M. CHAO, WHICH PROVIDES FOR TAXABLE TERM LIFE BENEFITS AND FOR HIM TO RECEIVE TAX GROSS-UP PAYMENTS SUFFICIENT TO COVER THE TAXES ON THESE BENEFITS.
PART I, LINE 1B	SIMR PROVIDED THE BENEFITS DESCRIBED IN RESPONSE TO LINE 1A PURSUANT TO WRITTEN EMPLOYMENT CONTRACTS THAT WAS APPROVED BY SIMR'S GOVERNING BOARD. SEE RESPONSE TO FORM 990, PART VI, SECTION B, LINE 15, FOR ADDITIONAL PROCESSES RELATED TO DETERMINING EXECUTIVE COMPENSATION.
PART I, LINE 5A	SIMR MADE A PAYMENT OF \$188,931 TO ROBERT E. KRUMLAUF, SCIENTIFIC DIRECTOR. THIS PAYMENT REPRESENTS THE PORTION OF THE NET ROYALTIES RECEIVED BY SIMR FOR LICENSED SCIENTIFIC DISCOVERY TECHNOLOGY THAT IS PAYABLE TO ROBERT E. KRUMLAUF, PH.D., FOR HIS PARTICIPATION IN THE DISCOVERY.
PART II, LINES 4 AND 6	ROBERT KRUMLAUF SERVED AS SIMR'S SCIENTIFIC DIRECTOR THROUGH JUNE 30, 2019, AFTER WHICH HE BECAME SCIENTIFIC DIRECTOR EMERITUS. ALEJANDRO SANCHEZ ALVARADO BECAME SIMR'S SCIENTIFIC DIRECTOR ON JULY 1, 2019.

Additional Data

Software ID:  
Software Version:  
EIN: 20-2993509  
Name: STOWERS INSTITUTE FOR MEDICAL RESEARCH

Form 990, Schedule J, Part II - Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees

(A) Name and Title		(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 in column (B) reported as deferred on prior Form 990
		(i) Base Compensation	(ii) Bonus & incentive compensation	(iii) Other reportable compensation				
1DAVID A WELTE DIRECTOR/SECRETARY	(i)	0	0	0	0	0	0	0
	(ii)	1,368,976	0	56,058	42,000	28,740	1,495,774	0
1RODERICK L STURGEON DIRECTOR/CFO	(i)	0	0	0	0	0	0	0
	(ii)	1,597,472	0	107,511	42,000	22,605	1,769,588	0
2DAVID M CHAO DIRECTOR/PRESIDENT/CEO	(i)	1,360,250	0	9,921	42,000	1,446	1,413,617	0
	(ii)	0	0	0	0	0	0	0
3ROBERT E KRUMLAUF - TO 72019 DIR/SCIENTIFIC DIR EMERITUS	(i)	437,532	0	193,875	42,000	21,105	694,512	0
	(ii)	0	0	0	0	0	0	0
4RICHARD W BROWN DIRECTOR/CHAIR	(i)	0	0	0	0	0	0	0
	(ii)	2,516,009	0	27,489	42,000	19,830	2,605,328	0
5ALEJANDRO SANCHEZ ALVARADO DIR/SCIENTIFIC DIR FROM 7/2019	(i)	153,849	0	361	16,350	401	170,961	0
	(ii)	0	0	0	0	0	0	0
6BRENT KREIDER CHIEF OPERATING OFFICER	(i)	0	0	0	0	0	0	0
	(ii)	607,808	0	8,844	0	25,223	641,875	0
7RONALD C CONAWAY INVESTIGATOR	(i)	309,629	0	3,564	42,000	1,446	356,639	0
	(ii)	0	0	0	0	0	0	0
8JOAN W CONAWAY INVESTIGATOR	(i)	307,562	0	3,564	42,000	19,863	372,989	0
	(ii)	0	0	0	0	0	0	0
9JERRY L WORKMAN INVESTIGATOR	(i)	369,979	0	3,564	42,000	12,043	427,586	0
	(ii)	0	0	0	0	0	0	0
10R SCOTT HAWLEY INVESTIGATOR	(i)	368,456	0	4,191	42,000	19,908	434,555	0
	(ii)	0	0	0	0	0	0	0
11LINHENG LI INVESTIGATOR	(i)	272,474	0	3,564	40,871	1,446	318,355	0
	(ii)	0	0	0	0	0	0	0

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, line 38a or 40b.  
▶ Attach to Form 990 or Form 990-EZ.  
▶ Go to [www.irs.gov/Form990](http://www.irs.gov/Form990) for instructions and the latest information.

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Part I Excess Benefit Transactions (section 501(c)(3), section 501(c)(4), and section 501(c)(29) 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) Relationship between disqualified person and organization	(c) Description of transaction	(d) Corrected?	
				Yes	No

2 Enter the amount of tax incurred by 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-EZ, Part V, line 38a, or Form 990, Part IV, line 26, or if the organization reported an amount on Form 990, Part X, line 5, 6, or 22

(a) Name of interested person	(b) Relationship with organization	(c) Purpose of loan	(d) Loan to or from the organization?		(e) Original principal amount	(f) Balance due	(g) In default?		(h) Approved by board or committee?		(i) Written agreement?	
			To	From			Yes	No	Yes	No	Yes	No

Total ▶ \$

Part III Grants or Assistance Benefiting 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 assistance	(d) Type of assistance	(e) Purpose 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
(1) JULIA ZEITLINGER PHD	SEE PART V	263,391	EMPLOYEE OF SIMR		No
(2) LEANNE WIEDEMANN PHD	SEE PART V	267,756	EMPLOYEE OF SIMR		No
(3) TATJANA PIOTROWSKI PHD	SEE PART V	251,012	EMPLOYEE OF SIMR		No

**Part V Supplemental Information**

Provide additional information for responses to questions on Schedule L (see instructions)

Return Reference	Explanation
PART IV, LINES (1) , (2) & (3)	JULIA ZEITLINGER, PH D, IS THE SPOUSE OF DAVID M CHAO, PRESIDENT OF SIMR MS ZEITLINGER IS AN ASSOCIATE INVESTIGATOR AT SIMR MS ZEITLINGER'S PREVIOUS EMPLOYMENT BEFORE SIMR WAS WITH THE WHITEHEAD INSTITUTE FOR MEDICAL RESEARCH WHERE SHE WAS THE RECIPIENT OF A PREDOCTORAL FELLOWSHIP FROM THE HUMAN FRONTIER SCIENCE PROGRAM LEANNE WIEDMANN, PH D, IS THE SPOUSE OF ROBERT KRUMLAUF, SCIENTIFIC DIRECTOR EMERITUS OF SIMR MS WIEDEMANN PERFORMS INDEPENDENT SCIENCE RESEARCH AT SIMR AND IS CONCURRENTLY A PROFESSOR AT THE UNIVERSITY OF KANSAS MEDICAL CENTER IN THE DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE TATJANA PIOTROWSKI, PH D, IS THE SPOUSE OF ALEJANDRO SANCHEZ ALVARADO, DIRECTOR AND SCIENTIFIC DIRECTOR OF SIMR AS OF JULY 2019 MS PIOTROWSKI IS AN INVESTIGATOR AT SIMR HER PREVIOUS EMPLOYMENT BEFORE SIMR WAS WITH THE UNIVERSITY OF UTAH'S SCHOOL OF MEDICINE WHERE SHE WAS AN ASSOCIATE PROFESSOR IN THE DEPARTMENT OF NEUROBIOLGOY AND ANATOMY

SCHEDULE M  
(Form 990)

Department of the Treasury  
Internal Revenue Service

Noncash Contributions

►Complete if the organizations answered "Yes" on Form 990, Part IV, lines 29 or 30.  
► Attach to Form 990.  
►Go to [www.irs.gov/Form990](http://www.irs.gov/Form990) for the latest information.

OMB No 1545-0047

2019

Open to Public Inspection

Name of the organization  
STOWERS INSTITUTE FOR MEDICAL RESEARCH

Employer identification number  
20-2993509

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 noncash 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 .	X	3	63,100,000	FAIR MARKET VALUE
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 ► ( _____ )				
26 Other ► ( _____ )				
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

29

30a

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

Yes

No

30a

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 nonstandard contributions?

Yes

31

32a

Does the organization hire or use third parties or related organizations to solicit, process, or sell noncash contributions?

No

32a

No

b If "Yes," describe in Part II

33

If the organization didn't report an amount in column (c) for a type of property for which column (a) is checked, describe in Part II



**Part II** **Supplemental Information.** Provide the information required by Part I, lines 30b, 32b, and 33, and whether the organization is reporting in Part I, column (b), the number of contributions, the number of items received, or a combination of both. Also complete this part for any additional information.

Return Reference	Explanation
PART I, COLUMN B	THE AMOUNTS SHOWN IN PART I, COLUMN (B) FOR "NUMBER OF CONTRIBUTIONS" REPRESENTS THE TOTAL NUMBER OF CONTRIBUTIONS AND NOT NECESSARILY THE TOTAL NUMBER OF ITEMS CONTRIBUTED

efile GRAPHIC print - DO NOT PROCESS		As Filed Data -	DLN: 93493230032500
<b>SCHEDULE O</b> (Form 990 or 990-EZ)	<b>Supplemental Information to Form 990 or 990-EZ</b> Complete to provide information for responses to specific questions on Form 990 or 990-EZ or to provide any additional information. ▶ Attach to Form 990 or 990-EZ. ▶ Go to <u><a href="http://www.irs.gov/Form990">www.irs.gov/Form990</a></u> for the latest information.		OMB No 1545-0047
			<b>2019</b>
Department of the Treasury			<b>Open to Public Inspection</b>
Name of the organization STOWERS INSTITUTE FOR MEDICAL RESEARCH		Employer identification number  20-2993509	

**990 Schedule O, Supplemental Information**

Return Reference	Explanation
PART III, LINE 1	<p>THE STOWERS INSTITUTE FOR MEDICAL RESEARCH ("SIMR") PERFORMS MEDICAL RESEARCH IN THE PUBLIC INTEREST WITH THE GOAL OF EXPANDING THE UNDERSTANDING OF FUNDAMENTAL PROCESSES IN LIVING CELLS AND IMPROVING LIFE'S QUALITY THROUGH INNOVATIVE APPROACHES TO THE CAUSES, TREATMENT, AND PREVENTION OF DISEASE. PART III, LINE 4. SIMR'S ACCOMPLISHMENTS ARE DESCRIBED AT THE END OF SCHEDULE O. PART VI, LINE 2. VIRGINIA G. STOWERS, JONATHAN THOMAS, RICHARD W. BROWN, DAVID A. WELTE, DAVID M. CHAO, ALBERZINE FREEMAN, AND ALEJANDRO SANCHEZ ALVARADO, ALL DIRECTORS OF SIMR, HAVE A BUSINESS RELATIONSHIP. JONATHAN THOMAS, RICHARD W. BROWN, DAVID A. WELTE, DAVID M. CHAO, RODERICK L. STURGEON, AND ALBERZINE FREEMAN, DIRECTORS OF SIMR, AND D. BRENT KREIDER, OFFICER OF SIMR, HAVE A BUSINESS RELATIONSHIP. DAVID A. WELTE, RICHARD W. BROWN, AND RODERICK L. STURGEON, DIRECTORS OF SIMR, AND BRENT KREIDER, OFFICER OF SIMR, HAVE A BUSINESS RELATIONSHIP. PART VI, LINE 11B. THE DATA AND INFORMATION NECESSARY TO PREPARE SIMR'S FORM 990 WAS COMPILED BY SIMR'S ACCOUNTING DEPARTMENT AND THEN REVIEWED BY THE INSTITUTE'S TAX ATTORNEY AT BRYAN CAVE LEIGHTON PAISNER, LLP. PRICEWATERHOUSECOOPERS ("PWC"), THE INSTITUTE'S EXTERNAL TAX PREPARERS, USED THIS INFORMATION TO PREPARE THE FORM 990. THE COMPLETED FORM 990, INCLUDING REQUIRED SCHEDULES, IS REVIEWED BY THE OFFICERS OF SIMR BEFORE IT IS FILED WITH THE IRS. AFTER THE PREPARATION AND REVIEW PROCESS DESCRIBED ABOVE, THE FORM 990, INCLUDING REQUIRED SCHEDULES, IS PROVIDED TO EACH VOTING MEMBER OF THE ORGANIZATION'S BOARD BEFORE IT IS FILED WITH THE IRS. PART VI, LINE 12C. SIMR HAS ADOPTED A "CONFLICTS OF INTEREST AND DIRECTOR INDEPENDENCE POLICY." EACH DIRECTOR, OFFICER, AND ALL OTHER PERSONS IN A POSITION TO EXERCISE SUBSTANTIAL INFLUENCE OVER DECISIONS OF SIMR ARE REQUIRED TO ANNUALLY COMPLETE AND SIGN A DISCLOSURE STATEMENT THAT IS PART OF THE POLICY. A COVERED PERSON MUST ALSO DISCLOSE THE EXISTENCE OF A POTENTIAL CONFLICT AND ALL MATERIAL FACTS TO THE GOVERNING BOARD AS SOON AS THE PERSON HAS KNOWLEDGE THAT A POTENTIAL CONFLICT MIGHT EXIST. SIMR CONDUCTS PERIODIC AND ADHOC REVIEWS OF TRANSACTIONS AND AGREEMENTS TO ENSURE THAT IT ENGAGES ONLY IN ACTIVITIES THAT ARE CONSISTENT WITH ITS TAX-EXEMPT PURPOSE. FORM 990, PART VI, LINE 15A. THE COMPENSATION FOR DAVID CHAO, THE PRESIDENT AND CEO OF SIMR, WAS ESTABLISHED PURSUANT TO THE PROCEDURES OF TREAS. REG. SECTION 53.4958-6, INCLUDING (1) REVIEW AND APPROVAL BY SIMR'S COMPENSATION COMMITTEE COMPRISED OF INDEPENDENT PERSONS, (2) RELYING ON COMPARABILITY DATA, INCLUDING DATA PREPARED BY A NATIONALLY KNOWN COMPENSATION CONSULTANT REGARDING COMPARABLE SALARY AND BENEFITS FOR SIMILARLY QUALIFIED PERSONS IN FUNCTIONALLY COMPARABLE POSITIONS AT SIMILARLY SITUATED ORGANIZATIONS, AND (3) CONTEMPORANEOUS DOCUMENTATION AND RECORD KEEPING OF THE DELIBERATION AND DECISIONS REGARDING THE COMPENSATION ARRANGEMENT. THIS PROCESS WAS LAST UNDERTAKEN IN 2019. PART VI, LINE 19. SIMR'S GOVERNING DOCUMENTS, CONFLI</p>

