

**For Paperwork Reduction Act Notice, see the separate instructions.**

**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 \$ 72,463,154	including grants of \$ 350,000	(Revenue \$ 338,850 )
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 \$ )
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<b>4e</b>	Total program service expenses ►	72,463,154
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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

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

	Yes	No
<b>20a</b> Did the organization operate one or more hospital facilities? <i>If "Yes," complete Schedule H . . . . .</i>		No
<b>b</b> If "Yes" to line 20a, did the organization attach a copy of its audited financial statements to this return?		
<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? <i>If "Yes," complete Schedule I, Parts I and II . . . . .</i>	Yes	
<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? <i>If "Yes," complete Schedule I, Parts I and III . . . . .</i>		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? <i>If "Yes," complete Schedule J . . . . .</i>	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? <i>If "Yes," answer lines 24b through 24d and complete Schedule K. If "No," go to line 25a . . . . .</i>		No
<b>b</b> Did the organization invest any proceeds of tax-exempt bonds beyond a temporary period exception? . . . . .		
<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>d</b> Did the organization act as an "on behalf of" issuer for bonds outstanding at any time during the year? . . . . .		
<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? <i>If "Yes," complete Schedule L, Part I . . . . .</i>		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? <i>If "Yes," complete Schedule L, Part I . . . . .</i>		No
<b>26</b> Did the organization report any amount on Part X, line 5, 6, or 22 for receivables from or payables to any current or former officers, directors, trustees, key employees, highest compensated employees, or disqualified persons? <i>If "Yes," complete Schedule L, Part II . . . . .</i>		No
<b>27</b> Did the organization provide a grant or other assistance to an officer, director, trustee, key employee, substantial contributor or employee thereof, a grant selection committee member, or to a 35% controlled entity or family member of any of these persons? <i>If "Yes," complete Schedule L, Part III . . . . .</i>		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, or key employee? <i>If "Yes," complete Schedule L, Part IV . . . . .</i>		No
<b>b</b> A family member of a current or former officer, director, trustee, or key employee? <i>If "Yes," complete Schedule L, Part IV . . . . .</i>	Yes	
<b>c</b> An entity of which a current or former officer, director, trustee, or key employee (or a family member thereof) was an officer, director, trustee, or direct or indirect owner? <i>If "Yes," complete Schedule L, Part IV . . . . .</i>		No
<b>29</b> Did the organization receive more than \$25,000 in non-cash contributions? <i>If "Yes," complete Schedule M . . . . .</i>	Yes	
<b>30</b> Did the organization receive contributions of art, historical treasures, or other similar assets, or qualified conservation contributions? <i>If "Yes," complete Schedule M . . . . .</i>		No
<b>31</b> Did the organization liquidate, terminate, or dissolve and cease operations? <i>If "Yes," complete Schedule N, Part I . . . . .</i>		No
<b>32</b> Did the organization sell, exchange, dispose of, or transfer more than 25% of its net assets? <i>If "Yes," complete Schedule N, Part II . . . . .</i>		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? <i>If "Yes," complete Schedule R, Part I . . . . .</i>		No
<b>34</b> Was the organization related to any tax-exempt or taxable entity? <i>If "Yes," complete Schedule R, Part II, III, or IV, and Part V, line 1 . . . . .</i>	Yes	
<b>35a</b> Did the organization have a controlled entity within the meaning of section 512(b)(13)?	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)? <i>If "Yes," complete Schedule R, Part V, line 2 . . . . .</i>	Yes	
<b>36 Section 501(c)(3) organizations.</b> Did the organization make any transfers to an exempt non-charitable related organization? <i>If "Yes," complete Schedule R, Part V, line 2 . . . . .</i>		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? <i>If "Yes," complete Schedule R, Part VI . . . . .</i>		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 . . . . .	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>	24
<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
<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>	396
<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 <span style="border-bottom: 1px solid black; display: inline-block; width: 200px;"></span> 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</b>	<b>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</b>	<b>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>9a</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</b>	<b>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</b>	<b>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</b>	<b>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</b>	<b>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>	

**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	<b>1a</b>	9		
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	<b>1b</b>	2		
<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?	<b>2</b>		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?	<b>3</b>			No
<b>4</b> Did the organization make any significant changes to its governing documents since the prior Form 990 was filed?	<b>4</b>			No
<b>5</b> Did the organization become aware during the year of a significant diversion of the organization's assets?	<b>5</b>			No
<b>6</b> Did the organization have members or stockholders?	<b>6</b>			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?	<b>7a</b>			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?	<b>7b</b>			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?	<b>8a</b>		Yes	
<b>b</b> Each committee with authority to act on behalf of the governing body?	<b>8b</b>		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.	<b>9</b>			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?	<b>10a</b>		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?	<b>10b</b>			
<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?	<b>11a</b>	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.	<b>12a</b>	Yes		
<b>b</b> Were officers, directors, or trustees, and key employees required to disclose annually interests that could give rise to conflicts?	<b>12b</b>	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.	<b>12c</b>	Yes		
<b>13</b> Did the organization have a written whistleblower policy?	<b>13</b>	Yes		
<b>14</b> Did the organization have a written document retention and destruction policy?	<b>14</b>	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.	<b>15a</b>	Yes		
<b>b</b> Other officers or key employees of the organization.	<b>15b</b>		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?	<b>16a</b>		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?	<b>16b</b>			

**Section C. Disclosure**

<b>17</b> List the States with which a copy of this Form 990 is required to be filed:►	
<b>18</b> Section 6104 requires an organization to make its Form 1023 (or 1024 if applicable), 990, and 990-T (501(c)(3)s only) available for public inspection. Indicate how you made these available. Check all that apply. <input type="checkbox"/> Own website <input type="checkbox"/> Another's website <input checked="" type="checkbox"/> Upon request <input type="checkbox"/> Other (explain in Schedule O)	
<b>19</b> 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.	
<b>20</b> State the name, address, and telephone number of the person who possesses the organization's books and records. ► J SCOTT PETTET 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.

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

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

(A) Name and Title	(B) Average hours per week (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) VIRGINIA G STOWERS DIRECTOR	2 0 ..... 2 0	X						0	0	0
(2) DAVID A WELTE DIRECTOR/SECRETARY	2 0 ..... 47 0	X		X				0	1,326,581	65,268
(3) RODERICK L STURGEON DIRECTOR/CFO	2 0 ..... 46 0	X		X				0	1,555,086	60,068
(4) WILLIAM B NEAVES DIRECTOR/PRESIDENT EMERITUS	20 0 ..... 6 0	X		X				271,262	0	56,102
(5) DAVID M CHAO DIRECTOR/PRESIDENT/CEO	40 0 ..... 4 0	X		X				1,537,787	0	41,442
(6) ROBERT E KRUMLAUF DIRECTOR/SCIENTIFIC DIRECTOR	40 0 ..... 3 0	X						532,371	0	64,232
(7) RICHARD W BROWN DIRECTOR/CHAIR	2 0 ..... 45 0	X		X				0	2,312,275	57,286
(8) ALBERZINE FREEMAN DIR/EVP OF ADMIN (THRU 01/17)	2 0 ..... 4 0	X						0	64,281	3,875
(9) JONATHAN THOMAS DIRECTOR	2 0 ..... 4 0	X						0	0	0
(10) BRENT KREIDER CHIEF OPERATING OFFICER	2 0 ..... 40 0			X				0	581,636	21,746
(11) RONALD C CONAWAY INVESTIGATOR	40 0 ..... 0 0					X		295,477	0	41,442
(12) JOAN W CONAWAY INVESTIGATOR	40 0 ..... 0 0					X		292,489	0	58,280
(13) JERRY L WORKMAN INVESTIGATOR	40 0 ..... 0 0					X		352,675	0	50,571
(14) R SCOTT HAWLEY INVESTIGATOR	40 0 ..... 1 0					X		349,080	0	60,099
(15) LINHENG LI INVESTIGATOR	40 0 ..... 0 0					X		259,205	0	39,475

**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> . . . . .								3,890,346	5,839,859	619,886

**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 ► 45

	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? If "Yes," complete Schedule J for such individual . . . . .		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? If "Yes," complete Schedule J for such individual . . . . .	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? If "Yes," complete Schedule J for such person . . . . .		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
AMERICAN CENTURY INVESTMENTS, 4500 MAIN STREET KANSAS CITY, MO 64111	INDIRECT - SEE SCH O	160,000

**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 ► 1



Part VIII

Statement of Revenue

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

Contributions, Gifts, Grants  
and Other Similar Amounts

	(A) Total revenue	(B) Related or exempt function revenue	(C) Unrelated business revenue	(D) Revenue excluded from tax under sections 512-514
<b>1a</b> Federated campaigns . . . . .	<b>1a</b>			
<b>b</b> Membership dues . . . . .	<b>1b</b>			
<b>c</b> Fundraising events . . . . .	<b>1c</b>			
<b>d</b> Related organizations . . . . .	<b>1d</b>	80,100,000		
<b>e</b> Government grants (contributions) . . . . .	<b>1e</b>	3,827,776		
<b>f</b> All other contributions, gifts, grants, and similar amounts not included above . . . . .	<b>1f</b>	552,466		
<b>g</b> Noncash contributions included in lines 1a-1f \$ . . . . .	80,100,000			
<b>h Total.</b> Add lines 1a-1f . . . . .	84,480,242			

Program Service Revenue

	Business Code			
<b>2a</b> COLLABORATION FEE FROM HHMI 501(C)(3)	900099	338,850	338,850	
<b>b</b> . . . . .				
<b>c</b> . . . . .				
<b>d</b> . . . . .				
<b>e</b> . . . . .				
<b>f</b> All other program service revenue . . . . .				
<b>g Total.</b> Add lines 2a-2f . . . . .	338,850			

Other Revenue

<b>3</b> Investment income (including dividends, interest, and other similar amounts) . . . . .		774,410		774,410
<b>4</b> Income from investment of tax-exempt bond proceeds . . . . .		0		
<b>5</b> Royalties . . . . .		26,000	0	26,000
<b>6a</b> Gross rents . . . . .	(i) Real	(ii) Personal		
	14,779			
<b>b</b> Less rental expenses . . . . .	14,779			
<b>c</b> Rental income or (loss) . . . . .	0	0		
<b>d</b> Net rental income or (loss) . . . . .	0	0	0	0
<b>7a</b> Gross amount from sales of assets other than inventory . . . . .	(i) Securities	(ii) Other		
	87,433,379	82,137		
<b>b</b> Less cost or other basis and sales expenses . . . . .	87,581,505	3,519		
<b>c</b> Gain or (loss) . . . . .	-148,126	78,618		
<b>d</b> Net gain or (loss) . . . . .	-69,508	0	-69,508	
<b>8a</b> Gross income from fundraising events (not including \$ of contributions reported on line 1c) See Part IV, line 18 . . . . .	<b>a</b>	0		
<b>b</b> Less direct expenses . . . . .	<b>b</b>	0		
<b>c</b> Net income or (loss) from fundraising events . . . . .	0			
<b>9a</b> Gross income from gaming activities See Part IV, line 19 . . . . .	<b>a</b>	0		
<b>b</b> Less direct expenses . . . . .	<b>b</b>	0		
<b>c</b> Net income or (loss) from gaming activities . . . . .	0			
<b>10a</b> Gross sales of inventory, less returns and allowances . . . . .	<b>a</b>	0		
<b>b</b> Less cost of goods sold . . . . .	<b>b</b>	0		
<b>c</b> Net income or (loss) from sales of inventory . . . . .	0			
Miscellaneous Revenue . . . . .	Business Code			
<b>11a</b> OTHER REBATES & REVENUE . . . . .	900099	92,662		92,662
<b>b</b> . . . . .				
<b>c</b> . . . . .				
<b>d</b> All other revenue . . . . .				
<b>e Total.</b> Add lines 11a-11d . . . . .	92,662			
<b>12 Total revenue.</b> See Instructions . . . . .	85,642,656	338,850	0	823,564