**990 Schedule O, Supplemental Information**

Return Reference	Explanation
PART III, LINE 1	<p>CT OF INTEREST POLICY, AND FINANCIAL STATEMENTS ARE AVAILABLE UPON REQUEST PART VII, SECTION A, COLUMN B DAVID M CHAO, OFFICER OF SIMR, AND R SCOTT HAWLEY, EMPLOYEE OF SIMR, ALSO PERFORM SUPPORT SERVICES FOR ONE OR MORE OF THE RELATED ORGANIZATIONS DISCLOSED IN SCHEDULE R THESE SERVICES ARE PERFORMED IN THEIR ROLE AS SIMR EMPLOYEES AND SIMR IS REIMBURSED BY THE RELATED ORGANIZATIONS PART VII, SECTION B SIMR RECEIVES INVESTMENT MANAGEMENT SERVICES FROM AMERICAN CENTURY INVESTMENTS ("ACI") ACI IS A WHOLLY OWNED SUBSIDIARY OF AMERICAN CENTURY COMPANIES, INC ("ACCI") IN SELECTING ACI TO MANAGE ITS LIQUID INVESTMENTS, SIMR NOT ONLY CHOSE A HIGH QUALITY MUTUAL FUND COMPANY WITH AN OUTSTANDING TRACK RECORD, BUT ALSO PLACED ITS LIQUID INVESTMENTS IN A COMPANY IN WHICH IT OWNS STOCK AND RECEIVES DIVIDENDS SIMR PAYS ACI THE SAME ADMINISTRATIVE FEES FOR THESE SERVICES AS ANY ARMS-LENGTH INVESTOR THOSE INVESTMENT FEES FOR A SHARED INVESTMENT POOL ARE PAID BY ITS SUPPORTING ORGANIZATION, STOWERS RESOURCE MANAGEMENT PART XI, LINE 9 OTHER CHANGES IN NET ASSETS INCLUDE THE FOLLOWING CHANGE IN ANNUITY RECEIVABLE, NET (\$234,502)</p>

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PART III, LINE 4A	<p>2019 PROGRAM SERVICE ACCOMPLISHMENTS THE STOWERS INSTITUTE FOR MEDICAL RESEARCH ("SIMR") IS A PRIVATE, NONPROFIT MEDICAL RESEARCH ORGANIZATION. SIMR WAS FOUNDED IN 1994 BY JIM AND VIRGINIA STOWERS, WHO EACH SURVIVED A BOUT WITH CANCER AND SUBSEQUENTLY DEDICATED THEIR FORTUNE TO SUPPORTING BASIC RESEARCH IN CELL AND MOLECULAR BIOLOGY THAT WILL PROVIDE LONG-TERM SOLUTIONS TO HUMAN DISEASES. SIMR CONDUCTS BASIC BIOMEDICAL RESEARCH IN THE PUBLIC INTEREST THAT WILL ULTIMATELY PROVIDE A GREATER UNDERSTANDING OF THE GENES AND PROTEINS THAT CONTROL HOW CELLS IN OUR BODIES MULTIPLY, FORM TISSUES, AND DIE. STUDYING THE BASIC BIOLOGY OF CELLS ENABLES SCIENTISTS TO DISCOVER HOW GENES CAUSE MANY DISEASES, INCLUDING CANCER, BIRTH DEFECTS, AND DEMENTIA. HISTORY HAS SHOWN THAT BASIC MEDICAL RESEARCH IS OFTEN A KEY FIRST STEP IN THE DEVELOPMENT OF NEW TREATMENTS, CURES, AND PREVENTIONS FOR MANY HUMAN DISEASES. 2019 NOTABLE RESEARCH RESULTS IN 2019, SIMR RESEARCH TEAMS MADE DISCOVERIES MERITING PUBLICATION IN LEADING PEER-REVIEWED SCIENTIFIC JOURNALS - 74 ORIGINAL RESEARCH PAPERS IN ALL. SIMR RESEARCH TEAMS ALSO PRODUCED 34 OTHER PUBLICATIONS INCLUDING REVIEWS, COMMENTARIES, BOOK CHAPTERS, AND BOOKS. SOME OF THE HIGHLIGHTS AMONG THESE PAPERS AND OTHER ADVANCES INVOLVING STOWERS RESEARCH INCLUDE THE FOLLOWING: THE KRUMLAUF LAB HELPED LAY THE GROUNDWORK FOR A NEW APPROACH TO TREATING OSTEOPOROSIS WITH AN UNEXPECTED DISCOVERY MADE NEARLY TWO DECADES AGO. AFTER UNCOVERING A MECHANISM THAT CONTROLS BONE GROWTH, THEIR WORK WAS PATENTED AND THE INTELLECTUAL PROPERTY LICENSED TO AMGEN IN 2005. AMGEN USED THAT FINDING AS WELL AS OTHERS' RESEARCH ABOUT BONE GROWTH TO DEVELOP A NEW DRUG, ROMOSOZUMAB. TWO PHASE 3 CLINICAL TRIALS SHOWED A SIGNIFICANT REDUCTION OF FRACTURES. THE DRUG ALSO INCREASED BONE DENSITY IN THE SPINES OF STUDY PARTICIPANTS BY AROUND 15%. ROMOSOZUMAB, THE FIRST NEW DRUG AIDED BY RESEARCH FROM SIMR, WAS APPROVED BY THE US FOOD AND DRUG ADMINISTRATION IN JANUARY 2019. THE LI LAB PUBLISHED A STUDY DESCRIBING HOW BLOOD-FORMING ADULT STEM CELLS REPOPULATE AFTER CHEMOTHERAPY. THESE CELLS, CALLED "RESERVE" HEMATOPOIETIC STEM CELLS, RESIDE IN BONE MARROW. THEY ARE RESPONSIBLE FOR REGENERATING THE BODY'S BLOOD SUPPLY, REPOPULATING AFTER CHEMOTHERAPY OR INJURY DEPLETES THEIR NUMBERS. THE FINDINGS MAY OPEN NEW AVENUES FOR TREATING BLOOD DISEASES LIKE LEUKEMIA AND AUTOIMMUNE DISORDERS. THE STUDY WAS PUBLISHED ONLINE JANUARY 15, 2019, IN CELL REPORTS. THE WASHBURN LAB CREATED A TOPOLOGICAL SCORING (TOPS) ALGORITHM, WHICH ALLOWS SCIENTISTS TO LOOK AT BIG SETS OF DATA IN NEW WAYS. THIS HELPS SCIENTISTS UNCOVER MORE DETAILS ABOUT HOW PROTEINS INTERACT AND UNDERSTAND HOW CERTAIN ACTIVITIES ON THE CELLULAR LEVEL HAPPEN. THE REPORT WAS PUBLISHED IN THE MARCH 8, 2019, ISSUE OF NATURE COMMUNICATIONS. THE BAZZINI LAB SHOWED THAT IN HUMAN CELL LINES, RIBOSOMES PLAY AN ACTIVE ROLE IN REGULATING MRNAS - THE MESSAGES THAT RIBOSOMES READ TO MAKE PROTEINS. THE STUDY ALSO PROVIDES EV.</p>

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PART III, LINE 4A	<p> IDENCE FOR ANOTHER LAYER OF INFORMATION WITHIN THE MESSAGES THAT CAN AFFECT MRNA LEVELS AND STABILITY UNDERSTANDING THE REGULATORY FUNCTION OF RIBOSOMES IN MODULATING GENE EXPRESSION IN HUMAN CELLS CAN PROVIDE INSIGHT ABOUT CAUSES OF GENE MISREGULATION, WHICH CAN SOMETIMES LEAD TO HUMAN DISEASES THE FINDINGS WERE PUBLISHED ONLINE APRIL 23, 2019, IN ELIFE THE GERTON LAB UNCOVERED AN ANSWER TO A CENTURIES-OLD QUESTION OF HOW CONNECTIONS BETWEEN PARTICULAR HUMAN CHROMOSOMES MIGHT BE BUILT THESE INTER-CHROMOSOMAL CONNECTIONS ARE COMPOSED OF RIBOSOMAL DNA WITH A SHARED SEQUENCE THE FINDINGS SUGGEST THAT THE CONNECTIONS ARE CONTROLLED BY THE PROXIMITY OF THE CHROMOSOMES IN THREE-DIMENSIONAL SPACE AND THEIR TRANSCRIPTION, WHICH TOGETHER ALLOW CHROMOSOMES TO BUMP INTO EACH OTHER AND BECOME INTERLOCKED THE FINDINGS COULD PROVIDE CLUES ABOUT THE ORIGINS OF CHROMOSOMAL FUSIONS ASSOCIATED WITH INFERTILITY AND DEVELOPMENTAL DISORDERS IN HUMANS THE ARTICLE WAS PUBLISHED JULY 23, 2019, IN THE JOURNAL OF CELL BIOLOGY THE GIBSON LAB PUBLISHED RESEARCH HIGHLIGHTING THE IMPORTANCE OF UNIFORM CELL SIZE IN MAINTAINING THE ARCHITECTURE OF EPITHELIAL SHEETS ABNORMALLY SMALL EPITHELIAL CELLS CAN DISSOCIATE FROM EACH OTHER AND DISPERSE AMONG NORMAL CELLS A SERIES OF EXPERIMENTS SHOWED THAT ABNORMAL SMALL-CELL DISPERSAL RESULTS FROM GEOMETRIC EFFECTS OF CELL SIZE VARIATION ON EPITHELIAL PACKING THESE FINDINGS MAY FURTHER THE UNDERSTANDING OF HUMAN DISEASE PROGRESSION THE STUDY WAS PUBLISHED ONLINE SEPTEMBER 5, 2019, IN DEVELOPMENTAL CELL THE HAWLEY LAB DISCOVERED MORE DETAILS ABOUT HOW THE SYNAPTONEMAL COMPLEX IN MEIOSIS PERFORMS ITS JOB THIS LARGE PROTEIN COMPLEX IS A CRITICAL PLAYER IN THE SEGREGATION OF CHROMOSOMES DURING MEIOSIS EXPERIMENTS INDICATED THAT THE X CHROMOSOME OF THE FRUIT FLY IS SENSITIVE TO DEFECTS IN THE STRUCTURE OF THE SYNAPTONEMAL COMPLEX, WITH EFFECTS VARYING DEPENDING PARTLY ON THE STAGE OF MEIOSIS THE RESEARCH MAY HELP FURTHER UNDERSTANDING OF THE CAUSES OF HUMAN MISCARRIAGE THE WORK WAS PUBLISHED ONLINE SEPTEMBER 30, 2019, IN THE PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES THE WASHBURN LAB UNCOVERED NEW DETAILS ABOUT SEVERAL PROTEINS IMPLICATED IN CANCER THE RESEARCH FOCUSED ON THE SMAD4, A TRANSCRIPTION FACTOR THAT NORMALLY SUPPRESSES TUMOR GROWTH, AND A PROTEIN CALLED BRK THAT BINDS TO SMAD4 AND LEADS TO ITS BREAKDOWN THEIR WORK EXAMINED THE PROTEINS IN HUMAN CELL LINES INCLUDING BREAST CELL CANCER TYPES AND SUGGESTED THAT TREATMENTS TARGETING BRK, WHICH IS PRESENT IN MORE THAN 85 PERCENT OF BREAST CANCER TUMORS, COULD HELP REDUCE OR STOP TUMOR GROWTH THE STUDY WAS PUBLISHED ONLINE OCTOBER 23, 2019, IN SCIENCE ADVANCES COMPREHENSIVE LISTS OF 2019 ORIGINAL RESEARCH PAPERS, REVIEWS, COMMENTARIES, CHAPTERS, AND BOOKS ORIGINAL RESEARCH PAPERS </p>

Return Reference	Explanation
1 EFFICIENT DEPLETION OF RIBOSOMAL RNA FOR SEQUENCING IN	<p>PLANARIANS KIM IV,ROSS EJ, DIETRICH S, DORING K, SNCHEZ ALVARADO A, KUHN CD BMC GENOMICS 2019,20 909 DOI 10 1186/S12864-019-6292-Y 2 BRK PHOSPHORYLATES SMAD4 FOR PROTEASOMAL DEGRADATION AND INHIBITS TUMOR SUPPRESSOR FRK TO CONTROL SNAIL, SLUG AND METASTATIC POTENTIAL MIAH S, BANKS CAS,OGUNBOLUDE Y, BAGU ET, BERG JM, SARAF A, TETTEY TT, HATTEM G, DAYEB GADOH G, KEMPF CG, SARDIU M, NAPPER S, FLORENS L, LUKONG KE, WASHBURN MP SCI ADV 2019,5 E AAW3113 DOI 3110 1126/SCIADV AAW3113 3 PLANARIANS RECRUIT PIRNAS FOR MRNA TURNOVER IN ADULT STEM CELLS KIM IV, DUNCAN EM, ROSS EJ, GORBOVYTSKA V, NOWOTARSKI SH, ELLIOTT SA, SNCHEZ ALVARADO A, KUHN CD GENES DEV 2019,33 1575-1590 4 AN ADULT BRAIN ATLAS REVEALS BRO AD NEUROANATOMICAL CHANGES IN INDEPENDENTLY EVOLVED POPULATIONS OF MEXICAN CAVEFISH LOOMI S C, PEUSS R, JAGGARD JB, WANG Y,MCKINNEY S, RAFTOPOULOS A, RAFTOPOULOS S, WHU D, GREEN MR , MCGAUGH SE, ROHNER NE, KEENE AC, DUBOUE ER FRONT NEUROANAT 2019,13 88 DOI 10 3389/FNANA 2019 00088 5 X CHROMOSOME AND AUTOSOMAL RECOMBINATION ARE DIFFERENTIALLY SENSITIVE TO DISRUPTIONS IN SC MAINTENANCE BILLMYRE KK, CAHOON CK, HEENAN GM, WESLEY ER, YU Z,UNRUH JR, TAKEO S, HAWLEY RS PROC NATL ACAD SCI U S A 2019,116 21641-21650 6 AN ATLAS OF TRANSCRIPTION FACTORS EXPRESSED IN MALE PUPAL TERMINALIA OF DROSOPHILA MELANOGASTER VINCENT BJ, RICE GR, WONG GM, GLASSFORD WJ, DOWNS KI, SHASTAY JL, CHARLES-OB I K, NATARAJAN M, GOGO L M, ZEITLINGER J, REBEIZ M G3(BETHESDA) 2019 DOI 10 1534/G3 119 400788 7 DEFINING THE EXPRESSION OF PIRNA AND TRANSPOSABLE ELEMENTS IN DROSOPHILA OVARIAN GERMLINE STEM CELLS AND SOMATIC SUPPORT CELLS STORY B, MA X, ISHIHARA K, LI H, HALL K, PEAK A, ANOJA P, PARK J, HAUG J, BLANCHETTE M, XIE T LIFE SCI ALLIANCE 2019,2 E201800211 DOI 10 26508/LSA 20 1800211 8 EVOLUTIONARY ORIGIN AND NOMENCLATURE OF VERTEBRATE WNT11-FAMILY GENES POSTLETH WAIT JH, NAVAJAS ACEDO J, PIOTROWSKI T ZEBRAFISH 2019,16 469-476 9 PERTURBED CRANIAL NEURAL CREST CELL DEVELOPMENT IN ASSOCIATION WITH REDUCED SONIC HEDGEHOG SIGNALING UNDERLIES THE PATHOGENESIS OF RETINOIC-ACID-INDUCED CLEFT PALATE WANG Q, KUROSAKA H, KIKUCHI M, NAKAYA A, TRAINOR PA, YAMASHIRO T DIS MODEL MECH 2019,12 10 EXPERIMENTAL EVOLUTION OF IMMUNOLOGICAL SPECIFICITY FERRO K, PEUSS R, YANG W,ROSENSTIEL P, SCHULENBURG H, KURTZ J [PUBLISHED AHEAD OF PRINT SEPTEMBER 23 2019] PNAS 2019 11 PROTRUSION MEMBRANE PEARLING EMERGES DURING THREE-DIMENSIONAL CELL DIVISION CABALLERO D, MENDES PINTO I, RUBINSTEIN B, SAMITIER J PHYS BIOL 2019 12 DNA-DEPENDENT PROTEIN KINASE CATALYTIC SUBUNIT (DNA-PKCS) CONTRIBUTES TO INCORPORATION OF HISTONE VARIANT H2A.Z INTO NUCLEOSOMES WANG LY, HE YX, LI M,DING J, SUI Y, CONAWAY JW, CONAWAY RC, WANG F, JIN J, CAI Y PROTEIN CELL 2019,10 694- 699 13 IDENTIFICATION OF A NUCLEAR LOCALIZATION SIGNAL AND IMPORTIN BETA MEMBERS MEDIATING NUCLEAR IMPORT INHIBITED BY OXIDATIVE STRESS PALMA M, RIFFO EN,SUGANUMA T, WASHBURN MP, WORKMAN JL, PINCHEIRA</p>

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1 EFFICIENT DEPLETION OF RIBOSOMAL RNA FOR SEQUENCING IN	<p>R, CASTRO AF J CELL BIOCHEM 2019,120 16088-16107 14 CELL-SIZE PLEOMORPHISM DRIVES ABERRANT CLONE DISPERSAL IN PROLIFERATING EPITHELIA RAMANATHAN SP, KRAJNC M, GIBSON MC DEV CELL 2019,51 49-61 E44 15 PCP AND WNT PATHWAY COMPONENTS ACT IN PARALLEL DURING ZEBRAFISH MECHANOSENSORY HAIR CELL ORIENTATION NAVAJAS ACEDO J, VOAS MG, ALEXANDER R, WOOLLEY T, UNRUH JR, LI H, MOENS C, PIOTROWSKI T NAT COMMUN 2019,10 3993 DOI 3910 1038/S41467-41019-12005-Y 16 BIOCHEMICAL REDUCTION OF THE TOPOLOGY OF THE DIVERSE WDR76 PROTEIN INTERACTOME DAYEBGADOH G, SARDIU ME, FLORENS L, WASHBURN MP J PROTEOME RES 2019,18 3479-3491 17 GENERATING TOPOLOGICAL PROTEIN INTERACTION SCORES AND DATA VISUALIZATION WITH TOPS SARDI U M, FLORENS L, WASHBURN MP [PUBLISHED AHEAD OF PRINT SEPTEMBER 3 2019] METHODS 2019 18 CLUSTERMAP COMPARE MULTIPLE SINGLE CELL RNA-SEQ DATASETS ACROSS DIFFERENT EXPERIMENTAL CONDITIONS GAO X, HU D, GOGOL M, LI H BIOINFORMATICS 2019,35 3038-3045 19 AN ATLAS OF ANTERIOR HOX GENE EXPRESSION IN THE EMBRYONIC SEA LAMPREY HEAD HOXCODE EVOLUTION IN VERTEBRATES PARKER HJ, BRONNER ME, KRUMLAUF R DEV BIOL 2019,453 19-33 20 STABLE TRANSGENE SIS IN ASTYANAX MEXICANUS USING THE TOL2 TRANSPOSASE SYSTEM STAHL BA, PEUSS R, MCDOLE B, KENZIOR A, JAGGARD JB, GAUDENZ K, KRISHNAN J, MCGAUGH SE, DUBOUE ER, KEENE AC, ROHNER N DEVDYN 2019,248 679-687 21 THE E3 UBIQUITIN LIGASE SPOP CONTROLS RESOLUTION OF SYSTEMIC INFLAMMATION BY TRIGGERING MYD88 DEGRADATION GUILLAMOT M, OUAZIA D, DOLGALEV I, YEUNG ST, KOURTIS N, DAI Y, CORRIGAN K, ZEA-REDONDO L, SARAF A, FLORENS L, WASHBURN MP, TIKHONOVA AN, MALUMBRES M, GONG Y, TSIRIGOS A, PARK C, BARBIERI C, KHANNA KM, BUSINO L, AIFANTIS I NAT IMMUNOL 2019,20 1196-1207 22 A CONSERVED REGULATORY PROGRAM INITIATES LATERAL PLATE MESODERM EMERGENCE ACROSS CHORDATES PRUMMEL KD, HESS C, NIEUWENHUIZE S, PARKER HJ, ROGERS KW, KOZMIKOVA I, RACIOPPI C, CBE, CZARKWIANI A, KNAPP D, BURGER S, CHIAVACCI E, SHAH G, BURGER A, HUISKEN J, YUN M, CHRISTIAEN L, KOZMIK Z, CHRISTIAEN L, MULLER P, BRONNER M, KRUMLAUF R, MOSIMANN C NAT COMMUN 2019,10 E3857 DOI 3810 1038/S41467-41019-11561-41467 23 MEASURING SIMILARITY BETWEEN GENE INTERACTION PROFILES BARIDO-SOTTANI J, CHAPMAN SD, KOSMAN E, MUSHEGIAN AR BMC BIOINFORMATICS 2019,20 435 DOI 410 1186/S12859-12019-13024-X 24 COMPARISON OF BLEACHING PROTOCOLS UTILIZING HEMATOXYLIN AND EOSIN STAIN AND IMMUNOHISTOCHEMICAL PROLIFERATION MARKER MCM3 IN PIGMENTED MELANOMAS JORDAN T, WILLIAMS D, CRISWELL S, WANG Y [PUBLISHED AHEAD OF PRINT AUGUST 17 2019] J HISTOTECHNOL 2019 1-6 25 ALKALINE PHOSPHATASE-BASED CHROMOGENIC AND FLUORESCENCE DETECTION METHOD FOR BASESCOPE IN SITU HYBRIDIZATION WANG Y, XU W, MADDERA L, TSUCHIYA D, THOMAS N, YU CR, PARMELY T [PUBLISHED AUGUST 17 2019] J HISTOTECHNOL 2019 1-9 26 WNT AND TGF-<math>\beta</math> COORDINATE GROWTH AND PATTERNING TO REGULATE SIZE-DEPENDENT BEHAVIOR ARNOLD CP, BENHAM-PYLE BW, LANGE JJ, WOOD CJ, SANCHEZ ALVARADO A NATURE 2019,572 655-</p>