**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 ☐

	(A) Total expenses	(B) Program service expenses	(C) Management and general expenses	(D) Fundraising expenses
<b>Do not include amounts reported on lines 6b, 7b, 8b, 9b, and 10b of Part VIII.</b>				
<b>1</b> Grants and other assistance to domestic organizations and domestic governments. See Part IV, line 21.	350,000	350,000		
<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, line 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.	2,490,152	2,241,136	249,016	
<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).	0			
<b>7</b> Other salaries and wages.	23,296,243	20,966,619	2,329,624	
<b>8</b> Pension plan accruals and contributions (include section 401 (k) and 403(b) employer contributions).	1,638,893	1,475,004	163,889	
<b>9</b> Other employee benefits.	4,410,652	3,969,587	441,065	
<b>10</b> Payroll taxes.	1,551,277	1,396,149	155,128	
<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).	1,056,210	950,589	105,621	
<b>12</b> Advertising and promotion.	0			
<b>13</b> Office expenses.	205,391	184,852	20,539	
<b>14</b> Information technology.	421,430	379,287	42,143	
<b>15</b> Royalties.	0			
<b>16</b> Occupancy.	2,215,772	1,994,195	221,577	
<b>17</b> Travel.	612,388	551,149	61,239	
<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.	714,196	642,776	71,420	
<b>20</b> Interest.	0			
<b>21</b> Payments to affiliates.	0			
<b>22</b> Depreciation, depletion, and amortization.	9,677,216	8,709,494	967,722	
<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	23,938,413	21,544,572	2,393,841	
<b>b</b> LAB SUPPLIES	6,222,869	5,600,582	622,287	
<b>c</b> NON-CAPITAL EQUIPMENT	231,125	208,012	23,113	
<b>d</b> APPROPRIATION TO GSSIMR	1,050,000	945,000	105,000	
<b>e</b> All other expenses	393,501	354,151	39,350	
<b>25</b> Total functional expenses. Add lines 1 through 24e.	80,475,728	72,463,154	8,012,574	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 . . . . .		2,113,368	<b>2</b>	1,334,981
	<b>3</b>	Pledges and grants receivable, net . . . . .		350,487	<b>3</b>	472,672
	<b>4</b>	Accounts receivable, net . . . . .		0	<b>4</b>	0
	<b>5</b>	Loans and other receivables from current and former officers, directors, trustees, key employees, and highest compensated employees. Complete Part II of Schedule L . . . . .		0	<b>5</b>	0
	<b>6</b>	Loans and other receivables from other disqualified persons (as defined under section 4958(f)(1)), persons described in section 4958(c)(3)(B), and contributing employers and sponsoring organizations of section 501(c)(9) voluntary employees' beneficiary organizations (see instructions). Complete Part II of Schedule L . . . . .		0	<b>6</b>	0
	<b>7</b>	Notes and loans receivable, net . . . . .		0	<b>7</b>	1,447
	<b>8</b>	Inventories for sale or use . . . . .		2,279	<b>8</b>	85,128
	<b>9</b>	Prepaid expenses and deferred charges . . . . .		373,549	<b>9</b>	338,505
	<b>10a</b>	Land, buildings, and equipment—cost or other basis. Complete Part VI of Schedule D . . . . .	<b>10a</b>	327,413,091		
	<b>b</b>	Less: accumulated depreciation . . . . .	<b>10b</b>	181,210,555		
				150,450,344	<b>10c</b>	146,202,536
	<b>11</b>	Investments—publicly traded securities . . . . .		84,258,083	<b>11</b>	92,984,360
	<b>12</b>	Investments—other securities. See Part IV, line 11 . . . . .		502,429	<b>12</b>	672,920
	<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 . . . . .		100,398,501	<b>15</b>	95,276,219	
<b>16</b>	<b>Total assets.</b> Add lines 1 through 15 (must equal line 34) . . . . .		338,449,040	<b>16</b>	337,368,768	
<b>Liabilities</b>	<b>17</b>	Accounts payable and accrued expenses . . . . .		8,156,226	<b>17</b>	8,559,157
	<b>18</b>	Grants payable . . . . .		0	<b>18</b>	0
	<b>19</b>	Deferred revenue . . . . .		312,319	<b>19</b>	247,817
	<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 current and former officers, directors, trustees, key employees, highest compensated employees, and disqualified persons. Complete Part II of Schedule L . . . . .		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 . . . . .		105,441,996	<b>25</b>	99,036,384
	<b>26</b>	<b>Total liabilities.</b> Add lines 17 through 25 . . . . .		113,910,541	<b>26</b>	107,843,358
<b>Net Assets or Fund Balances</b>	<b>Organizations that follow SFAS 117 (ASC 958), check here <input checked="" type="checkbox"/> and complete lines 27 through 29, and lines 33 and 34.</b>					
	<b>27</b>	Unrestricted net assets . . . . .		223,911,846	<b>27</b>	228,975,170
	<b>28</b>	Temporarily restricted net assets . . . . .		626,653	<b>28</b>	550,240
	<b>29</b>	Permanently restricted net assets . . . . .		0	<b>29</b>	0
	<b>Organizations that do not follow SFAS 117 (ASC 958), check here <input type="checkbox"/> and complete lines 30 through 34.</b>					
	<b>30</b>	Capital stock or trust principal, or current funds . . . . .			<b>30</b>	
	<b>31</b>	Paid-in or capital surplus, or land, building or equipment fund . . . . .			<b>31</b>	
	<b>32</b>	Retained earnings, endowment, accumulated income, or other funds . . . . .			<b>32</b>	
	<b>33</b>	<b>Total net assets or fund balances</b> . . . . .		224,538,499	<b>33</b>	229,525,410
<b>34</b>	<b>Total liabilities and net assets/fund balances</b> . . . . .		338,449,040	<b>34</b>	337,368,768	

**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>	85,642,656
<b>2</b>	Total expenses (must equal Part IX, column (A), line 25)	<b>2</b>	80,475,728
<b>3</b>	Revenue less expenses Subtract line 2 from line 1	<b>3</b>	5,166,928
<b>4</b>	Net assets or fund balances at beginning of year (must equal Part X, line 33, column (A))	<b>4</b>	224,538,499
<b>5</b>	Net unrealized gains (losses) on investments	<b>5</b>	106,121
<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>	-286,138
<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>	229,525,410

**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 (2017)

**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. ▶ Information about Schedule A (Form 990 or 990-EZ) and its instructions is at <a href="http://www.irs.gov/form990">www.irs.gov/form990</a> .	OMB No 1545-0047 <b>2017</b> <b>Open to Public Inspection</b>
	Department of the Treasury Internal Revenue Service Name of the organization STOWERS INSTITUTE FOR MEDICAL RESEARCH	Employer identification number 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 \_\_\_\_\_, PART VI, MA  
SEE SCHEDULE A,
- 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 **section 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>					0	0

Part II

Support Schedule for Organizations Described in Sections 170(b)(1)(A)(iv), 170(b)(1)(A)(vi), and 170(b)(1)(A)(ix)  
(Complete only if you checked the box on line 5, 7, 8, or 9 of Part I or if the organization failed to qualify under Part III. If the organization fails to qualify under the tests listed below, please complete Part III.)

Section A. Public Support

	Calendar year (or fiscal year beginning in) ►	(a) 2013	(b) 2014	(c) 2015	(d) 2016	(e) 2017	(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	<b>Total.</b> 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	<b>Public support.</b> Subtract line 5 from line 4						

Section B. Total Support

	Calendar year (or fiscal year beginning in) ►	(a)2013	(b)2014	(c)2015	(d)2016	(e)2017	(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	<b>Total support.</b> Add lines 7 through 10						
12	Gross receipts from related activities, etc. (see instructions)					12	
13	<b>First five years.</b> 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 <b>stop here</b> . . . . . ► <input type="checkbox"/>						

Section C. Computation of Public Support Percentage

14	Public support percentage for 2017 (line 6, column (f) divided by line 11, column (f))	14	
15	Public support percentage for 2016 Schedule A, Part II, line 14	15	

16a

33 1/3% support test—2017. If the organization did not check the box on line 13, and line 14 is 33 1/3% or more, check this box and **stop here.** The organization qualifies as a publicly supported organization

► ☐

b

33 1/3% support test—2016. 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 **stop here.** The organization qualifies as a publicly supported organization

► ☐

17a

10%-facts-and-circumstances test—2017. If the organization did not check a box on line 13, 16a, or 16b, and line 14 is 10% or more, and if the organization meets the "facts-and-circumstances" test, check this box and **stop here.** Explain in Part VI how the organization meets the "facts-and-circumstances" test The organization qualifies as a publicly supported organization

► ☐

b

10%-facts-and-circumstances test—2016. If the organization did not check a box on line 13, 16a, 16b, or 17a, and line 15 is 10% or more, and if the organization meets the "facts-and-circumstances" test, check this box and **stop here.** Explain in Part VI how the organization meets the "facts-and-circumstances" test The organization qualifies as a publicly supported organization

► ☐

18

Private foundation. If the organization did not check a box on line 13, 16a, 16b, 17a, or 17b, check this box and see instructions

► ☐

**Part 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) 2013	(b) 2014	(c) 2015	(d) 2016	(e) 2017	(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) 2013	(b) 2014	(c) 2015	(d) 2016	(e) 2017	(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 2017 (line 8, column (f) divided by line 13, column (f))	<b>15</b>	
<b>16</b> Public support percentage from 2016 Schedule A, Part III, line 15	<b>16</b>	

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

<b>17</b> Investment income percentage for <b>2017</b> (line 10c, column (f) divided by line 13, column (f))	<b>17</b>	
<b>18</b> Investment income percentage from <b>2016</b> Schedule A, Part III, line 17	<b>18</b>	

**19a 33 1/3% support tests—2017.** 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—2016.** 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?		
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		

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		
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		

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)		

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?		
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)		
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		

Section E. Type III Functionally-Integrated Supporting Organizations

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.	Yes	No
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		
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		
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.		
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		

**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 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 Total</b> (add lines 1a, 1b, and 1c)	<b>1d</b>		
<b>e 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 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 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)

Section D - Distributions	Current Year
<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 2017 from Section C, line 6	
<b>10</b> Line 8 amount divided by Line 9 amount	

Section E - Distribution Allocations (see instructions)	(i) Excess Distributions	(ii) Underdistributions Pre-2017	(iii) Distributable Amount for 2017
<b>1</b> Distributable amount for 2017 from Section C, line 6			
<b>2</b> Underdistributions, if any, for years prior to 2017 (reasonable cause required-- explain in Part VI) See instructions			
<b>3</b> Excess distributions carryover, if any, to 2017			
<b>a</b>			
<b>b</b> From 2013. . . . .			
<b>c</b> From 2014. . . . .			
<b>d</b> From 2015. . . . .			
<b>e</b> From 2016. . . . .			
<b>f Total</b> of lines 3a through e			
<b>g</b> Applied to underdistributions of prior years			
<b>h</b> Applied to 2017 distributable amount			
<b>i</b> Carryover from 2012 not applied (see instructions)			
<b>j</b> Remainder Subtract lines 3g, 3h, and 3i from 3f			
<b>4</b> Distributions for 2017 from Section D, line 7 \$			
<b>a</b> Applied to underdistributions of prior years			
<b>b</b> Applied to 2017 distributable amount			
<b>c</b> Remainder Subtract lines 4a and 4b from 4			
<b>5</b> Remaining underdistributions for years prior to 2017, if any Subtract lines 3g and 4a from line 2 If the amount is greater than zero, explain in Part VI See instructions			
<b>6</b> Remaining underdistributions for 2017 Subtract lines 3h and 4b from line 1 If the amount is greater than zero, explain in Part VI See instructions			
<b>7 Excess distributions carryover to 2018.</b> Add lines 3j and 4c			
<b>8</b> Breakdown of line 7			
<b>a</b> Excess from 2013. . . . .			
<b>b</b> Excess from 2014. . . . .			
<b>c</b> Excess from 2015. . . . .			
<b>d</b> Excess from 2016. . . . .			
<b>e</b> Excess from 2017. . . . .			

**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
<p>PART I, LINE 4</p>	<p>COOPERATION AGREEMENTS AND COLLABORATIONS IN 2017, STOWERS INSTITUTE FOR MEDICAL RESEARCH ("SIMR") SCIENTISTS COLLABORATED WITH RESEARCHERS AT MORE THAN 60 NATIONAL INSTITUTIONS AND MORE THAN 40 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, 2017, FIVE KUMC STUDENTS HAVE RECEIVED M.S. DEGREES AND ABOUT 40 HAVE RECEIVED PH.D. 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. TWENTY-TWO SIMR RESEARCH PROGRAM LEADERS ARE ADJUNCT FACULTY IN FOUR KUMC DEPARTMENTS. THESE APPOINTMENTS INCLUDE 12 FULL PROFESSORS, SIX ASSOCIATE PROFESSORS, AND FOUR ASSISTANT PROFESSORS. IN 2017, 43 OF SIMR'S 64 ORIGINAL RESEARCH PUBLICATIONS INCLUDED BOTH SIMR AND KUMC AFFILIATIONS. ABOUT 15 KUMC STUDENTS PERFORMED PREDOCTORAL RESEARCH IN SIMR LABS IN 2017. 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 AS 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. CURRENTLY, 12 SIMR RESEARCH PROGRAM LEADERS ARE MEMBERS OF THE UNIVERSITY OF KANSAS CANCER CENTER'S CANCER BIOLOGY RESEARCH PROGRAM, INCLUDING LINHENG LI, PH.D., WHO SERVES AS CO-LEADER OF THE PROGRAM. IN 2017, SIMR RESEARCH PROGRAM LEADER PAUL KULESA, PH.D., CONTINUED A RESEARCH COLLABORATION WITH DANNY WELCH, PH.D., PROFESSOR AND CHAIR OF THE DEPARTMENT OF CANCER BIOLOGY AT KUMC AND ASSOCIATE DIRECTOR OF THE UNIVERSITY OF KANSAS CANCER CENTER. THE COLLABORATION FOCUSES ON UNDERSTANDING MECHANISMS THAT UNDERLIE THE DEVELOPMENT OF NEUROBLASTOMA. DR. WELCH IS AN ACCOMPLISHED RESEARCHER IN THE AREA OF TUMOR PROGRESSION AND UNDERLYING GENETICS.</p>

990 Schedule A, Supplemental Information

Return Reference	Explanation
<p>PART I, LINE 4</p>	<p>C AND EPIGENETIC CONTROLS THIS WORK IS SUPPORTED BY AN NIH GRANT FROM THE NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE IN 2017, SIMR RESEARCH PROGRAM LEADER MICHAEL WASHBURN, PH D , INITIATED A RESEARCH PROJECT IN COLLABORATION WITH ROY JENSEN, M D , 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 PROFESSOR 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 2017, SIMR RESEARCH PROGRAM LEADER LINHENG LI, PH D , COLLABORATED WITH 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 KUMC IS THE SPONSOR OF A RELATED CLINICAL RESEARCH STUDY, "A PILOT STUDY OF 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 ALSO 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 2017 INSTITUTION LOCATION BOSTON CHILDREN'S HOSPITAL BOSTON, MA BRIGHAM AND WOMEN'S HOSPITAL BOSTON, MA CHILDREN'S HOSPITAL OF PHILADELPHIA PHILADELPHIA, PA CHILDREN'S MERCY HOSPITAL KANSAS CITY, MO CHILDREN'S NATIONAL HEALTH SYSTEM WASHINGTON, DC CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER CINCINNATI, OH CITY OF HOPE COMPREHENSIVE CANCER CENTER DUARTE, CA COLUMBIA UNIVERSITY MEDICAL CENTER NEW YORK, NY DANA-FARBER CANCER INSTITUTE BOSTON, MA DAVID GEFFEN SCHOOL OF MEDICINE AT UCLA LOS ANGELES, CA</p>

**990 Schedule A, Supplemental Information**

Return Reference	Explanation
PART I, LINE 4	<p>ARVARD MEDICAL SCHOOL BOSTON, MA ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI NEW YORK, NY JOHN S HOPKINS SCHOOL OF MEDICINE BALTIMORE, MD KECK SCHOOL OF MEDICINE AT USC LOS ANGELES, CA MATTEL CHILDREN'S HOSPITAL AT UCLA LOS ANGELES, CA MAYO CLINIC ROCHESTER, MN MOFFITT CANCER CENTER TAMPA, FL NEW YORK UNIVERSITY LANGONE MEDICAL CENTER NEW YORK, NY NEW YORK UNIVERSITY SCHOOL OF MEDICINE NEW YORK, NY NORTHWESTERN UNIVERSITY FEINBERG SCHOOL OF MEDICINE CHICAGO, IL OREGON HEALTH AND SCIENCE UNIVERSITY PORTLAND, OR ROSWELL PARK COMPREHENSIVE CANCER CENTER BUFFALO, NY SAINT LOUIS UNIVERSITY SCHOOL OF MEDICINE ST LOUIS, MO ST JUDE CHILDREN'S RESEARCH HOSPITAL MEMPHIS, TN STANFORD UNIVERSITY SCHOOL OF MEDICINE PALO ALTO, CA UNIVERSITY OF CALIFORNIA SAN DIEGO SCHOOL OF MEDICINE SAN DIEGO, CA UNIVERSITY OF CALIFORNIA SAN FRANCISCO SAN FRANCISCO, CA UNIVERSITY OF CINCINNATI COLLEGE OF MEDICINE CINCINNATI, OH UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS AURORA, CO UNIVERSITY OF CONNECTICUT HEALTH CENTER FARMINGTON, CT UNIVERSITY OF KANSAS CANCER CENTER KANSAS CITY, KS UNIVERSITY OF KANSAS MEDICAL CENTER KANSAS CITY, KS UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE CHAPEL HILL, NC UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER OKLAHOMA CITY, OK UNIVERSITY OF PENNSYLVANIA PERELMAN SCHOOL OF MEDICINE PHILADELPHIA, PA UNIVERSITY OF ROCHESTER MEDICAL CENTER ROCHESTER, NY VANDERBILT UNIVERSITY MEDICAL CENTER NASHVILLE, TN VETERANS AFFAIRS CONNECTICUT HEALTH SYSTEM WEST HAVEN, CT WALTER REED NATIONAL MILITARY MEDICAL CENTER BETHESDA, MD YALE SCHOOL OF MEDICINE NEW HAVEN, CT 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>



# 990 Schedule A, Supplemental Information

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 GEFKEN 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, SUPPORTED IN PART BY A NIH GRANT AWARDED BY THE NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES, HAS GENERATED FINDINGS THAT HAVE BEEN REPORTED IN MULTIPLE ORIGINAL RESEARCH PUBLICATIONS INCLUDING YAN KS, ET AL, 2017.</p> <p>JOINT MEDICAL RESEARCH ON ORIGINS OF AND TREATMENT FOR OROFACIAL CLEFTING - THE TRAINOR LAB PERFORMED JOINT MEDICAL RESEARCH ON CLEFTING OF THE MOUTH AND FACE WITH COLLABORATORS AT THE UNIVERSITY OF CALIFORNIA DAVIS SCHOOL OF MEDICINE. OROFACIAL CLEFTS ARE AMONG THE MOST COMMON TYPES OF BIRTH DEFECTS. MUTATIONS IN THE PAK1IP1 GENE ARE KNOWN TO CAUSE OROFACIAL CLEFTING AND PAK1IP1 MUTANT MOUSE MODELS HAVE BEEN DEVELOPED. THIS PROJECT INVESTIGATES THE MOLECULAR AND CELLULAR ETIOLOGY OF OROFACIAL CLEFTING IN THE MOUSE MODELS WHICH MAY LEAD TO NEW APPROACHES FOR THERAPY AND GENETIC TESTING IN HUMANS. THIS ONGOING RESEARCH IS SUPPORTED IN PART BY A NIH GRANT FROM THE NATIONAL INSTITUTE OF DENTAL AND CRANIOFACIAL RESEARCH.</p> <p>JOINT MEDICAL RESEARCH ON MECHANISMS OF NEURODEGENERATIVE AMYLOID DISEASES - THE SI LAB PERFORMED JOINT MEDICAL RESEARCH ON THE STRUCTURE AND FUNCTION OF AMYLOIDS WITH COLLABORATORS AT THE KECK SCHOOL OF MEDICINE AT USC. AMYLOID FIBRILS ARE FOUND IN MANY NEURODEGENERATIVE DISEASES BUT THEIR MECHANISM OF TOXICITY IS NOT FULLY UNDERSTOOD. AN INCREASING NUMBER OF NONTOXIC, FUNCTIONAL AMYLOIDS HAVE BEEN DESCRIBED, INCLUDING PROTEINS THAT ARE IMPORTANT FOR NEURONAL GROWTH AND LONG-TERM MEMORY. DETERMINING THE STRUCTURE OF FUNCTIONAL AMYLOIDS AND HOW THEIR AGGREGATION IS REGULATED PROVIDES A BETTER UNDERSTANDING OF TOXIC AMYLOIDS AND MAY REVEAL NEW APPROACHES TO TREATING NEURODEGENERATIVE AMYLOID DISEASES. THIS ONGOING COLLABORATIVE RESEARCH IS SUPPORTED IN PART BY A NIH GRANT FROM THE NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES.</p> <p>OTHER US COLLABORATORS INCLUDED BRIGHAM YOUNG UNIVERSITY-IDAHO, BROWN UNIVERSITY, CORNELL UNIVERSITY, EUNICE KENNEDY SHRIVER NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT OF THE NATIONAL INSTITUTES OF HEALTH, FRED HUTCHINSON CANCER RESEARCH CENTER, HARVARD UNIVERSITY, HOWARD HUGHES MEDICAL INSTITUTE, JOHNS HOPKINS UNIVERSITY, LOYOLA UNIVERSITY CHICAGO, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, MICHIGAN STATE UNIVERSITY, NATIONAL CANCER INSTITUTE, NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES,</p>