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1 EFFICIENT DEPLETION OF RIBOSOMAL RNA FOR SEQUENCING IN	<p>659 27 DETECTING AND CHARACTERIZING PROTEIN SELF-ASSEMBLY IN VIVO BY FLOW CYTOMETRY VENK ATESAN S, KANDOLA TS, RODRIGUEZ-GAMA A, BOX A, HALFMANN R J VIS EXP 2019,149 E59577 DOI 59510 53791/59577 28 FILLING IN THE PHYLOGENETIC GAPS INDUCTION, MIGRATION AND DIFFERENTIATION OF NEURAL CREST CELLS IN A SQUAMATE REPTILE, THE VEILED CHAMELEON (CHAMAELEO CALYPTRATUS) DIAZ RE, JR , SHYLO NA, ROELLIG D, BRONNER M, TRAINOR PA DEV DYN 2019,248 709-72 7 29 THE TRANSCRIPTOME OF THE VEILED CHAMELEON (CHAMAELEO CALYPTRATUS) A RESOURCE FOR STUDYING THE EVOLUTION AND DEVELOPMENT OF VERTEBRATES PINTO BJ, CARD DC, CASTOE TA, DIAZ R E, JR , NIELSEN SV, TRAINOR PA, GAMBLE T DEV DYN 2019,248 702-708 30 RUNX PROTEINS DESENSITIZE MULTIPLE MYELOMA TO LENALIDOMIDE VIA PROTECTING IKZF5 FROM DEGRADATION ZHOU N, GUTIERREZ-UZQUIZA A, ZHENG XY, CHANG R, VOGL DT, GARFALL AL, BERNABEI L, SARAF A, FLORENS L, WASHBURN MP, ILLENDULA A, BUSHWELLER JH, BUSINO L LEUKEMIA 2019,33 2006-2021 31 ATAXIN -7 AND NON-STOP COORDINATE SCAR PROTEIN LEVELS, SUBCELLULAR LOCALIZATION, AND ACTIN CYTOSKELETON ORGANIZATION CLOUD V, THAPA A, MORALES-SOSA P, MILLER T, MILLER SA, HOLSAPPLE D, GERHART P, MOMTAHAN E, JACK JL, LEIVA E, RAPP SR, SHELTON LG, PIERCE RA, MARTIN-BROWN S, FLORENS L, WASHBURN MP, MOHAN RD ELIFE 2019,8 DOI 10 7554/ELIFE 49677 32 STRUCTURES OF AUTOINHIBITED AND POLYMERIZED FORMS OF CARD9 REVEAL MECHANISMS OF CARD9 AND CARD11 ACTIVATION HOLLIDAY MJ, WITT A, RODRIGUEZ GAMA A, WALTERS BT, ARTHUR CP, HALFMANN R, ROHOU A, DUEBER EC, FAIRBROTHER WJ NAT COMMUN 2019,10 3070 DOI 10 1038/S41467-019-10953-Z 33 COMPREHENSIVE SINGLE-CELL TRANSCRIPTOME LINEAGES OF A PROTO-VERTEBRATE CAO C, LEMAIRE LA, WANG W, YOON PH, CHOI YA, PARSONS LR, MATESE JC, WANG W, LEVINE M, CHEN K NATURE 2019,571 349-35 4</p>

Return Reference	Explanation
<p>34 AMYLOID-LIKE ASSEMBLY ACTIVATES A PHOSPHATASE IN THE DEVELOPING</p>	<p>DROSOPHILA EMBRYO NIL Z, MILLAN RH, GERBICH T, LEAL P, YU Z, SARAF A, SARDIU M, LANGE JJ, YI K, UNRUH J, SLAUGHTER B, SI K CELL 2019,178 1403-1420 E1421 35 SUPER-RESOLUTION MI CROSCOPY REVEALS LINKAGES BETWEEN RIBOSOMAL DNA ON HETEROLOGOUS CHROMOSOMES POTAPOVA TA, UNRUH JR, YU Z, RANCATI G, LI H, STAMPFER MR, GERTON JL J CELL BIOL 2019,218 2492-2513 36 SIGNATURES OF DIVERGENCE, INVASIVENESS AND TERRESTRALIZATION REVEALED BY FOUR APPLE SNAIL GENOMES SUN J, MU H, IP JCH, LI R, XU T, ACCORSI A, SNCHEZ ALVARADO A, ROSS E, LAN Y, SUN Y, CASTRO-VAZQUEZ A, VEGA IA, HERAS H, ITUARTE S, VAN BOCXLAER B, HAYES KA, COWIE RH, ZHAO Z, ZHANG Y, QIAN PY, QIU JW MOL BIOL EVOL 2019,36 1507-1520 37 P53 AND B-CATENIN EXPRESSION PREDICT POORER PROGNOSIS IN PATIENTS WITH ANAPLASTIC LARGE-CELL LYMPHOMA RICHARDSON AI, YIN CC, CUI W, LI N, MEDEIROS LJ, LI L, ZHANG D CLIN LYMPHOMA MYELOMA LEUK 20 19,19 E385-E392 DOI 310 1016/J CLML 2019 1003 1030 38 THE STOICHIOMETRY OF THE OUTER KINETOCHORE IS MODULATED BY MICROTUBULE-PROXIMAL REGULATORY FACTORS DHATCHINAMOORTHY K, UNRUH JR, LANGE JJ, LEVY M, SLAUGHTER BD, GERTON JL J CELL BIOL 2019,218 2124-2135 39 THE EXOCYST FUNCTIONS IN NICHE CELLS TO PROMOTE GERMLINE STEM CELL DIFFERENTIATION BY DIRECTLY CONTROLLING EGFR MEMBRANE TRAFFICKING MAO Y, TU R, HUANG Y, MAO D, YANG Z, LAU PK, WAN G J, NI J, GUO Y, XIE T DEVELOPMENT 2019,146 DEV174615 DOI 174610 171242/DEV 174615 40 A ROLE FOR FACT IN RNA POLYMERASE II PROMOTER-PROXIMAL PAUSING TETTEY TT, GAO X, SHAO W, STORY BA, CHITSAZAN AD, GLASER RL, SEIDEL CW, CONAWAY RC, ZEITLINGER J, BLANCHETTE M, CONAWAY JW CELL REP 2019,27 3770-3779 E7 41 JUNCTIONAL TUMOR SUPPRESSORS INTERACT WITH 14-3-3 PROTEINS TO CONTROL PLANAR SPINDLE ALIGNMENT NAKAJIMA YI, LEE ZT, MCKINNEY SA, SWANSON SK, FLORENS L, GIBSON MC J CELL BIOL 2019,218 1824-1838 42 STRUCTURE AND FUNCTION OF SPC42 COILED-COILS IN YEAST CENTROSOME ASSEMBLY AND DUPLICATION DRENNAN AC, KRISHNA S, SEEGER MA, ANDREAS MP, GARDNER JM, SETHI EKR, JASPERSEN SL, RAYMENT I MOL BIOL CELL 20 19,30 1505-1522 43 KILLER MEIOTIC DRIVE AND DYNAMIC EVOLUTION OF THE WTF GENE FAMILY EICKBUSH MT, YOUNG JM, ZANDERS SE MOL BIOL EVOL 2019,36 1201-1214 44 GAMETE COLLECTION AND IN VITRO FERTILIZATION OF ASTYANAX MEXICANUS PEUSS R, ZAKIBE Z, KRISHNAN J, MERRYMAN MS, BAUMANN DP, ROHNER N J VIS EXP 2019 DOI 10 3791/59334 45 DOWNREGULATION OF FGF SIGNALING BY SPRY4 OVEREXPRESSION LEADS TO SHAPE IMPAIRMENT, ENAMEL IRREGULARITIES, AND DELAYED SIGNALING CENTER FORMATION IN THE MOUSE MOLAR MARANGONI P, CHARLES C, AHN Y, SEIDEL K, JHEON A, GANSS B, KRUMLAUF R, VIRIOT L, KLEIN OD JBMR PLUS 2019,3 E10205 DOI 10.1002/JBM.10204 10205 46 THE E3 UBIQUITIN LIGASE SIN3A REGULATES THE ASSEMBLY AND DISASSEMBLY OF THE SYNAPTONEMAL COMPLEX IN DROSOPHILA FEMALES HUGHES SE, HEMENWAY E, GUO F, YI K, YU Z, HAWLEY RS PLOS GENET 2019,15 E1008161 DOI 10 1371/JOURNAL PGEN 1008161 47 ARTIFICIAL RNA POLYMERASE II ELONG</p>

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<p>34 AMYLOID-LIKE ASSEMBLY ACTIVATES A PHOSPHATASE IN THE DEVELOPING</p>	<p>ATION COMPLEXES FOR DISSECTING CO-TRANSCRIPTIONAL RNA PROCESSING EVENTS NOE GONZALEZ M, CONAWAY JW, CONAWAY RC J VIS EXP 2019,147 DOI 10 3791/59497 48 HYPO-OSMOTIC-LIKE STRESS UNDERLIES GENERAL CELLULAR DEFECTS OF ANEUPLOIDY TSAI HJ, NELLIAT AR, CHOUDHURY MI, KU CHARAVY A, BRADFORD WD, COOK ME, KIM J, MAIR DB, SUN SX, SCHATZ MC, LI R NATURE 2019,570 117-121 49 YEAST CENTROSOME COMPONENTS FORM A NONCANONICAL LINC COMPLEX AT THE NUCLEAR ENVELOPE INSERTION SITE CHEN J, GARDNER JM, YU Z, SMITH SE, MCKINNEY S, SLAUGHTER BD, UNRUH JR, JASPERSEN SL J CELL BIOL 2019,218 1478-1490 50 DOPAMINE RECEPTOR ANTAGONISTS AS POTENTIAL THERAPEUTIC AGENTS FOR ADPKD PAUL P, RAMACHANDRAN S, XIA S, UNRUH JR, CONKRIKH T-FINCHAM J, LI R PLOS ONE 2019,14 E0216220 DOI 10 1371/JOURNAL PONE 0216220 51 REPO RTER-CHIP-NEXUS REVEALS STRONG CONTRIBUTION OF THE DROSOPHILA INITIATOR SEQUENCE TO RNA POLYMERASE PAUSING SHAO W, ALCANTARA SG, ZEITLINGER J ELIFE 2019,8 E41461 DOI 10 1101/414107 52 TRANSLATION AFFECTS MRNA STABILITY IN A CODON-DEPENDENT MANNER IN HUMAN CELLS WU Q, MEDINA SG, KUSHAWAH G, DEVORE ML, CASTELLANO LA, HAND JM, WRIGHT M, BAZZINI AA ELIFE 2019,8 E45396 DOI 10 1101/453960 53 SET1-CATALYZED H3K4 TRIMETHYLATION ANTAGONIZES THE HIR/ASF1/RTT106 REPRESSOR COMPLEX TO PROMOTE HISTONE GENE EXPRESSION AND CHRONOLOGICAL LIFE SPAN MEI Q, XU C, GOGOL M, TANG J, CHEN W, YU X, WORKMAN JL, LI S NUCLEIC ACIDS RES 2019,47 3434-3449 54 EVALUATING CHROMATOGRAPHIC APPROACHES FOR THE QUANTITATIVE ANALYSIS OF A HUMAN PROTEOME ON ORBITRAP-BASED MASS SPECTROMETRY SYSTEMS ZHANG Y, WEN Z, WASHBURN MP, FLORENS L J PROTEOME RES 2019,18 1857-1869 55 DISTRIBUTION OF PROTEINS AT THE INNER NUCLEAR MEMBRANE IS REGULATED BY THE ASF1 E3 LIGASE IN SACCHAROMYCES CEREVISIAE SMOYER CJ, SMITH SE, GARDNER JM, MCCROSKEY S, UNRUH JR, JASPERSEN SL GENETICS 2019,211 1269-1282 56 DYRK1A REGULATES THE RECRUITMENT OF 53BP1 TO THE SITES OF DNA DAMAGE IN PART THROUGH INTERACTION WITH RNF169 MENON VR, ANANTHAPADMANABHAN V, SWANSON S, SAINI S, SESAY F, YAKOVLEV V, FLORENS L, DECAPRIO JA, WASHBURN MP, DOZMOROV M, LITOVCHIK K L CELL CYCLE 2019,18 531-551 57 A HOX-TALE REGULATORY CIRCUIT FOR NEURAL CREST PATTERNING IS CONSERVED ACROSS VERTEBRATES PARKER HJ, DE KUMAR B, GREEN SA, PRUMMEL KD, HESS C, KAUFMAN CK, MOSIMANN C, WIEDEMANN LM, BRONNER ME, KRUMLAUF R NAT COMMUN 2019,10 1189 DOI 10 1038/s41467-019-09197-4 58 TOPOLOGICAL SCORING OF PROTEIN INTERACTION NETWORKS SARDIU ME, GILMORE JM, GROPE BD, DUTTA A, FLORENS L, WASHBURN MP NAT COMMUN 2019,10 1118 DOI 10 1038/s41467-019-09123-y 59 IMAGING-BASED ASSAYS FOR INVESTIGATING FUNCTIONS OF THE RNA POLYMERASE II ELONGATION FACTOR ELONGIN AND THE ELONGIN UBIQUITIN LIGASE WEEMS JC, UNRUH JR, SLAUGHTER BD, CONAWAY RC, CONAWAY JW METHODS 2019,159-160 157-164 60 CHARACTERIZATION OF A METAZOAN ADACETYLTRANSFERASE COMPLEX SOFFERS JHM, LI X, SARAF A, SEIDEL CW, FLORENS L,</p>