# 990 Schedule A, Supplemental Information

Return Reference	Explanation
JOINT MEDICAL RESEARCH ON THE CHARACTERIZATION OF INTESTINAL STEM CELLS -	<p>NEW YORK UNIVERSITY, NORTHWESTERN UNIVERSITY, PURDUE UNIVERSITY, ROCKHURST UNIVERSITY, SC RIPPS RESEARCH INSTITUTE, UNIVERSITY OF CALIFORNIA BERKELEY, UNIVERSITY OF CALIFORNIA SAN DIEGO, UNIVERSITY OF CONNECTICUT, UNIVERSITY OF KENTUCKY, UNIVERSITY OF LOUISVILLE, UNIVERSITY OF PENNSYLVANIA, UNIVERSITY OF RHODE ISLAND, UNIVERSITY OF UTAH, UNIVERSITY OF WASHINGTON, UNIVERSITY OF WISCONSIN-MADISON, VANDERBILT UNIVERSITY, AND YALE UNIVERSITY SIMR COLLABORATED WITH THE FOLLOWING INTERNATIONAL HOSPITALS, MEDICAL CENTERS, AND MEDICAL SCHOOLS IN 2017: CHANGCHUN UNIVERSITY OF CHINESE MEDICINE, CHINA, HAMAMATSU UNIVERSITY SCHOOL OF MEDICINE, JAPAN, HOSPITAL OF STOMATOLOGY AT SUN YAT-SEN UNIVERSITY, GUANGDONG, CHINA, KOC HI MEDICAL SCHOOL, JAPAN, PEOPLE'S HOSPITAL OF NINGXIA HUI AUTONOMOUS REGION, YINCHUAN, CHINA, SHANDONG PROVINCIAL HOSPITAL, CHINA, TOKYO MEDICAL AND DENTAL UNIVERSITY, JAPAN, WENZHOU MEDICAL UNIVERSITY, ZHEJIANG, CHINA, AND XUZHOU MEDICAL UNIVERSITY, JIANGSU, CHINA. OTHER INTERNATIONAL COLLABORATORS INCLUDED BARCELONA INSTITUTE OF SCIENCE AND TECHNOLOGY, SPAIN, CHINESE ACADEMY OF AGRICULTURAL SCIENCES, SHENZHEN, CHINA, DANKOOK UNIVERSITY, CHUNGNAM, SOUTH KOREA, FRANCIS CRICK INSTITUTE AT CLARE HALL LABORATORIES, SOUTH MIMMS, UK, HELM HOLTZ CENTER, MUNICH, GERMANY, IMPERIAL COLLEGE, LONDON, UK, INSTITUCIO CATALANA DE RECERCA I ESTUDIS AVANÇATS, BARCELONA, SPAIN, INSTITUTE FOR STEM CELL BIOLOGY AND REGENERATIVE MEDICINE, BANGALORE, INDIA, INSTITUTE OF MOLECULAR GENETICS OF THE CZECH ACADEMY OF SCIENCES, VESTEC, CZECH REPUBLIC, JILIN UNIVERSITY, CHANGCHUN, CHINA, JINAN UNIVERSITY, GUANGDONG, CHINA, KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY, DAEJEON, SOUTH KOREA, KUNMING UNIVERSITY OF SCIENCE AND TECHNOLOGY, YUNNAN, CHINA, KYOTO UNIVERSITY, JAPAN, LAVAL UNIVERSITY, QUEBEC, CANADA, MANIPAL UNIVERSITY, INDIA, OSAKA UNIVERSITY, JAPAN, POLYTECHNIC UNIVERSITY OF MARCHE, ANCONA, ITALY, QINGDAO AGRICULTURAL UNIVERSITY, SHANDONG, CHINA, SUN YAT-SEN UNIVERSITY, GUANGZHOU, CHINA, TOKUSHIMA UNIVERSITY, JAPAN, UNIVERSIDAD DE CONCEPCION, CHILE, UNIVERSITAT POMPEU FABRA, BARCELONA, SPAIN, UNIVERSITE DE STRASBOURG, ILLKIRCH-STRASBOURG, FRANCE, UNIVERSITY OF FERRARA, ITALY, UNIVERSITY OF HELSINKI, FINLAND, UNIVERSITY OF HYOGO, JAPAN, UNIVERSITY OF LAUSANNE, SWITZERLAND, UNIVERSITY OF LEUVEN, BELGIUM, UNIVERSITY OF MACAU, CHINA, UNIVERSITY OF MODENA AND REGGIO EMILIA, ITALY, UNIVERSITY OF OXFORD, UK, AND UNIVERSITY OF TOKYO, JAPAN OF TOKYO, JAPAN</p>

Schedule A Form 990 or 990-EZ 2012

efile GRAPHIC print - DO NOT PROCESS		As Filed Data -		DLN: 93493222002278	
<b>SCHEDULE D</b> (Form 990)		<b>Supplemental Financial Statements</b>			OMB No 1545-0047
Department of the Treasury Internal Revenue Service		<p>► 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.</p> <p>Information about Schedule D (Form 990) and its instructions is at <a href="http://www.irs.gov/form990">www.irs.gov/form990</a>.</p>			<b>2017</b> <b>Open to Public Inspection</b>
Name of the organization STOWERS INSTITUTE FOR MEDICAL RESEARCH				Employer identification number 20-2993509	
<b>Part I Organizations Maintaining Donor Advised Funds or Other Similar Funds or Accounts.</b> Complete if the organization answered "Yes" on Form 990, Part IV, line 6.					
		(a) Donor advised funds		(b) Funds and other accounts	
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?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
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?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Part II Conservation Easements.</b> 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)					
<input type="checkbox"/> Preservation of land for public use (e g , recreation or education) <input type="checkbox"/> Preservation of an historically important land area					
<input type="checkbox"/> Protection of natural habitat <input type="checkbox"/> Preservation of a certified historic structure					
<input type="checkbox"/> Preservation of open space					
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					
				<b>Held at the End of the Year</b>	
a Total number of conservation easements				2a	
b Total acreage restricted by conservation easements				2b	
c Number of conservation easements on a certified historic structure included in (a)				2c	
d Number of conservation easements included in (c) acquired after 8/17/06, and not on a historic structure listed in the National Register				2d	
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? <input type="checkbox"/> Yes <input type="checkbox"/> No					
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)? <input type="checkbox"/> Yes <input type="checkbox"/> No					
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					
<b>Part III Organizations Maintaining Collections of Art, Historical Treasures, or Other Similar Assets.</b> 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					
b 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) 2017		

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	626,653	39,191	0		
b Contributions	100,000	661,216	100,000		
c Net investment earnings, gains, and losses					
d Grants or scholarships					
e Other expenditures for facilities and programs	176,413	73,754	60,809		
f Administrative expenses					
g End of year balance	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

3a(i)

No

(ii) related organizations

3a(ii)

No

b

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

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		228,010,748	103,059,663	124,951,085
c Leasehold improvements				
d Equipment		94,095,823	78,150,892	15,944,931
e Other		1,906,520	0	1,906,520
Total. Add lines 1a through 1e (Column (d) must equal Form 990, Part X, column (B), line 10(c))				146,202,536

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	95,248,919
(2) OTHER RECEIVABLES	27,300
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
Total. (Column (b) must equal Form 990, Part X, col (B) line 15 ) . . . . . ▶	95,276,219

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.

1. (a) Description of liability	(b) Book value
(1) Federal income taxes	0
ADVANCES FROM AFFILIATES	6,062,374
ANNUITY PAYABLE	92,974,010
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
Total. (Column (b) must equal Form 990, Part X, col (B) line 25 ) ▶	99,036,384

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

☒

**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 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 I  
(Form 990)

Department of the Treasury  
Internal Revenue Service

Name of the organization  
STOWERS INSTITUTE FOR MEDICAL RESEARCH

Grants and Other Assistance to Organizations,  
Governments and Individuals in the United States

Complete if the organization answered "Yes," on Form 990, Part IV, line 21 or 22.  
▶ Attach to Form 990.  
▶ Information about Schedule I (Form 990) and its instructions is at [www.irs.gov/form990](http://www.irs.gov/form990).

OMB No 1545-0047

2017

Open to Public Inspection

Employer identification number  
20-2993509

Part I General Information on Grants and Assistance

1

Does the organization maintain records to substantiate the amount of the grants or assistance, the grantees' eligibility for the grants or assistance, and the selection criteria used to award the grants or assistance?

☒ Yes ☐ No

2

Describe in Part IV the organization's procedures for monitoring the use of grant funds in the United States

Part II Grants and Other Assistance to Domestic Organizations and Domestic Governments. Complete if the organization answered "Yes" on Form 990, Part IV, line 21, for any recipient that received more than \$5,000 Part II can be duplicated if additional space is needed

(a) Name and address of organization or government	(b) EIN	(c) IRC section (if applicable)	(d) Amount of cash grant	(e) Amount of non-cash assistance	(f) Method of valuation (book, FMV, appraisal, other)	(g) Description of noncash assistance	(h) Purpose of grant or assistance
(1) THE GRADUATE SCHOOL OF SIMR 1000 EAST 50TH STREET KANSAS CITY, MO 64110	46-4588696	501(C)(3)		350,000	FMV	F I SECURITIES	SEE PART IV

2

Enter total number of section 501(c)(3) and government organizations listed in the line 1 table . . . . .

1

3

Enter total number of other organizations listed in the line 1 table . . . . .

**Part III** **Grants and Other Assistance to Domestic Individuals.** Complete if the organization answered "Yes" on Form 990, Part IV, line 22  
Part III can be duplicated if additional space is needed

(a) Type of grant or assistance	(b) Number of recipients	(c) Amount of cash grant	(d) Amount of noncash assistance	(e) Method of valuation (book, FMV, appraisal, other)	(f) Description of noncash assistance
(1)					
(2)					
(3)					
(4)					
(5)					
(6)					
(7)					

**Part IV** **Supplemental Information.** Provide the information required in Part I, line 2; Part III, column (b); and any other additional information.

Return Reference	Explanation
PART II, LINE 1	SIMR CONTRIBUTES ANNUAL FUNDING TO FINANCE THE GRADUATE SCHOOL OF THE STOWERS INSTITUTE FOR MEDICAL RESEARCH ("GSSIMR") GSSIMR'S EXEMPT PURPOSE IS TO PROVIDE GRADUATE EDUCATION THAT WILL PREPARE SCHOLARS FOR SCIENTIFIC RESEARCH IN THE BIOLOGICAL SCIENCES GSSIMR OFFERS A RESEARCH BASED PH D DEGREE IN BIOLOGY AND OTHER INSTRUCTION PROGRAMS

**Schedule J**  
(Form 990)

**Compensation Information**

OMB No 1545-0047

Department of the Treasury  
Internal Revenue Service

**For certain Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees**  
**▶ Complete if the organization answered "Yes" on Form 990, Part IV, line 23.**  
**▶ Attach to Form 990.**  
**▶ Information about Schedule J (Form 990) and its instructions is at [www.irs.gov/form990](http://www.irs.gov/form990).**

**2017**

**Open to Public Inspection**

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. <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> First-class or charter travel  <input type="checkbox"/> Travel for companions  <input checked="" type="checkbox"/> Tax indemnification and gross-up payments  <input type="checkbox"/> Discretionary spending account                 </div> <div> <input type="checkbox"/> Housing allowance or residence for personal use  <input type="checkbox"/> Payments for business use of personal residence  <input type="checkbox"/> Health or social club dues or initiation fees  <input type="checkbox"/> Personal services (e.g., maid, chauffeur, chef)                 </div> </div>		
<b>b</b> If any of the boxes in line 1a are checked, did the organization follow a written policy regarding payment or reimbursement or provision of all of the expenses described above? If "No," complete Part III to explain.	1b 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 in line 1a?	2 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. <div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Compensation committee  <input checked="" type="checkbox"/> Independent compensation consultant  <input type="checkbox"/> Form 990 of other organizations                 </div> <div> <input checked="" type="checkbox"/> Written employment contract  <input checked="" type="checkbox"/> Compensation survey or study  <input checked="" type="checkbox"/> Approval by the board or compensation committee                 </div> </div>		
<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: <div style="display: flex; justify-content: space-between;"> <div> <b>a</b> Receive a severance payment or change-of-control payment?                 </div> <div> <b>b</b> Participate in, or receive payment from, a supplemental nonqualified retirement plan?                 </div> <div> <b>c</b> Participate in, or receive payment from, an equity-based compensation arrangement?                 </div> </div> If "Yes" to any of lines 4a-c, list the persons and provide the applicable amounts for each item in Part III.	4a No 4b No 4c No	
<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: <div style="display: flex; justify-content: space-between;"> <div> <b>a</b> The organization?                 </div> <div> <b>b</b> Any related organization?                 </div> </div> If "Yes," on line 5a or 5b, describe in Part III.	5a No 5b No	
<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: <div style="display: flex; justify-content: space-between;"> <div> <b>a</b> The organization?                 </div> <div> <b>b</b> Any related organization?                 </div> </div> If "Yes," on line 6a or 6b, describe in Part III.	6a No 6b No	
<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.	7 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.	8 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)?	9	

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 WRITTEN EMPLOYMENT CONTRACTS WITH WILLIAM B. NEAVES, PRESIDENT EMERITUS, AND DAVID M. CHAO, PRESIDENT, WHICH PROVIDES FOR TAXABLE TERM LIFE BENEFITS AND FOR THE EXECUTIVES TO RECEIVE TAX GROSS-UP PAYMENTS SUFFICIENT TO COVER THE TAXES ON THE BENEFITS.
PART I, LINE 1B	SIMR PROVIDED THE BENEFITS DESCRIBED IN RESPONSE TO LINE 1A PURSUANT TO WRITTEN EMPLOYMENT CONTRACTS THAT WERE 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.

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)	1,242,446	0	84,135	40,500	24,768	1,391,849	
1RODERICK L STURGEON DIRECTOR/CFO	(i)	0	0	0	0	0	0	0
	(ii)	1,449,711	0	105,375	40,500	19,568	1,615,154	
2WILLIAM B NEAVES DIRECTOR/PRESIDENT EMERITUS	(i)	261,577	0	9,685	39,535	16,567	327,364	
	(ii)	0	0	0	0	0	0	0
3DAVID M CHAO DIRECTOR/PRESIDENT/CEO	(i)	1,527,244	0	10,543	40,500	942	1,579,229	
	(ii)	0	0	0	0	0	0	0
4ROBERT E KRUMLAUF DIRECTOR/SCIENTIFIC DIRECTOR	(i)	528,180	0	4,191	40,500	23,732	596,603	
	(ii)	0	0	0	0	0	0	0
5RONALD C CONAWAY INVESTIGATOR	(i)	291,913	0	3,564	40,500	942	336,919	
	(ii)	0	0	0	0	0	0	0
6JOAN W CONAWAY INVESTIGATOR	(i)	288,925	0	3,564	40,500	17,780	350,769	
	(ii)	0	0	0	0	0	0	0
7JERRY L WORKMAN INVESTIGATOR	(i)	349,111	0	3,564	40,500	10,071	403,246	
	(ii)	0	0	0	0	0	0	0
8R SCOTT HAWLEY INVESTIGATOR	(i)	345,516	0	3,564	40,500	19,599	409,179	
	(ii)	0	0	0	0	0	0	0
9RICHARD W BROWN DIRECTOR/CHAIR	(i)	0	0	0	0	0	0	0
	(ii)	2,282,786	0	29,489	40,500	16,786	2,369,561	
10BRENT KREIDER CHIEF OPERATING OFFICER	(i)	0	0	0	0	0	0	0
	(ii)	573,380	0	8,256	0	21,746	603,382	
11LINHENG LI INVESTIGATOR	(i)	256,883	0	2,322	38,533	942	298,680	
	(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.  
► Information about Schedule L (Form 990 or 990-EZ) and its instructions is at [www.irs.gov/form990](http://www.irs.gov/form990).

OMB No 1545-0047

2017

Open to Public Inspection

Name of the organization  
STOWERS INSTITUTE FOR MEDICAL RESEARCH

Employer identification number  
20-2993509

Part I Excess Benefit Transactions (section 501(c)(3), section 501(c)(4), and 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 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	144,617	EMPLOYEE OF SIMR		No
(2) LEANNE WIEDEMANN PhD	SEE PART V	217,118	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, LINE (1) & (2)	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 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

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.  
►Information about Schedule M (Form 990) and its instructions is at [www.irs.gov/form990](http://www.irs.gov/form990)

OMB No 1545-0047

2017

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	80,100,000	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 is not 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

No

31

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

Yes

No

32a

No

b If "Yes," describe in Part II

33

If the organization did not 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: 93493222002278
<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. ▶ Information about Schedule O (Form 990 or 990-EZ) and its instructions is at <a href="http://www.irs.gov/form990">www.irs.gov/form990</a> .		OMB No 1545-0047
			<b>2017</b>
Department of the Treasury <del>Internal Revenue Service</del>			<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
FORM 990, PART III, LINE 1	<p>THE STOWERS INSTITUTE FOR MEDICAL RESEARCH PERFORMS MEDICAL RESEARCH IN THE PUBLIC INTEREST WITH THE GOAL OF EXPANDING OUR UNDERSTANDING OF FUNDAMENTAL PROCESSES IN LIVING CELLS AND IMPROVING LIFE'S QUALITY THROUGH INNOVATIVE APPROACHES TO THE CAUSES, TREATMENT, AND PREVENTION OF DISEASE. FORM 990, PART III, LINE 4. SIMR'S ACCOMPLISHMENTS ARE DESCRIBED AT END OF SCHEDULE O. FORM 990, PART VI, LINE 2. VIRGINIA G. STOWERS, JONATHAN THOMAS, RICHARD W. BROWN, DAVID A. WELTE, WILLIAM B. NEAVES, DAVID M. CHAO AND RODERICK L. STURGEON, ALL DIRECTORS OF SIMR, HAVE A BUSINESS RELATIONSHIP. JONATHAN THOMAS, RICHARD W. BROWN, WILLIAM B. NEAVES, DAVID A. WELTE, DAVID M. CHAO, RODERICK L. STURGEON, AND ALBERZINE FREEMAN, DIRECTORS OF SIMR, AND BRENT KREIDER, OFFICER OF SIMR, HAVE A BUSINESS RELATIONSHIP. DAVID A. WELTE, RICHARD W. BROWN, RODERICK L. STURGEON, AND ALBERZINE FREEMAN, DIRECTORS OF SIMR, AND BRENT KREIDER, OFFICER OF SIMR, HAVE A BUSINESS RELATIONSHIP. FORM 990, 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 OUR TAX ATTORNEY AT BRYAN CAVE, LLP. PRICEWATERHOUSECOOPERS ("PWC"), OUR EXTERNAL TAX PREPARERS, USE 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. FORM 990, PART VI, LINE 12C. SIMR HAS ADOPTED A "CONFLICTS OF INTEREST AND DIRECTOR INDEPENDENCE POLICY." EACH DIRECTOR, OFFICER, AND OTHER PERSON WHO IS 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, LINES 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 2016. FORM 990, PART VI, LINE 19. SIMR'S G.</p>

**990 Schedule O, Supplemental Information**

Return Reference	Explanation
FORM 990, PART III, LINE 1	<p>OVERNING DOCUMENTS, CONFLICT OF INTEREST POLICY, AND FINANCIAL STATEMENTS ARE AVAILABLE ON REQUEST FORM 990, 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 SI MR EMPLOYEES AND SIMR IS REIMBURSED BY THE RELATED ORGANIZATIONS FORM 990, PART VII, SECT ION B SIMR RECEIVES INVESTMENT MANAGEMENT SERVICES FROM AMERICAN CENTURY INVESTMENTS (ACI ) ACI IS A WHOLLY OWNED SUBSIDIARY OF AMERICAN CENTURY COMPANIES, INC (ACCI) IN SELECTI NG ACI TO MANAGE ITS LIQUID INVESTMENTS, SIMR NOT ONLY SELECTED A HIGH QUALITY MUTUAL FUND COMPANY WITH AN OUTSTANDING TRACK RECORD, BUT ALSO PLACED ITS LIQUID INVESTMENTS IN A COM PANY 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 IN VESTMENT POOL ARE PAID BY ITS SUPPORTING ORGANIZATION, SRM FORM 990, PART XI, LINE 9 OTH ER CHANGES IN NET ASSETS INCLUDE THE FOLLOWING CHANGE IN ANNUITY RECEIVABLE, NET (286,138 )</p>