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<p>34 AMYLOID-LIKE ASSEMBLY ACTIVATES A PHOSPHATASE IN THE DEVELOPING</p>	<p>WASHBURN MP, ABMAYR SM, WORKMAN JL NUCLEIC ACIDS RES 2019,47 3383-3394 61 A CHEMOPROT EOMIC PORTRAIT OF THE ONCOMETABOLITE FUMARATE KULKARNI RA, BAK DW, WEI D, BERGHOLTZ SE, B RINEY CA, SHRIMP JH, ALPSOY A, THORPE AL, BAVARI AE, CROOKS DR, LEVY M, FLORENS L, WASHBUR N MP, FRIZZELL N, DYKHUIZEN EC, WEERAPANA E, LINEHAN WM, MEIER JL NAT CHEM BIOL 2019,15 391-400 62 HOST VESICLE FUSION PROTEIN VAPB IS REQUIRED FOR THE NUCLEAR EGRESS STAGE OF HERPES SIMPLEX VIRUS TYPE-1 (HSV-1) REPLICATION SAIZ-ROS N, CZAPIEWSKI R, EPIFANO I, STEVE NSON A, SWANSON SK, DIXON CR, ZAMORA DB, MCELWEE M, VIJAYAKRISHNAN S, RICHARDSON CA, DONG L, KELLY DA, PYTOWSKI L, GOLDBERG MW, FLORENS L, GRAHAM SV, SCHIRMER EC CELLS 2019,8 E12 0 DOI 110 3390/CELLS8020120 63 TOWARDS THE MOLECULAR DECIPHERING OF POMACEA CANALICULA TA IMMUNITY FIRST PROTEOMIC ANALYSIS OF CIRCULATING HEMOCYTES BORALDI F, LOFARO FD, ACCO RSI A, ROSS E, MALAGOLI D PROTEOMICS 2019,19 E1800314 DOI 1800310 1801002/PMIC 2018003 14 64 DEFINING GENE NETWORKS CONTROLLING THE MAINTENANCE AND FUNCTION OF THE DIFFERENTIATION NICHE BY AN IN VIVO SYSTEMATIC RNAI SCREEN GAO Y, MAO Y, XU RG, ZHU R, ZHANG M, SUN J, SHEN D, PENG P, XIE T, NI JQ J GENET GENOME 2019,46 19-30 65 SCRNA-SEQ REVEALS DISTINCT STEM CELL POPULATIONS THAT DRIVE HAIR CELL REGENERATION AFTER LOSS OF FGF AND NOTCH SIGNALING LUSH ME, DIAZ DC, KOENECKE N, BAEK S, BOLDT H, ST PETER MK, GAITAN-ESCUDEO T, ROMERO-CARVAJAL A, BUSCH-NENTWICH EM, PERERA AG, HALL KE, PEAK A, HAUG JS, PIOTROWSKI T ELIFE 2019,8 E44431 DOI 44410 47554/ELIFE 44431 66 N-CADHERIN-EXPRESSING BONE AND MARRO W STROMAL PROGENITOR CELLS MAINTAIN RESERVE HEMATOPOIETIC STEM CELLS ZHAO M, TAO F, VENKA TRAMANA A, LI Z, SMITH SE, UNRUH J, CHEN S, WARD C, QIAN P, PERRY JM, MARSHALL H, WANG J, HE XC, LI L CELL REP 2019,26 652-669 E656 67 THE DROSOPHILA DBF4 ORTHOLOG CHIFFON FORMS A COMPLEX WITH GCN5 THAT IS NECESSARY FOR HISTONE ACETYLATION AND VIABILITY TORRES-ZELAD A EF, STEPHENSON RE, ALPSOY A, ANDERSON BD, SWANSON SK, FLORENS L, DYKHUIZEN EC, WASHBURN MP, WEAKE VM J CELL SCI 2019,132 JCS 214072 68 ELECTROPORATION OF SHORT HAIRPIN RNAs FOR RAPID AND EFFICIENT GENE KNOCKDOWN IN THE STARLET SEA ANEMONE, NEMATOSTELLA VECTENSIS KARABULUT A, HE S, CHEN CY, MCKINNEY SA, GIBSON MC DEV BIOL 2019,448 7-15 69 OOCYTE-SPECIFIC DELETION OF HDAC8 IN MICE REVEALS STAGE-SPECIFIC EFFECTS ON FERTILITY SINGH VP, YU EH WT, GERTON JL, DUNCAN FE REPRODUCTION 2019,157 305-316 70 NARYA, A RING FINGER DOMA IN-CONTAINING PROTEIN, IS REQUIRED FOR BOTH MEIOTIC DNA DOUBLE-STRAND BREAK FORMATION AND CROSSOVER MATURATION IN DROSOPHILA MELANOGASTER LAKE CM, NIELSEN RJ, BONNER AM, ECHE S, WHITE-BROWN S, MCKIM KS, HAWLEY RS PLOS GENET 2019,15 E1007886 DOI 1007810 1001371/JOURNAL PGEN 1007886</p>

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71 SHH PLAYS AN INHIBITORY ROLE IN CUSP PATTERNING BY REGULATION OF	<p>SOSTDC1 KIM J, AHN Y, ADASOORIYA D, WOO EJ, KIM HJ, HU KS, KRUMLAUF R, CHO SW J DENT RES 2019,98 98-106 72 FUNCTIONAL CONSEQUENCES OF THE EVOLUTION OF MATRIMONY, A MEIOSIS-SPECIFIC INHIBITOR OF POLO KINASE BONNER AM, HAWLEY RS MOL BIOL EVOL 2019,36 69-83 73 GLYCOLYSIS REGULATES GENE EXPRESSION BY PROMOTING THE CROSSTALK BETWEEN H3K4 TRIMETHYLATION AND H3K14 ACETYLATION IN SACCHAROMYCES CERVISIAE WU Y, ZHANG S, GONG X, YU Q, ZHANG Y, LU O M, ZHANG X, WORMAN JL, YU X, LI S J GENET GENOMICS 2019,46 561-574 74 UNIDIRECTIONAL PROPULSION OF PLANAR MAGNETIC NANOMACHINES COHEN K-J, RUBINSTEIN BY, KENNETH O, LESHANSKY AM PHYS REV APPLIED 2019,12 014025 1-10 REVIEWS, COMMENTARIES, CHAPTERS, AND BOOKS 1 CONTINUING THE ADVANCEMENT OF JOURNAL OF HISTOTECHNOLOGY - ONE ISSUE AT A TIME WANG Y J HISTOTECHNOL 2019,42 165-166 2 EXOGENOUS PYRUVATE REPRESSED HISTONE GENE EXPRESSION AND INHIBITS CANCER CELL PROLIFERATION VIA THE NAMPT-NAD+-SIRT1 PATHWAY MA R, WU Y, ZHAI Y, HU B, MA W, YANG W, YU Q, CHEN Z, WORKMAN JL, YU X, LI S NUCLEIC ACIDS RES 2019,47 1113 2-11150 3 THE JOY OF BALANCERS MILLER DE, COOK KR, HAWLEY RS PLOS GENET 2019,15 E1008 421 DOI 1008410 1001371/JOURNAL PGEN 1008421 4 REBOOTING THE EPIGENOME ERASURE OF PARENTAL HISTONE MARKS FOR ESTABLISHING THE REGULATORY LANDSCAPE IN ZYGOTES BHATTACHARYA S, WORKMAN JL [PUBLISHED AHEAD OF PRINT OCTOBER 23 2019] BIOCHEMISTRY 2019 5 BEYOND BASAL C AT THE STOWERS INSTITUTE FOR MEDICAL RESEARCH BLAND K, ORR AA MO MED 2019,116 457-460 6 AN INTERDISCIPLINARY APPROACH TO INVESTIGATE COLLECTIVE CELL MIGRATION IN NEURAL CREST T GINIUNAITE R, MCLENNAN R, MCKINNEY MC, BAKER RE, KULESA PM, MAINI PK [PUBLISHED AHEAD OF PRINT OCTOBER 18 2019] DEV DYN 2019 7 PURIFICATION AND ENZYMIC ASSAY OF CLASS I HISTONE DEACETYLASE ENZYMES ADAMS MK, BANKS CAS, MIAH S, KILLER M, WASHBURN MP METHODS ENZYMOL 2019,626 23-40 8 COMPARING SENSORY ORGANS TO DEFINE THE PATH FOR HAIR CELL REGENERATION DENANS N, BAEK S, PIOTROWSKI T ANNU REV CELL DEV BIOL 2019,35 568-589 9 NSL COMPLEX ACETYLATED LAMIN A/C POPOVA VV, WORKMAN JL NAT CELL BIOL 2019,21 1177-1178 10 PATROLLING THE NUCLEUS INNER NUCLEAR MEMBRANE-ASSOCIATED DEGRADATION SMOYER CJ, JASPERSEN SL CURR GENET 2019,65 1099-1106 11 THE HUNT FOR RNA POLYMERASE II ELONGATION FACTORS A HISTORICAL PERSPECTIVE CONAWAY RC, CONAWAY JW NAT STRUCT MOL BIOL 2019,26 771-776 12 REGULATION OF GENOMIC OUTPUT AND (PLURI)POTENCY IN REGENERATION DUNCAN EM, SNCHEZ ALVA RADO A ANNU REV GENET 2019,53 16 1-16 20 13 CNIDOFEST 2018 THE FUTURE IS BRIGHT FOR Cnidarian RESEARCH HE S, GRASIS JA, NICOTRA ML, JULIANO CE, SCHNITZLER CE EVODEVO 2019,1 0 20 DOI 10 1186/S13227-13019-10134-13225 14 HISTONE LYSINE DE-BETA-HYDROXYBUTYRYLATION BY SIRT3 ABMAYR SM, WORKMAN JL CELL RES 2019,29 694-695 15 GENE CONVERSION GENERATES EVOLUTIONARY NOVELTY THAT FUELS GENETIC CONFLICTS DAUGHERTY MD, ZANDERS SE V CURR OPIN GENET DE 2019,58 49-54 16 A</p>

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71 SHH PLAYS AN INHIBITORY ROLE IN CUSP PATTERNING BY REGULATION OF	<p>FAMILY OF KILLERS DE CARVALHO M, ZANDERS SE ELIFE 2019,8 E46454 DOI 46410 47554/ELIF E 46454 17 WHEN MOTHERS LEAVE THEIR MARK BARAJAS-AZPELETA R, SI K ELIFE 2019,8 E48899 DOI 48810 47554/ELIFE 48899 18 HEMATOPOIETIC STEM CELLS SELF-RENEWAL AND EXPANSION L I Z, HE XC, LI L CURR OPIN HEMATOL 2019,26 258-265 19 FERTILITY COSTS OF MEIOTIC DRIVE RS ZANDERS SE, UNCKLESS RL CURR BIOL 2019,29 R512-R520 20 CORNELIA DE LANGE SYNDROME, RELATED DISORDERS, AND THE COHESIN COMPLEX ABSTRACTS FROM THE 8TH BIENNIAL SCIENTIFIC AND EDUCATIONAL SYMPOSIUM 2018 KLINE AD, KRANTZ ID, BANDO M, SHIRAHIGE K, CHEA S, SAKATA T, RAO S, DORSETT D, SINGH VP, GERTON JL, HORSFIELD JA, CALOF AL, KATZ O, GRADOS M, RAIBLE S, BARANANO K, LYON G, MUSIO A, CARRICO CS, CLEMENS DK, CAUDILL P, MASSA V, MCGILL BE, DOMM ESTRUP A, O'CONNOR J, HAALAND RE AM J MED GENET A 2019,179 1030-1090 21 HOX GENES DOW NSTREAM "EFFECTORS" OF RETINOIC ACID SIGNALING IN VERTEBRATE EMBRYOGENESIS NOLTE C, DE KU MAR B, KRUMLAUF R GENESIS 2019 E23306 DOI 10 1002/DVG 23306 22 NICHE CELLS REWIRED TO MAINTAIN HSCS EX VIVO VENKATRAMAN A, LI L NAT CELL BIOL 2019,21 540-541 23 COMMENTAR Y ON "REGENERATION, DUPLICATION AND TRANSDETERMINATION IN FRAGMENTS OF THE LEG DISC OF DRO SOPHILA MELANOGASTER" SCHUBIGER, G (1971) DEV BIOL 2019,449 63-82 GIBSON MC DEV BIO L 2019,449 63-82 24 IN OVO ELECTROPORATION OF PLASMID DNA AND MORPHOLINOS INTO SPECIFIC TISSUES DURING EARLY EMBRYOGENESIS MCLENNAN R, KULESA PM METHODS MOL BIOL 2019,1976 71- 82 25 MOUSE EMBRYO CULTURE FOR THE STUDY OF NEURAL CREST CELLS MUNOZ WA, TRAINOR PA ME THODS MOL BIOL MEIOSIS 2019,1976 107-119 26 OBSERVATION OF TWO SEPARATE BIPOLAR SPINDL ES IN THE HUMAN ZYGOTE XU, X, LI L, ZHANG C, MENG L J ASSIST REPROD GENET 2019,36 601- 602 CORRECTION J ASSIST REPROD GENET 2019 JUL 31 PII 10 1007/S10815-019-01539-1 DOI 10 1007/S10815-019-01539-1 27 SWEET FISH FISH MODELS FOR THE STUDY OF HYPERGLYCEMIA AND DIABETES KRISHNAN J, ROHNER N J DIABETES 2019,11 193-203 28 RIBOSOMAL DNA INSTABILITY AND GENOME ADAPTABILITY SALIM D, GERTON JL CHROMOSOME RES 2019,27 73-87 29 RIBOSOM AL DNA AND THE NUCLEOLUS IN THE CONTEXT OF GENOME ORGANIZATION POTAPOVA TA, GERTON JL CH ROMOSOME RES 2019,27 109-127 30 THE SOCIETY FOR CRANIOFACIAL GENETICS AND DEVELOPMENTAL BIOLOGY 41ST ANNUAL MEETING TANEYHILL LA, MOODY SA, COX T, KLEIN OD, MARCUCIO R, SCHNEID ER RA, TRAINOR PA AM J MED GENET A 2019,179 864-869 31 MANIPULATION OF DEVELOPMENTAL F UNCTION IN TURTLES WITH NOTES ON ALLIGATORS MOUSTAKAS-VERHO JE, MCLENNAN R, SPENGLER J, K ULESA PM, CEBRA-THOMAS JA METHODS MOL BIOL 2019,1920 247-263 AUTHOR'S CORRECTION METHO DS MOL BIOL 2019,1920 C1 32 AN INTEGRATIVE VIEW OF LEPIDOSAUR CRANIAL ANATOMY, DEVELOPM ENT AND DIVERSIFICATION DIAZ JR RE, TRAINOR PA IN ZIERMANN, D JR, AND DIOGO, EDS HEA DS, JAWS AND MUSCLES ANATOMICAL, FUNCTIONAL AND DEVELOPMENTAL DIVERSITY IN CHORDATE EVOLUT ION, SPRINGER, 2019 207-227 3</p>

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<p>71 SHH PLAYS AN INHIBITORY ROLE IN CUSP PATTERNING BY REGULATION OF</p>	<p>3 RIBOSOMAL DNA-CONNECTING RIBOSOME BIOGENESIS AND CHROMOSOME BIOLOGY POROKHOVNIK L, GER TON JL CHROMOSOME RES 2019,27 1-3 34 RECENT ADVANCES IN UNDERSTANDING INTESTINAL STEM CELL REGULATION HU D, YAN H, HE XC, LI L F1000RES 2019,8 F1000 FACULTY REV-72 PUBLISHED 2019 JAN 18 DOI 10.12688/F1000RESEARCH.16793.1 COMPETITIVE RESEARCH GRANT FUNDING &amp; RESEARCH AWARDS &amp; DISTINCTIONS THE ABILITY OF SIMR SCIENTISTS TO RECEIVE COMPETITIVELY AWARDED RESEARCH FUNDING ATTESTS TO THE HIGH LEVEL OF RESEARCH PRODUCTIVITY PRESENT AT SIMR DURING 2019, SIMR SCIENTISTS WORKED WITH THE SUPPORT OF 31 GRANTS AND FELLOWSHIPS FROM THE NATIONAL INSTITUTES OF HEALTH, TWO GRANTS FROM THE NATIONAL SCIENCE FOUNDATION, TWO GRANTS FROM THE MARCH OF DIMES, ONE GRANT FROM THE GREATER KANSAS CITY COMMUNITY FOUNDATION, ONE GRANT FROM THE HEARING HEALTH FOUNDATION, ONE FELLOWSHIP FROM THE JANE COFFIN CHILDS MEMORIAL FUND, ONE AWARD FROM THE SEARLE SCHOLARS PROGRAM, ONE AWARD FROM THE PEW CHARITABLE TRUSTS, ONE AWARD FROM THE UNIVERSITY OF KANSAS ENDOWMENT ASSOCIATION, ONE GRANT FROM THE EDWARD MALLINCKRODT JR FOUNDATION, ONE GRANT FROM THE JUVENILE DIABETES RESEARCH FOUNDATION, ONE GRANT FROM THE UNIVERSITY OF KANSAS ALZHEIMER'S DISEASE CENTER, ONE GRANT FROM THE UNIVERSITY OF KANSAS CANCER CENTER, AND ONE INVESTIGATOR AWARD FROM THE HOWARD HUGHES MEDICAL INSTITUTE SUPPORT FROM NEW AND CONTINUING AWARDS TO SIMR TOTALLED MORE THAN \$6.2 MILLION IN 2019 TO SUPPLEMENT INCOME FROM ITS ENDOWMENTS TESTIFYING TO THE HIGH LEVEL OF ACHIEVEMENT TAKING PLACE AT SIMR ARE THE AWARDS AND HONORS SIMR MEMBERS RECEIVED IN 2019 1 NICO LAS ROHNER, PHD, RECEIVED A TWO-YEAR GRANT FROM THE JUVENILE DIABETES RESEARCH FOUNDATION 2 TING XIE, PHD, WAS AWARDED A FIVE-YEAR GRANT FROM THE NIH EUNICE SHRIVER NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT 3 LINHENG LI, PHD, RECEIVED A FIVE-YEAR GRANT FROM THE NIH NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES 4 ARIEL BAZ ZINI, PHD, RECEIVED A TWO-YEAR PEW INNOVATION FUND AWARD ALONG WITH COLLABORATOR DIEGO ALVAREZ, PHD, FROM THE NATIONAL UNIVERSITY OF SAN MARTIN, ARGENTINA 5 RANDAL HALFMANN, PHD, RECEIVED A FOUR-YEAR NIH GRANT FROM THE NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES 6 ERIC HILL, PHD, A POSTDOCTORAL RESEARCHER IN THE GIBSON LAB, WAS AWARDED A TWO-YEAR NIH FELLOWSHIP FROM THE NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES 7 CASSANDRA KEMPF, A POSTDOCTORAL RESEARCHER OF THE GRADUATE SCHOOL OF THE STOWERS INSTITUTE, RECEIVED A THREE-YEAR FELLOWSHIP FROM THE NIH NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES 8 STACEY HANLON, PHD, A POSTDOCTORAL RESEARCHER IN THE HAWLEY LAB, WAS AWARDED A TWO-YEAR GRANT FROM THE NIH EUNICE KENNEDY SHRIVER NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT 9 JOSEPH VARBERG, PHD, A POSTDOCTORAL RESEARCHER IN THE JASPERSEN LAB, RECEIVED A ONE-YEAR NIH NRS A POSTDOCTORAL FELLOWSHIP</p>

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<p>10 JIANZHENG WU, A UNIVERSITY OF KANSAS MEDICAL CENTER PREDOCTORAL</p>	<p>RESEARCHER IN THE HALFMANN LAB, WAS AWARDED A ONE-YEAR FELLOWSHIP FROM THE UNIVERSITY OF KANSAS MEDICAL CENTER INSTITUTE FOR NEUROLOGICAL DISCOVERIES INDEPENDENT RESEARCH PROGRAM LEADERS LABORATORIES INDIVIDUAL SCIENTISTS AT THE SIMR SPECIALIZE IN THE STUDY OF ONE OR MORE PARTICULAR GENES, PROTEINS, OR OTHER MOLECULES, EACH OF WHICH MAY CAUSE OR INFLUENCE VARIOUS KINDS OF DISEASE A COMPREHENSIVE LIST OF RESEARCH LEADERS FOLLOWS 1 ALEJANDRO SNC HEZ ALVARADO, PHD, SCIENTIFIC DIRECTOR, INVESTIGATOR, AND HOWARD HUGHES MEDICAL INSTITUTE INVESTIGATOR, JOINED SIMR IN 2011 FROM THE UNIVERSITY OF UTAH'S SCHOOL OF MEDICINE, WHERE HE HELD THE H A &amp; EDNA BENNING PROFESSORSHIP OF NEUROBIOLOGY AND ANATOMY HE RECEIVED A B S IN MOLECULAR BIOLOGY AND CHEMISTRY FROM VANDERBILT UNIVERSITY IN NASHVILLE, TENN , AND A PHD IN PHARMACOLOGY AND CELL BIOPHYSICS FROM THE UNIVERSITY OF CINCINNATI COLLEGE OF MEDICINE IN CINCINNATI, OHIO RESEARCH FOCUS THE MOLECULAR AND CELLULAR MECHANISMS UNDERPINNING ANIMAL REGENERATION USING THE PLANARIAN SCHMIDTEA MEDITERRANEA AS A MODEL SYSTEM 2 AR IEL BAZZINI, PHD, ASSISTANT INVESTIGATOR, JOINED SIMR IN 2016 FROM THE LAB OF ANTONIO J G IRALDEZ, PHD, IN THE DEPARTMENT OF GENETICS AT YALE UNIVERSITY, WHERE HE COMPLETED A POSTDOCTORAL FELLOWSHIP DR BAZZINI RECEIVED HIS PHD IN MOLECULAR BIOLOGY AT THE UNIVERSITY OF BUENOS AIRES, ARGENTINA FOR HIS DOCTORAL DISSERTATION, HE STUDIED PLANT GENETICS AT THE INSTITUTE OF BIOTECHNOLOGY IN ARGENTINA'S NATIONAL INSTITUTE OF AGRICULTURAL TECHNOLOGY (INTA) RESEARCH FOCUS THE REGULATION OF GENE EXPRESSION IN VERTEBRATES 3 JOAN CONAWAY, PHD, INVESTIGATOR, JOINED SIMR IN 2001 FROM THE OKLAHOMA MEDICAL RESEARCH FOUNDATION WHERE SHE WAS AN ASSOCIATE INVESTIGATOR OF THE HOWARD HUGHES MEDICAL INSTITUTE AND INTERIM HEAD OF THE PROGRAM IN MOLECULAR AND CELL BIOLOGY DR CONAWAY RECEIVED HER DOCTORATE IN CELL BIOLOGY FROM STANFORD UNIVERSITY SCHOOL OF MEDICINE RESEARCH FOCUS ANALYSIS OF THE MOLECULAR MECHANISM AND REGULATION OF GENE TRANSCRIPTION 4 RONALD CONAWAY, PHD, INVESTIGATOR, JOINED SIMR IN 2001 FROM THE OKLAHOMA MEDICAL RESEARCH FOUNDATION WHERE HE WAS HOLDER OF THE CHAPMAN CHAIR IN MEDICAL RESEARCH DR CONAWAY RECEIVED HIS PHD IN BIOCHEMISTRY FROM STANFORD UNIVERSITY SCHOOL OF MEDICINE RESEARCH FOCUS ANALYSIS OF THE MOLECULAR MECHANISM AND REGULATION OF GENE TRANSCRIPTION 5 JENNIFER GERTON, PHD, INVESTIGATOR, JOINED SIMR IN 2002 FROM A POSTDOCTORAL FELLOWSHIP IN THE LABORATORY OF DR JOSEPH DERISI IN THE DEPARTMENT OF BIOCHEMISTRY AND BIOPHYSICS AT THE UNIVERSITY OF CALIFORNIA-SAN FRANCISCO DR GERTON RECEIVED A PHD IN MICROBIOLOGY AND IMMUNOLOGY FROM STANFORD UNIVERSITY RESEARCH FOCUS GENOMIC AND GENETIC ANALYSIS OF CHROMOSOME SEGREGATION AND CHROMOSOME DYNAMICS 6 MATTH EW GIBSON, PHD, INVESTIGATOR AND DEAN OF THE GRADUATE SCHOOL, JOINED SIMR IN 2006 FROM A JANE COFFIN CHILDS MEMORIAL FUND POSTDOCTORAL FELLOWSHIP WITH DR NORBERT PERRIMON AT HARVARD MEDICAL SCHOOL DR GIBSON</p>