**990 Schedule O, Supplemental Information**

Return Reference	Explanation
FORM 990, PART III, LINE 4a	<p>2017 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. 2017 NOTABLE RESEARCH RESULTS IN 2017, SIMR RESEARCH TEAMS MADE DISCOVERIES WORTH PUBLICATION IN LEADING PEER-REVIEWED SCIENTIFIC JOURNALS - 64 ORIGINAL RESEARCH PAPERS IN ALL. SIMR RESEARCH TEAMS ALSO PRODUCED 22 OTHER PUBLICATIONS INCLUDING REVIEWS, COMMENTARIES, BOOK CHAPTERS, AND BOOKS. SOME OF THE HIGHLIGHTS AMONG PAPERS PUBLISHED IN 2017 INCLUDE THE SNCHEZ ALVARADO LAB PUBLISHED A REPORT THAT COMPREHENSIVELY CHRONICLES HOW THE PLANARIAN FLATWORM DEVELOPS STAGE-BY-STAGE AS AN EMBRYO. THE ABILITY OF PLANARIAN FLATWORMS TO REGENERATE IS UNPARALLELED AMONG OTHER ORGANISMS. IF AN ADULT WORM IS CUT APART, ALMOST ANY PIECE CAN FORM A NEW, FULLY-FUNCTIONAL ANIMAL COMPLETE WITH A BRAIN AND NERVOUS SYSTEM, EYES, KIDNEYS, GUT, MUSCLE, AND SKIN WITHIN JUST TWO WEEKS. PLANARIAN FLATWORMS ARE AN IDEAL ORGANISM IN WHICH TO STUDY REGENERATION, BUT THIS PHENOMENON IS STILL POORLY UNDERSTOOD. THE RECENT STUDY IS THE FIRST TO SHOW THAT STEM CELLS KEY TO PLANARIAN REGENERATION, CALLED NEOBLASTS, FORM DURING A SPECIFIC STAGE OF EMBRYONIC DEVELOPMENT. NEOBLASTS ARE PRESENT THROUGHOUT THE WORM'S LIFE, AND CAN REPLENISH THEMSELVES AND MAKE EVERY TYPE OF CELL IN THE BODY. THESE FINDINGS, PUBLISHED ONLINE JANUARY 10, 2017, IN ELIFE, COULD GUIDE FUTURE THERAPEUTIC ADVANCES FOR PATIENTS SUFFERING FROM DEGENERATIVE DISEASES OR TRAUMATIC INJURIES. THE WASHBURN LAB UNCOVERED NEW RELATIONSHIPS AND ORGANIZATIONAL PRINCIPLES IN PROTEIN INTERACTION NETWORKS. PROTEINS PLAY IMPORTANT ROLES IN CELLS AND TISSUES. SOME PROTEINS PROVIDE STRUCTURAL INTEGRITY, OTHERS CATALYZE REACTIONS, AND YET OTHERS REGULATE GENE EXPRESSION. PROTEOMICS IS THE STUDY OF THE STRUCTURE, FUNCTION, AND INTERACTION OF ALL THE PROTEINS IN A CELL OR ORGANISM, WHICH CAN NUMBER IN THE HUNDREDS OF THOUSANDS OR MILLIONS OF VARIATIONS. TO BETTER UNDERSTAND PROTEINS IN THEIR DYNAMIC WORLD, THE RESEARCHERS USED AN ADVANCED MATHEMATICAL APPROACH CALLED TOPOLOGICAL DATA ANALYSIS TO STUDY TWO DIFFERENT KINDS OF PROTEINS AND THEIR INTERACTION NETWORKS IN A YEAST MODEL AND HUMAN CELL LINES. THE RESEARCHERS CHANGED PARTS OF</p>

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FORM 990, PART III, LINE 4a	<p>THESE TWO PROTEIN NETWORKS AND THEN DETERMINED HOW THE NETWORKS WERE AFFECTED. GROUPS OF PROTEINS EXHIBITING SIMILAR EFFECTS AND SHARING SIMILAR PROPERTIES WERE IDENTIFIED AS TOPOLOGICAL NETWORK MODULES. ADDITIONALLY, THIS STUDY, PUBLISHED ONLINE MARCH 8, 2017, IN SCIENTIFIC REPORTS, OFFERS AN EXPANDED VIEW OF CASCADING INTERACTIONS ACROSS THE LARGER NETWORK AND IDENTIFY NEW AREAS OF BIOLOGICAL NETWORKS TO EXPLORE. BY UNDERSTANDING PROTEINS, THEIR NEIGHBORHOODS, AND THEIR TRAVELS, RESEARCHERS HOPE TO GAIN INSIGHT INTO A WIDE RANGE OF BIOLOGICAL FUNCTIONS, INCLUDING DRUG RESISTANCE AND THE EFFECT OF CANCER MUTATIONS. THE ZEITLINGER LAB PUBLISHED FINDINGS ON THE DETAILS OF HOW A PARTICULAR MOLECULE MEDIATES THE FLOW OF GENETIC INFORMATION IN THE CELL. GENE EXPRESSION IS THE PROCESS OF TURNING GENES ON OR OFF, AND IT'S ESSENTIAL FOR CREATING SPECIFIC CELLS IN THE BODY. IN THE FIRST STEP OF GENE EXPRESSION CALLED TRANSCRIPTION, THE INFORMATION STORED IN DNA IS COPIED INTO RNA BY A MOLECULAR MACHINE KNOWN AS RNA POLYMERASE. RATHER THAN HURRIEDLY TRANSCRIBING A GENE FROM START TO FINISH, THESE POLYMERASES OFTEN PAUSE AS THEY TRAVEL DOWN THE DOUBLE HELIX, SOME TIMES FOR AS LONG AS AN HOUR AT A TIME. IN A STUDY PUBLISHED ONLINE MAY 15, 2017, IN NATURE GENETICS, RESEARCHERS STUDIED THE EFFECT THIS PAUSING HAD ON THE OVERALL PROCESS OF TRANSCRIPTION. THEY SHOWED THAT WHEN ONE POLYMERASE PAUSES, IT KEEPS OTHER POLYMERASES FROM INITIATING TRANSCRIPTION. THEY BELIEVE THAT THESE PAUSES COULD PROVIDE A MUCH-NEEDED RESPITE IN BETWEEN BURSTS OF TRANSCRIPTION TO MAKE GENE EXPRESSION MORE CONTROLLED AND DELIBERATE. WHEN GENE EXPRESSION IS ALLOWED TO UNFOLD UNCHECKED, PROBLEMS MAY ARISE, SUCH AS THE DEVELOPMENT OF CANCER. THEREFORE, BY UNDERSTANDING THE BASIC MECHANISMS THAT CONTROL GENE EXPRESSION, RESEARCHERS CAN GAIN A GREATER APPRECIATION OF THE UNDERLYING CAUSES OF CANCER AND RELATED DISEASES. THE KRUMLAUF LAB SHOWED THAT CROSS-TALK BETWEEN CERTAIN GENES IS KEY TO MAINTAINING A BALANCE OF CELL STATES. IN THIS STUDY, RESEARCHERS EXAMINED THE RELATIONSHIP BETWEEN TWO REGULATOR GENES - NANOG AND HOX. NANOG REGULATES A CELL STATE CALLED PLURIPOTENCY, WHERE A CELL HAS THE ABILITY TO SELF-RENEW AND THE POTENTIAL TO CHANGE INTO ANY OF A NUMBER OF CELL TYPES. HOX SPARKS CELLS TO DIFFERENTIATE, OR BECOME A MORE SPECIALIZED CELL TYPE SUCH AS A HEART, BRAIN, OR SKIN CELL. THESE GENES "TALK" TO EACH OTHER TO KEEP CELLS BALANCED BETWEEN PLURIPOTENCY AND DIFFERENTIATION. THE RESEARCHERS PROVIDED EVIDENCE OF THIS DIRECT CROSS-REGULATORY FEEDBACK, OR CROSS-TALK, USING MOUSE AND ZEBRAFISH MODEL SYSTEMS. THE STUDY WAS PUBLISHED ONLINE JUNE 5, 2017, IN THE PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES. NANOG AND HOX GENES WORK TOGETHER TO DIRECT THE CELL BY HELPING IT AVOID WRONG TURNS AND STAY ON COURSE. THE WORK PROVIDES IMPORTANT INSIGHT INTO THE BASIC PROCESSES OF TISSUE FORMATION, AND HOLDS RELEVANCE FOR THE FIELD OF REGENERATIVE MEDICINE AND THE DEVELOPMENT OF THERAPEUTIC A</p>



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FORM 990, PART III, LINE 4a	<p>PPROACHES FOR CERTAIN CANCERS THE ZANDERS LAB PUBLISHED FINDINGS THAT REVEALED HOW A "SEL FISH" GENE USES AN UNPRECEDENTED GENETIC SURVIVAL STRATEGY THE RESEARCHERS IDENTIFIED A G ENE FOUND IN FISSION YEAST THAT ACTS AS BOTH A POISON AND AN ANTIDOTE TO ENSURE ITS TRANSM ISSION INTO THE NEXT GENERATION, AND TO ELIMINATE ITS COMPETITION IN THEIR REPORT, PUBLIS HED ONLINE JUNE 20, 2017, IN ELIFE, THE RESEARCHERS DETAILED HOW THE PARASITIC SELFISH GEN E WTF4 DESTROYS DEVELOPING GAMETES (ANALOGOUS TO SPERM) THAT DON'T POSSESS IT THE GENE PO ISONS DEVELOPING GAMETES, BUT KEEPS THE ANTIDOTE FOR ITSELF GAMETES THAT INHERIT THE SELF ISH GENES ARE PROTECTED BECAUSE THEY HAVE THE ANTIDOTE THE GAMETES THAT DON'T INHERIT THE SELFISH GENES ARE DESTROYED THESE RESULTS EXPAND CURRENT KNOWLEDGE ON THE NATURE OF SELF ISH GENES AND HOW THEY CAN CONTRIBUTE TO INFERTILITY THE FINDING MAY ALSO GUIDE FUTURE DI SCOVERIES OF SIMILAR SELFISH GENES IN OTHER ORGANISMS, SUCH AS CROPS OR HUMANS THE GERTON LAB PUBLISHED A STUDY THAT SHOWED HOW CANCER CELLS MAY STREAMLINE THEIR GENOMES IN ORDER TO PROLIFERATE MORE EASILY RIBOSOMAL DNA IS A GENETIC SEQUENCE THAT CODES FOR STRUCTURAL COMPONENTS OF RIBOSOMES, THE TINY FACTORIES RESPONSIBLE FOR PRODUCING THE BODY'S ESSENTIAL PROTEINS BECAUSE THESE SEQUENCES ARE REPETITIVE, THEY ARE NOTORIOUSLY DIFFICULT TO STUDY THE STUDY, CONDUCTED IN BOTH HUMAN AND MOUSE CELLS, WAS PUBLISHED ONLINE JUNE 22, 2017, IN PLOS GENETICS THE RESEARCHERS DESCRIBE HOW RIBOSOMAL DNA COPY NUMBER CAN CHANGE IN CAN CER THEY FOUND THAT CANCER CELLS CAN LOSE COPIES OF RIBOSOMAL DNA WHICH MAY ALLOW THEM TO PROLIFERATE FASTER IN THE PROCESS, THE CELLS MAY BECOME MORE SENSITIVE TO DNA DAMAGE, A WEAKNESS THAT COULD POTENTIALLY BE EXPLOITED BY DNA-DAMAGING CHEMOTHERAPEUTICS THE HAWLEY LAB BROUGHT TOGETHER TWO MICROSCOPY TECHNIQUES TO REVEAL THE THREE-DIMENSIONAL STRUCTURE OF A CRITICAL PROTEIN COMPLEX MEIOSIS IS THE PROCESS OF CELL DIVISION THAT GIVES RISE TO EGGS AND SPERM, AND ERRORS IN MEIOSIS ARE THE LEADING CAUSE OF MISCARRIAGE IN HUMANS IN A STUDY PUBLISHED ONLINE JULY 31, 2017, IN THE PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIEN CES, THE RESEARCHERS SOLVED THE STRUCTURE OF A PROTEIN COMPLEX THAT IS ESSENTIAL TO MEIOSI S BY MERGING TWO ADVANCED MICROSCOPY TECHNIQUES, THE RESEARCHERS DISCOVERED THAT THIS STR UCTURE, KNOWN AS THE SYNAPTONEMAL COMPLEX, LOOKS LIKE TWO SETS OF RAILROAD TRACKS STACKED ON TOP OF EACH OTHER THE STUDY, CONDUCTED IN A FRUIT FLY MODEL OF MEIOSIS, REPRESENTS A T ECHNICAL LEAP AND PROVIDES A NEW WINDOW ON THE WAY THIS CRITICAL COMPLEX WORKS TO KEEP CEL L DIVISION MOVING SMOOTHLY</p>