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Return Reference	Explanation
<p>10 JIANZHENG WU, A UNIVERSITY OF KANSAS MEDICAL CENTER PREDOCTORAL</p>	<p>RECEIVED A PHD IN ZOOLOGY FROM THE UNIVERSITY OF WASHINGTON RESEARCH FOCUS GENETIC ANALYSIS OF MECHANISMS CONTROLLING SIGNAL TRANSDUCTION, CELL PROLIFERATION, AND EPITHELIAL MORPHOGENESIS DURING DROSOPHILA DEVELOPMENT 7 RANDAL HALFMANN, PHD, ASSISTANT INVESTIGATOR, JOINED SIMR IN 2015 FROM THE UNIVERSITY OF TEXAS (UT) SOUTHWESTERN MEDICAL CENTER HE RECEIVED A PHD IN BIOLOGY FROM THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY, WHERE HE WAS A NATIONAL SCIENCE FOUNDATION PREDOCTORAL FELLOW AFTER COMPLETING HIS GRADUATE STUDIES, DR HALFMANN OBTAINED AN INDEPENDENT POSITION AT UT SOUTHWESTERN MEDICAL CENTER WHERE HE WAS A SAR A AND FRANK MCKNIGHT FELLOW AND RECEIVED A DIRECTOR'S EARLY INDEPENDENCE AWARD FROM THE NATIONAL INSTITUTES OF HEALTH RESEARCH FOCUS CELLULAR AND EVOLUTIONARY IMPLICATIONS OF PROTEIN SELF-ASSEMBLY USING GENETIC, BIOCHEMICAL, AND CELL-BIOLOGICAL APPROACHES 8 R SCOTT HAWLEY, PHD, INVESTIGATOR AND DEAN EMERITUS OF THE GRADUATE SCHOOL, JOINED SIMR IN 2001 FROM THE UNIVERSITY OF CALIFORNIA-DAVIS WHERE HE WAS A PROFESSOR OF GENETICS IN THE MOLECULAR AND CELLULAR BIOLOGY SECTION DR HAWLEY EARNED A PHD IN GENETICS FROM THE UNIVERSITY OF WASHINGTON AND COMPLETED POSTDOCTORAL TRAINING AS A HELEN HAY WHITNEY FELLOW AT THE INSTITUTE FOR CANCER RESEARCH IN PHILADELPHIA RESEARCH FOCUS INVESTIGATION OF MECHANISMS THAT INFLUENCE HOW CHROMOSOMES PAIR AND SEGREGATE DURING MEIOSIS USING DROSOPHILA AS AN EXPERIMENTAL SYSTEM 9 SUE JASPERSEN, PHD, ASSOCIATE INVESTIGATOR, JOINED SIMR IN 2005 FROM THE LABORATORY OF DR MARK WINEY AT THE UNIVERSITY OF COLORADO-BOULDER WHERE SHE WAS A KECK FOUNDATION FELLOW, A HELEN HAY WHITNEY FELLOW, AND THE RECIPIENT OF A LEUKEMIA &amp; LYMPHOMA SOCIETY CAREER DEVELOPMENT AWARD DR JASPERSEN HOLDS A PHD IN BIOCHEMISTRY FROM THE UNIVERSITY OF CALIFORNIA-SAN FRANCISCO RESEARCH FOCUS INNER NUCLEAR MEMBRANE PROTEIN LOCALIZATION AND ROLE IN CHROMOSOME POSITIONING AND SEGREGATION 10 ROBERT KRUMLAUF, PHD, SCIENTIFIC DIRECTOR EMERITUS AND INVESTIGATOR, JOINED THE SIMR IN 2000 FROM ENGLAND'S NATIONAL INSTITUTE FOR MEDICAL RESEARCH, THE RIDGEWAY, MILL HILL, LONDON, WHERE HE WAS HEAD OF THE DIVISION OF DEVELOPMENTAL NEUROBIOLOGY DR KRUMLAUF RECEIVED A PHD IN DEVELOPMENTAL BIOLOGY FROM OHIO STATE UNIVERSITY RESEARCH FOCUS ANALYSIS OF MOLECULAR PATHWAYS THAT REGULATE HOW THE MAMMALIAN HEAD, BRAIN AND NERVOUS SYSTEM ARE BUILT, USING A VARIETY OF VERTEBRATE MODEL SYSTEMS 11 LINHENG LI, PHD, INVESTIGATOR, JOINED SIMR IN 2000 FROM THE UNIVERSITY OF WASHINGTON MEDICAL CENTER WHERE HE HELD A FACULTY APPOINTMENT AFTER COMPLETING POSTDOCTORAL TRAINING IN THE LABORATORY DIRECTED BY DR LEROY HOOD DR LI EARNED HIS PHD IN MOLECULAR AND CELLULAR BIOLOGY FROM NEW YORK UNIVERSITY MEDICAL SCHOOL UNDER THE MENTORING OF DR EDWARD ZIFF RESEARCH FOCUS INVESTIGATION OF MOLECULAR AND GENETIC PATHWAYS CONTROLLING ADULT STEM CELL DEVELOPMENT IN THE HEMATOPOIETIC AND INTESTINAL SYSTEMS USING TRANSGENIC AND GENE TARGETING ANIMAL MOD</p>

**990 Schedule O, Supplemental Information**

Return Reference	Explanation
10 JIANZHENG WU, A UNIVERSITY OF KANSAS MEDICAL CENTER PREDOCTORAL	<p>EL APPROACHES 12 TATJANA PIOTROWSKI, PHD, INVESTIGATOR, JOINED SIMR IN 2011 FROM THE UNIVERSITY OF UTAH'S SCHOOL OF MEDICINE, WHERE SHE WAS AN ASSOCIATE PROFESSOR IN THE DEPARTMENT OF NEUROBIOLOGY AND ANATOMY SHE RECEIVED HER MASTER'S DEGREE FROM THE UNIVERSITY OF TUBINGEN, GERMANY, AND HER DOCTORATE DEGREE FROM THE MAX PLANCK INSTITUTE FOR DEVELOPMENTAL BIOLOGY IN TUBINGEN RESEARCH FOCUS COLLECTIVE CELL MIGRATION, CELL TYPE SPECIFICATION AND STEM CELL BIOLOGY IN ZEBRAFISH AS A MODEL SYSTEM 13 NICOLAS ROHNER, PHD, ASSISTANT INVESTIGATOR, JOINED SIMR IN 2015 FROM HARVARD MEDICAL SCHOOL, WHERE HE WAS A POSTDOCTORAL FELLOW IN DR CLIFF TABIN'S LABORATORY HE EARNED A PHD IN BIOLOGY FROM THE MAX PLANCK INSTITUTE FOR DEVELOPMENTAL BIOLOGY IN TUBINGEN, GERMANY RESEARCH FOCUS GENETIC MECHANISMS AND MUTATIONS THAT UNDERLIE THE ANIMAL KINGDOM'S TREMENDOUS DIVERSITY IN MORPHOLOGY, PHYSIOLOGY, AND BEHAVIOR 14 KAUSIK SI, PHD, ASSOCIATE SCIENTIFIC DIRECTOR AND INVESTIGATOR, JOINED SIMR IN 2005 FROM THE LABORATORY OF DR ERIC KANDEL AT COLUMBIA UNIVERSITY CENTER FOR NEUROBIOLOGY AND BEHAVIOR WHERE HE WAS A JANE COFFIN CHILDS FELLOW AND A FRANCIS GOELET FELLOW IN NEUROSCIENCE DR SI EARNED A PHD IN MOLECULAR BIOLOGY FROM THE ALBERT EINSTEIN COLLEGE OF MEDICINE RESEARCH FOCUS ROLE OF SYNAPTIC PROTEIN SYNTHESIS IN INFORMATION ACQUISITION AND MEMORY STORAGE 15 PAUL TRAINOR, PHD, INVESTIGATOR, JOINED SIMR IN 2001 FROM A RESEARCH POSITION AT THE NATIONAL INSTITUTE FOR MEDICAL RESEARCH AT MILL HILL, LONDON, WHERE HE COMPLETED POSTDOCTORAL TRAINING DR TRAINOR HAS A PHD IN DEVELOPMENTAL BIOLOGY FROM CHILDREN'S MEDICAL RESEARCH INSTITUTE AT THE UNIVERSITY OF SYDNEY, AUSTRALIA RESEARCH FOCUS INVESTIGATION OF THE INTERACTIONS BETWEEN DISTINCT TISSUES IN THE BODY AND THEIR REGULATION DURING NORMAL DEVELOPMENT TO REVEAL PATHWAYS THAT REGULATE NORMAL CRANIAL AND FACIAL DEVELOPMENT 16 JERRY WORKMAN, PHD, INVESTIGATOR, JOINED SIMR IN 2003 FROM THE PENNSYLVANIA STATE UNIVERSITY WHERE HE HELD THE PAUL BERG PROFESSORSHIP OF BIOCHEMISTRY AND WAS AN ASSOCIATE INVESTIGATOR OF THE HOWARD HUGHES MEDICAL INSTITUTE DR WORKMAN EARNED A PHD IN CELL AND MOLECULAR BIOLOGY FROM THE UNIVERSITY OF MICHIGAN AND COMPLETED POSTDOCTORAL TRAINING AT THE ROCKEFELLER UNIVERSITY WITH DR BOB ROEDER RESEARCH FOCUS STUDY OF THE PROTEIN COMPLEXES THAT MODIFY CHROMATIN 17 TING XIE, PHD, INVESTIGATOR, JOINED SIMR IN 2000 AFTER COMPLETING A HOWARD HUGHES MEDICAL INSTITUTE POSTDOCTORAL FELLOWSHIP IN THE LABORATORY OF DR ALLAN C SPRADLING AT THE CARNEGIE INSTITUTION OF WASHINGTON DR XIE RECEIVED HIS PHD FROM THE JOINT GRADUATE PROGRAM IN MOLECULAR BIOLOGY AND BIOCHEMISTRY OF RUTGERS UNIVERSITY AND THE UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY RESEARCH FOCUS GENETIC AND MOLECULAR ANALYSIS OF STEM CELLS AND GERM CELL DEVELOPMENT IN DROSOPHILA AND MOUSE</p>

**990 Schedule O, Supplemental Information**

Return Reference	Explanation
<p>18 C RON YU, PHD, INVESTIGATOR, JOINED SIMR IN 2005 FROM THE LABORATORY</p>	<p>OF DR RICHARD AXEL AT COLUMBIA UNIVERSITY CENTER FOR NEUROBIOLOGY AND BEHAVIOR WHERE HE HELD A NATIONAL INSTITUTES OF HEALTH MENTORED RESEARCH SCIENTIST AWARD FROM THE NATIONAL INSTITUTE OF MENTAL HEALTH DR YU EARNED HIS PHD IN MOLECULAR, CELLULAR, AND BIOPHYSICAL STUDIES AT COLUMBIA UNIVERSITY RESEARCH FOCUS HOW OLFACTORY SENSORY INFORMATION IS DETECTED, INTEGRATED, AND PROCESSED IN THE BRAIN TO INFLUENCE SPECIFIC INNATE BEHAVIORS 19 SARAH ZANDERS, PHD, ASSISTANT INVESTIGATOR AND VICE DEAN OF THE GRADUATE SCHOOL, JOINED SIMR IN 2016 AFTER COMPLETION OF HER POSTDOCTORAL TRAINING IN BASIC SCIENCES AT THE FRED HUTCHINSON CANCER RESEARCH CENTER (FHCRC) WITH SUPPORT FROM A PATHWAY TO INDEPENDENCE AWARD FROM THE NATIONAL INSTITUTES OF HEALTH FHCRC FACULTY MEMBERS HARMIT S MALIK, PHD, AND GERRY SMITH, PHD, ADVISED HER RESEARCH ON FERTILITY, GENOME EVOLUTION, AND THE ORIGIN OF NEW SPECIES DR ZANDERS RECEIVED HER PHD IN GENETICS AND DEVELOPMENT FROM CORNELL UNIVERSITY RESEARCH FOCUS THE EFFECTS OF GENETIC CONFLICTS CAUSED BY SELFISH GENES THAT ARE EMBEDDED IN EUKARYOTIC GENOMES 20 JULIA ZEITLINGER, PHD, INVESTIGATOR, JOINED SIMR IN 2007 FROM THE LAB OF DR RICHARD YOUNG AT THE WHITEHEAD INSTITUTE FOR BIOMEDICAL RESEARCH AT MASSACHUSETTS INSTITUTE OF TECHNOLOGY WHERE SHE WAS THE RECIPIENT OF A LONG-TERM POSTDOCTORAL FELLOWSHIP FROM THE HUMAN FRONTIER SCIENCE PROGRAM DR ZEITLINGER EARNED A PHD IN MOLECULAR BIOLOGY FROM THE EUROPEAN MOLECULAR BIOLOGY LABORATORY IN HEIDELBERG, GERMANY RESEARCH FOCUS ANALYSIS OF THE GENE REGULATORY NETWORKS UNDERLYING CELLULAR DIFFERENTIATION TECHNOLOGY CENTERS 1 PAUL KULESA, PHD, DIRECTOR OF IMAGING, JOINED SIMR IN 2002 AFTER COMPLETING A BURROUGHS WELLCOME FUND POSTDOCTORAL FELLOWSHIP IN THE LABORATORY OF DR SCOTT E FRASER AT THE CALIFORNIA INSTITUTE OF TECHNOLOGY DR KULESA RECEIVED A PHD IN APPLIED MATHEMATICS UNDER DR J D MURRAY AT THE UNIVERSITY OF WASHINGTON RESEARCH FOCUS CELL MIGRATION IN DEVELOPMENT AND CANCER 2 MICHAEL WASHBURN, PHD, DIRECTOR OF PROTEOMICS, JOINED SIMR IN 2003 FROM THE TORREY MESA RESEARCH INSTITUTE IN SAN DIEGO WHERE HE WAS A SENIOR STAFF SCIENTIST IN PROTEOMICS HE EARNED A PHD IN BIOCHEMISTRY AND ENVIRONMENTAL TOXICOLOGY FROM MICHIGAN STATE UNIVERSITY BEFORE COMPLETING A POSTDOCTORAL FELLOWSHIP WITH PROFESSOR JOHN YATES, III IN THE DEPARTMENT OF MOLECULAR BIOTECHNOLOGY AT THE UNIVERSITY OF WASHINGTON RESEARCH FOCUS QUANTITATIVE PROTEOMICS AND PROTEIN COMPLEX DYNAMICS</p>

SCHEDULE R  
(Form 990)

Department of the Treasury  
Internal Revenue Service

Related Organizations and Unrelated Partnerships

▶ Complete if the organization answered "Yes" on Form 990, Part IV, line 33, 34, 35b, 36, or 37.  
▶ Attach to Form 990.  
▶ Go to [www.irs.gov/Form990](http://www.irs.gov/Form990) for instructions and the latest information.

OMB No 1545-0047

2019

Open to Public Inspection

Name of the organization  
STOWERS INSTITUTE FOR MEDICAL RESEARCH

Employer identification number  
20-2993509

Part I

Identification of Disregarded Entities. Complete if the organization answered "Yes" on Form 990, Part IV, line 33.

(a) Name, address, and EIN (if applicable) 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

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 entity?	
						Yes	No
(1)STOWERS SCIENTIFIC EDUCATION INSTITUTE 1000 EAST 50TH STREET  KANSAS CITY, MO 64110 20-5916445	SUPPORT ORG	DE	501(C)(3)	12A, I	SIMR	Yes	
(2)STOWERS RESOURCE MANAGEMENTINC 1000 EAST 50TH STREET  KANSAS CITY, MO 64110 41-2186719	SUPPORT ORG	DE	501(C)(3)	12A, I	SIMR	Yes	
(3)BIOMED VALLEY CORPORATION 1000 EAST 50TH STREET  KANSAS CITY, MO 64110 74-3238244	SUPPORT ORG	DE	501(C)(3)	12A, I	SIMR	Yes	
(4)STOWERS REAL ESTATE HOLDING CORPORATION 1000 EAST 50TH STREET  KANSAS CITY, MO 64110 26-1472230	TITLE HOLDING	DE	501(C)(2)	N/A	SRM	Yes	
(5)STOWERS POLICY INSTITUTE INC 1000 EAST 50TH STREET  KANSAS CITY, MO 64110 20-3270502	SEE PART VII	DE	501(C)(4)	N/A	SIMR	Yes	
(6)THE GRADUATE SCHOOL OF SIMR 1000 EAST 50TH STREET  KANSAS CITY, MO 64110 46-4588696	EDUCATION	MO	501(C)(3)	2	SIMR	Yes	

**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) Disproportionate 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	(i) Section 512(b) (13) controlled entity?	
								Yes	No
<b>(1)</b> BIOMED VALLEY DISCOVERIESINC 1000 EAST 50TH STREET KANSAS CITY, MO 64110 06-1646533	SEE PART VII	DE	BVC	C CORP	0	0		Yes	

**Part V Transactions With Related Organizations.** Complete if the organization answered "Yes" on Form 990, Part IV, line 34, 35b, or 36.

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

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, or (iv) rent from a controlled entity . . . . .

1a Yes

b Gift, grant, or capital contribution to related organization(s) . . . . .

1b

No

c Gift, grant, or capital contribution from related organization(s) . . . . .

1c Yes

d Loans or loan guarantees to or for related organization(s) . . . . .

1d

No

e Loans or loan guarantees by related organization(s) . . . . .

1e

No

f Dividends from related organization(s) . . . . .

1f

No

g Sale of assets to related organization(s) . . . . .

1g

No

h Purchase of assets from related organization(s) . . . . .

1h

No

i Exchange of assets with related organization(s) . . . . .

1i

No

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

1j Yes

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

1k Yes

l Performance of services or membership or fundraising solicitations for related organization(s) . . . . .

1l

No

m Performance of services or membership or fundraising solicitations by related organization(s) . . . . .

1m

No

n Sharing of facilities, equipment, mailing lists, or other assets with related organization(s) . . . . .

1n Yes

o Sharing of paid employees with related organization(s) . . . . .

1o Yes

p Reimbursement paid to related organization(s) for expenses . . . . .

1p Yes

q Reimbursement paid by related organization(s) for expenses . . . . .

1q Yes

r Other transfer of cash or property to related organization(s) . . . . .

1r Yes

s Other transfer of cash or property from related organization(s) . . . . .

1s

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

See Additional Data Table

(a) Name of related organization	(b) Transaction type (a-s)	(c) Amount involved	(d) Method of determining amount involved

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**

Provide additional information for responses to questions on Schedule R (see instructions)

Return Reference	Explanation
PART II, LINE (5), COLUMN B	STOWERS POLICY INSTITUTE INC'S ("SPI") PRIMARY ACTIVITY IS TO PROMOTE INNOVATIVE AND ETHICAL BIOMEDICAL RESEARCH, THERAPIES AND CURES, AND TO ADVOCATE FOR A POLITICAL, ECONOMIC AND SOCIAL ENVIRONMENT THAT ADVANCES, FACILITIES, AND PROTECTS THAT RESEARCH AND THOSE THERAPIES AND CURES



Return Reference	Explanation
PART IV, LINE (1), COLUMN B	BIOMED VALLEY DISCOVERIES, INC 'S ("BVD") PRIMARY ACTIVITY IS THE DEVELOPMENT AND MARKETING OF SCIENTIFIC DISCOVERIES BIOMED VALLEY CORPORATION ("BVC") IS THE 100% OWNER OF BVD STOCK

Return Reference	Explanation
PART V, LINE 2 (1) BVD	SIMR RECEIVES ROYALTY PAYMENTS FROM BVD PURSUANT TO A LICENSED TECHNOLOGY AGREEMENT DATED JANUARY 29, 2006 THESE ROYALTY PAYMENTS DO NOT CONSTITUTE GROSS INCOME DERIVED FROM AN UNRELATED TRADE OR BUSINESS UNDER SECTION 512(B)(13) THE ROYALTY PAYMENTS FROM BVD TO SIMR DO NOT REDUCE BVD'S TAXABLE INCOME, WHICH WOULD HAVE BEEN UNRELATED BUSINESS INCOME IF BVD WERE EXEMPT UNDER SECTION 501(C)(3) AND HAD THE SAME EXEMPT PURPOSE AS SIMR IN ADDITION, THE SPECIAL RULE UNDER 512(B)(13)(E) APPLIES

Return Reference	Explanation
PART V, LINE 2 (2) BVD	TYPE A, SIMR RECEIVES SUBLEASE PAYMENTS FROM BVD BASED ON COST FOR LESS THAN 300 SQ FT OF SPACE FOR A LIMITED USE PURPOSE THE RENT PAYMENTS FROM BVD TO SIMR DO NOT REDUCE BVD'S TAXABLE INCOME WHICH WOULD HAVE BEEN UBTI IF BVD WERE EXEMPT UNDER 501(C)(3) AND HAD THE SAME EXEMPT PURPOSE AS SIMR THEREFORE, NO PORTION OF THE RENT PAYMENTS FROM BVD CONSTITUTES UNRELATED BUSINESS INCOME TO SIMR UNDER SECTION 512(B)(13)

Return Reference	Explanation
PART V, LINE 2 (3) SRM	TYPE C, SRM PROVIDED FINANCIAL SUPPORT TO SIMR TO BE USED BY SIMR IN FURTHERANCE OF SIMR'S EXEMPT PURPOSE OF CONDUCTING MEDICAL RESEARCH

Return Reference	Explanation
PART V, LINE 2, (4) SREHC	TYPE K, SIMR ENTERED INTO A LEASE EFFECTIVE JANUARY 1, 2009 WITH SREHC, A 501(C)(2) TAX EXEMPT ORGANIZATION THAT IS A RELATED PARTY TO SIMR THE LEASE HAS AN ORIGINAL TERM OF 10 YEARS WITH A PROVISION FOR ADDITIONAL OPTION YEARS FOR A 280,000 SQUARE FEET BUILDING REFLECTS SIMR'S LEASE PAYMENTS TO SREHC IN 2019

Return Reference	Explanation
PART V, LINE 2, (5) SRM	TYPE P, SIMR REIMBURSED SRM FOR COSTS ASSOCIATED WITH SRM'S ADMINISTRATIVE AND SUPPORT SERVICES PROVIDED TO SIMR SRM IS A SUPPORTING ORGANIZATION TO SIMR

Return Reference	Explanation
PART V, LINE 2, (6) GSSIMR	TYPE P, SIMR REIMBURSED GSSIMR FOR CERTAIN STUDENT EXPENSES INCURRED DURING TIME SPENT IN SIMR LABS

Return Reference	Explanation
PART V, LINE 2, (7) BVD	TYPE P, SIMR REIMBURSED BVD FOR SERVICES ON THE SERVICE COST METHOD



Return Reference	Explanation
PART V, LINE 2, (8) BVD	TYPE Q, BVD REIMBURSED SIMR FOR SERVICES ON THE SERVICE COST METHOD

Return Reference	Explanation
PART V, LINE 2, (9) GSSIMR	TYPE R, EACH ACADEMIC YEAR, SIMR PROVIDES GSSIMR WITH AN APPROPRIATION BASED ON A PER CAPITA FUNDING FORMULA RELATED TO THE NUMBER OF ACTIVELY ENROLLED PREDOCTORAL RESEARCHERS AT GSSIMR

Return Reference	Explanation
PART V, LINE 2, (10)	ALL OTHER TRANSACTIONS FOR LINE 1 WERE BETWEEN 501(C)(3) PUBLIC CHARITIES AND BELOW REPORTING THRESHOLDS

Additional Data

Software ID:  
Software Version:  
EIN: 20-2993509  
Name: STOWERS INSTITUTE FOR MEDICAL RESEARCH

Form 990, Schedule R, Part V - Transactions With Related Organizations

(a) Name of related organization	(b) Transaction type(a-s)	(c) Amount Involved	(d) Method of determining amount involved
BIOMED VALLEY DISCOVERIES INC	A	755,726	MARKET VALUE
BIOMED VALLEY DISCOVERIES INC	A	15,304	MARKET VALUE
STOWERS RESOURCE MANAGEMENT INC	C	63,000,000	MARKET VALUE
STOWERS REAL ESTATE HOLDING CORP	K	2,230,551	MARKET VALUE
STOWERS RESOURCE MANAGEMENT INC	P	26,810,693	COST REIMB
THE GRADUATE SCHOOL OF SIMR	P	1,217,267	COST REIMB
BIOMED VALLEY DISCOVERIES INC	P	342,202	COST REIMB
BIOMED VALLEY DISCOVERIES INC	Q	429,034	COST REIMB
THE GRADUATE SCHOOL OF SIMR	R	1,285,700	MARKET VALUE
SEE PART VII FOR ADDITIONAL INFORMATION			