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THE KULESA LAB IDENTIFIED A MOLECULAR SIGNATURE OF "TRAILBLAZER" NEURAL	<p>CREST CELLS THAT GIVES INSIGHT INTO DEVELOPMENT AND CANCER COLLECTIVE CELL MIGRATION DESCRIBES THE MOVEMENT OF A GROUP OF CELLS IN A DIRECTED AND COHESIVE MANNER, AND IT PLAYS A CRITICAL ROLE IN EMBRYONIC DEVELOPMENT, WOUND HEALING, CANCER SPREADING, AND THE IMMUNE RESPONSE IN AN ARTICLE PUBLISHED ONLINE DECEMBER 4, 2017, IN ELIFE, THE RESEARCHERS REPORTED THE FIRST COMPREHENSIVE ANALYSIS OF THE MOLECULAR TRANSITIONS AND GENE EXPRESSION SIGNATURES OF SINGLE MIGRATING CELLS FROM THE NEURAL CREST, A CELL POPULATION CRUCIAL TO ORGAN DEVELOPMENT AND THE ANCESTRAL CELL TYPE OF TWO DEADLY FORMS OF HUMAN CANCER THE RESEARCHERS DISCOVERED A SIGNATURE OF 1300 DIFFERENTIALLY EXPRESSED GENES INDICATIVE OF AN INVASIVE SUBSET OF MIGRATING CELLS KNOWN AS "TRAILBLAZERS" THESE GENES APPEAR TO DRIVE MIGRATION AND MAY BE PART OF A BROADER MOLECULAR SIGNATURE IN OTHER BIOLOGICAL PHENOMENA INVOLVING CELL INVASION UNDERSTANDING HOW MOLECULAR DIVERSITY TRANSLATES INTO COMPLEX, COORDINATED CELL BEHAVIORS PROVIDES KNOWLEDGE THAT MAY UNCOVER NEW MOLECULAR TARGETS FOR INHIBITING NEUROBLASTOMA AND MELANOMA DISEASE PROGRESSION COMPREHENSIVE LISTS OF 2017 ORIGINAL RESEARCH PAPERS, REVIEWS, COMMENTARIES, CHAPTERS, AND BOOKS ORIGINAL RESEARCH PAPERS 1 PRONOUNCED STRAIN-SPECIFIC CHEMOSENSORY RECEPTOR GENE EXPRESSION IN THE MOUSE VOMERONASAL ORGAN DUYCK K, DUTELL V, MA L, PAULSON A, YU CR BMC GENOMICS 2017,18 965 DOI 10.1186/S12864-017-4364-4 2 SINGLE-CELL TRANSCRIPTOME ANALYSIS OF AVIAN NEURAL CREST MIGRATION REVEALS SIGNATURES OF INVASION AND MOLECULAR TRANSITIONS MORRISON JA, MCLENNAN R, WOLFE LA, GOGOL MM, MEIER S, MCKINNEY MC, TEDDY JM, HOLMES L, SEMERAD CL, BOX AC, LI H, HALL KE, PERERA AG, KULESA PM ELIFE 2017,6 E28415 DOI 28410.27554/ELIFE 28415 3 RESOLVING IN VIVO GENE EXPRESSION DURING COLLECTIVE CELL MIGRATION USING AN INTEGRATED REAGENT, IMMUNOHISTOCHEMISTRY AND TISSUE CLEARING METHOD MORRISON JA, MCKINNEY MC, KULESA PM MECH DEV 2017,148 100-106 4 STRUCTURAL PLASTICITY OF THE LIVING KINETOCHORE DHATCHINAMOORTHY K, SHIVARAJU M, LANGE JJ, RUBINSTEIN B, UNRUH JR, SLAUGHTER BD, GERTON JL J CELL BIOL 2017,216 3551-3570 5 RETINOIC ACID IS REQUIRED AND FGF, WNT, AND BMP SIGNALING INHIBIT POSTERIOR LATERAL LINE PLACODE INDUCTION IN ZEBRAFISH NIKAIKO M, ACEDO JN, HATTA K, PIOTROWSKI T DEV BIOL 2017,431 215-225 6 MERKEL CELL POLYOMAVIRUS RECRUITS MYCL TO THE EP400 COMPLEX TO PROMOTE ONCOGENESIS CHENG J, PARK DE, BERRIOS C, WHITE EA, ARORA R, YOON R, BRANIGAN T, XIAO T, WESTERLING T, FEDERATION A, ZEID R, STROBER B, SWANSON SK, FLORENS L, BRADNER JE, BROWN M, HOWLEY PM, PADI M, WASHBURN MP, DECAPRIO JA PLOS PATHOG 2017,13 E1006668 DOI 1006610.1001371/JOURNAL.PPAT.1006668 7 AGE-ASSOCIATED DYSREGULATION OF PROTEIN METABOLISM IN THE MAMMALIAN OOCYTE DUNCAN FE, JASTI S, PAULSON A, KELSH JM, FEGLEY B, GERTON JL AGING CELL 2017,16 1381-1393 8 HOXA1 TARGETS SIGNALING PATHWAYS DURING NEURAL DIFFERENTIATION OF ESCS AND MOUSE EMBRYOGEN</p>

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Return Reference	Explanation
<p>THE KULESA LAB IDENTIFIED A MOLECULAR SIGNATURE OF "TRAILBLAZER" NEURAL</p>	<p>ESIS DE KUMAR B, PARKER HJ, PAULSON A, PARRISH ME, ZEITLINGER J, KRUMLAUF R DEV BIOL 20 17,432 151-164 9 DAN (NBL1) PROMOTES COLLECTIVE NEURAL CREST MIGRATION BY RESTRAINING UN CONTROLLED INVASION MCLENNAN R, BAILEY CM, SCHUMACHER LJ, TEDDY JM, MORRISON JA, KASEMEIE R-KULESA JC, WOLFE LA, GOGOL MM, BAKER RE, MAINI PK, KULESA PM J CELL BIOL 2017,216 3339 -3354 10 H19 PROMOTES CHOLESTATIC LIVER FIBROSIS BY PREVENTING ZEB1-MEDIATED INHIBITION OF EPITHELIAL CELL ADHESION MOLECULE SONG Y, LIU C, LIU X, TROTTIER J, BEAUDOIN M, ZHANG L, POPE C, PENG G, BARBIER O, ZHONG X, LI L, WANG L HEPATOLOGY 2017,66 1183-1196 11 MO DULATING WNT SIGNALING RESCUES PALATE MORPHOGENESIS IN PAX9 MUTANT MICE LI C, LAN Y, KRUM LAUF R, JIANG R J DENT RES 2017,96 1273-1281 12 THE WHHERE COACTIVATOR COMPLEX IS REQUIRED FOR RETINOIC ACID-DEPENDENT REGULATION OF EMBRYONIC SYMMETRY VILHAIS-NETO GC, FOURNI ER M, PLASSAT JL, SARDIU ME, SARAF A, GARNIER JM, MARUHASHI M, FLORENS L, WASHBURN MP, POU RQUIE O NAT COMMUN 2017,8 728 DOI 710 1038/S41467-41017-00593-41466 13 IRF6 AND SPRY 4 SIGNALING INTERACT IN PERIDERM DEVELOPMENT KOUSA YA, ROUSHANGAR R, PATEL N, WALTER A, M ARANGONI P, KRUMLAUF R, KLEIN OD, SCHUTTE BC J DENT RES 2017,96 1306-1313 14 HOXA1 AND TALE PROTEINS DISPLAY CROSS-REGULATORY INTERACTIONS AND FORM A COMBINATORIAL BINDING CODE ON HOXA1 TARGETS DE KUMAR B, PARKER HJ, PAULSON A, PARRISH ME, PUSHEL I, SINGH NP, ZHANG Y, SLAUGHTER BD, UNRUH JR, FLORENS L, ZEITLINGER J, KRUMLAUF R GENOME RES 2017,27 1501- 1512 15 HIPPO REPROGRAMS THE TRANSCRIPTIONAL RESPONSE TO RAS SIGNALING PASCUAL J, JACOB S J, SANSORES-GARCIA L, NATARAJAN M, ZEITLINGER J, AERTS S, HALDER G, HAMARATOGLU F DEV C ELL 2017,42 667-680 E4 16 THE MIR-124 FAMILY OF MICRORNAS IS CRITICAL FOR REGENERATION OF THE BRAIN AND VISUAL SYSTEM IN THE PLANARIAN SCHMIDTEA MEDITERRANEA SASIDHARAN V, MARE PALLY S, ELLIOTT SA, BAID S, LAKSHMANAN V, NAYYAR N, BANSAL D, SANCHEZ ALVARADO A, VEMULA PK, PALAKODETI D DEVELOPMENT 2017,144 3211-3223 17 DNA REPLICATION STRESS RESTRICTS RIB OSOMAL DNA COPY NUMBER SALIM D, BRADFORD WD, FREELAND A, CADY G, WANG J, PRUITT SC, GERTO N JL PLOS GENET 2017,13 E1007006 DOI 10 1371/JOURNAL PGEN 1007006 18 NANOSCALE ARCHIT ECTURE OF THE SCHIZOSACCHAROMYCES POMBE CONTRACTILE RING MCDONALD NA, LIND AL, SMITH SE, LI R, GOULD K ELIFE 2017,6 E28865 DOI 28810 27554/ELIFE 28865 19 ENZYMATIC MODULES O F THE SAGA CHROMATIN-MODIFYING COMPLEX PLAY DISTINCT ROLES IN DROSOPHILA GENE EXPRESSION A ND DEVELOPMENT LI X, SEIDEL CW, SZERSZEN LT, LANGE JJ, WORKMAN JL, ABMAYR SM GENES DEV 2017,31 1588-1600 20 ANEUPLOIDY AS A CAUSE OF IMPAIRED CHROMATIN SILENCING AND MATING-TYPE SPECIFICATION IN BUDDING YEAST MULLA WA, SEIDEL CW, ZHU J, TSAI HJ, SMITH SE, SINGH P, BRADFORD WD, MCCROSKEY S, NELLIAT AR, CONKRIGHT J, PEAK A, MALANOWSKI KE, PERERA AG, LI R ELIFE 2017,6 E27991 DOI 27910 27554/ELIFE 27991 21 SUPERRESOLUTION EXPANSION MICROS COPY REVEALS THE THREE-DIMENSI</p>

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<p>THE KULESA LAB IDENTIFIED A MOLECULAR SIGNATURE OF "TRAILBLAZER" NEURAL</p>	<p>ONAL ORGANIZATION OF THE DROSOPHILA SYNAPTONEMAL COMPLEX CAHOON CK, YU Z, WANG Y, GUO F, UNRUH JR, SLAUGHTER BD, HAWLEY RS PROC NATL ACAD SCI U S A 2017,114 E6857-E6866 22 MOL ECULAR MODEL OF FISSION YEAST CENTROSOME ASSEMBLY DETERMINED BY SUPERRESOLUTION IMAGING B ESTUL AJ, YU Z, UNRUH JR, JASPERSEN SL J CELL BIOL 2017,216 2409-2424 23 THE HUMAN CYT OPLASMIC DYNEIN INTERACTOME REVEALS NOVEL ACTIVATORS OF MOTILITY REDWINE WB, DESANTIS ME, HOLLYER I, HTET ZM, TRAN PT, SWANSON SK, FLORENS L, WASHBURN MP, RECK-PETERSON SL ELIFE 2017,6 E28257 DOI 28210 27554/ELIFE 28257 24 MULTIPLE MODES OF LRP4 FUNCTION IN MODUL ATION OF WNT/BETA-CATENIN SIGNALING DURING TOOTH DEVELOPMENT AHN Y, SIMS C, MURRAY MJ, KU HLMANN PK, FUENTES-ANTRAS J, WEATHERBEE SD, KRUMLAUF R DEVELOPMENT 2017,144 2824-2836 2 5 INTESTINAL ENTEROENDOCRINE LINEAGE CELLS POSSESS HOMEOSTATIC AND INJURY-INDUCIBLE STEM CELL ACTIVITY YAN KS, GEVAERT O, ZHENG GXY, ANCHANG B, PROBERT CS, LARKIN KA, DAVIES PS, CHENG ZF, KADDIS JS, HAN A, ROELF K, CALDERON RI, CYNN E, HU X, MANDLEYWALA K, WILHELMY J, GRIMES SM, CORNEY DC, BOUTET SC, TERRY JM, BELGRADER P, ZIRALDO SB, MIKKELSEN TS, WANG F, VON FURSTENBERG RJ, SMITH NR, CHANDRAKESAN P, MAY R, CHRISSY MAS, JAIN R, CARTWRIGHT CA, NILAND JC, HONG YK, CARRINGTON J, BREault DT, EPSTEIN J, HOUCHEW CW, LYNCH JP, MARTIN MG, PLEVITIS SK, CURTIS C, JI HP, LI L, HENNING SJ, WONG MH, KUO CJ CELL STEM CELL 2017,21 78-90 E76 26 MYELOID LEUKEMIA FACTOR ACTS IN A CHAPERONE COMPLEX TO REGULATE TRANSCRIPTI ON FACTOR STABILITY AND GENE DYER JO, DUTTA A, GOGOL M, WEAKE VM, DIALYNAS G, WU X, SEIDE L C, ZHANG Y, FLORENS L, WASHBURN MP, ABMAYR SM, WORKMAN JL J MOL BIOL 2017,429 2093-210 7 27 RIBOSOMAL DNA COPY NUMBER LOSS AND SEQUENCE VARIATION IN CANCER XU B, LI H, PERRY JM, SINGH VP, UNRUH J, YU Z, ZAKARI M, MCDOWELL W, LI L, GERTON JL PLOS GENET 2017,13 E1 006771 DOI 10 1371/JOURNAL PGEN 1006771 28 CONDENSIN II IS ANCHORED BY TFIIIC AND H3K4M E3 IN THE MAMMALIAN GENOME AND SUPPORTS EXPRESSION OF ACTIVE DENSE GENE CLUSTERS KC Y, BD S, GERTON JL SCI ADV 2017,3 E1700191 DOI 1700110 1701126/SCIADV 1700191 29 PTEN COU NTERACTS FBXL2 TO PROMOTE IP3R3- AND CA2+-MEDIATED APOPTOSIS LIMITING TUMOR GROWTH KUCHAY S, GIORGI C, SIMONESCHI D, PAGAN J, MISSIROLI S, SARAF A, FLORENS L, WASHBURN MP, COLLAZO -LORDUY A, CASTILLO-MARTIN M, CORDON-CARDO C, SEBTI SM, PINTON P, PAGANO M NATURE 2017,5 46 554-561</p>

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<p>30 WTF GENES ARE PROLIFIC DUAL POISON-ANTIDOTE MEIOTIC DRIVERS</p>	<p>NUCKOLLS NL, BRAVO NUNEZ MA, EICKBUSH MT, YOUNG JM, LANGE JJ, YU JS, SMITH GR, JASPERSEN S L, MALIK HS, ZANDERS SE ELIFE 2017,6 E26033 DOI 26010 27554/ELIFE 26033 31 DYNAMIC REGULATION OF NANOG AND STEM CELL-SIGNALING PATHWAYS BY HOXA1 DURING EARLY NEURO-ECTODERMAL DIFFERENTIATION OF ES CELLS DE KUMAR B, PARKER HJ, PARRISH ME, LANGE JJ, SLAUGHTER BD, U NRUH JR, PAULSON A, KRUMLAUF R PROC NATL ACAD SCI U S A 2017,114 5838-5845 32 REGULATE D INTRON REMOVAL INTEGRATES MOTIVATIONAL STATE AND EXPERIENCE GILL J, PARK Y, MCGINNIS JP , PEREZ-SANCHEZ C, BLANCHETTE M, SI K CELL 2017,169 836-848 E815 33 FGF SIGNALING REFINES WNT GRADIENTS TO REGULATE PATTERNING OF TASTE PAPILLAE PROCHAZKOVA M, HAKKINEN TJ, PROCHAZKA J, SPOUTIL F, JHEON AH, AHN Y, KRUMLAUF R, JERNVALL J, KLEIN OD DEVELOPMENT 2017 ,144 2212-2221 34 DIFFERENT PHOSPHOISOFORMS OF RNA POLYMERASE II ENGAGE THE RTT103 TERMINATION FACTOR IN A STRUCTURALLY ANALOGOUS MANNER NEMEC CM, YANG F, GILMORE JM, HINTERMAIR C, HO YH, TSENG SC, HEIDEMANN M, ZHANG Y, FLORENS L, GASCH AP, EICK D, WASHBURN MP, VARANI G, ANSARI AZ PROC NATL ACAD SCI U S A 2017,114 E3944-E39 35 PAUSED RNA POLYMERASE II INHIBITS NEW TRANSCRIPTIONAL INITIATION SHAO W, ZEITLINGER J NAT GENET 2017,49 1045-10 51 36 CELL-CYCLE-COUPLED OSCILLATIONS IN APICAL POLARITY AND INTERCELLULAR CONTACT MAINTAIN ORDER IN EMBRYONIC EPITHELIA RAGKOUSI K, MARR K, MCKINNEY S, ELLINGTON L, GIBSON MC CURR BIOL 2017,27 1381-1386 37 O-LINKED N-ACETYLGLUCOSAMINE TRANSFERASE 1 REGULATES GLOBAL HISTONE H4 ACETYLATION VIA STABILIZATION OF THE NONSPECIFIC LETHAL PROTEIN NSL3 WU D, ZHAO L, FENG Z, YU C, DING J, WANG L, WANG F, LIU D, ZHU H, XING F, CONAWAY JW, CONAWAY RC, CAI Y, JIN J J BIOL CHEM 2017,292 10014-10025 38 AUBERGINE CONTROLS GERMLINE STEM CELL SELF-RENEWAL AND PROGENY DIFFERENTIATION VIA DISTINCT MECHANISMS MA X, ZHU X, HAN Y, STORY B, DO T, SONG X, WANG S, ZHANG Y, BLANCHETTE M, GOGOL M, HALL K, PEAK A, ANOJA P, XI ET DEV CELL 2017,41 157-169 E5 39 COCKAYNE SYNDROME B PROTEIN REGULATES RECRUITMENT OF THE ELONGIN A UBIQUITIN LIGASE TO SITES OF DNA DAMAGE WEEMS JC, SLAUGHTER BD, UNRUH JR, BOEING S, HALL SM, MCLAIRD MB, YASUKAWA T, ASO T, SVEJSTRUP JQ, CONAWAY JW, CONAWAY RC J BIOL CHEM 2017,292 6431-6437 40 PHRED-1 IS A DIVERGENT NEUREXIN-1 HOMOLOG THAT ORGANIZES MUSCLE FIBERS AND PATTERNS ORGANS DURING REGENERATION ADLER CE, SANCHEZ ALVARADO A DEV BIOL 2017,427 165-175 41 RECAPITULATING AND CORRECTING MARFAN SYNDROME IN A CELLULAR MODEL RECAPITULATING AND CORRECTING MARFAN SYNDROME IN A CELLULAR MODEL PARK JW, YAN L, STODDARD C, WANG X, YUE Z, CRANDALL L, ROBINSON T, CHANG Y, DENTON K, LI E, JIANG B, ZHANG Z , MARTINS-TAYLOR K, YEE SP, NIE H, GU F, SI W, XIE T, YUE L, XU RH INT J BIOL SCI 2017,13 588-603 42 MULTIPLEXED CELL-BASED SENSORS FOR ASSESSING THE IMPACT OF ENGINEERED SYSTEMS AND METHODS ON CELL HEALTH VARMA S, FENDYUR A, BOX A, VOLDMAN J ANAL CHEM 2017,89 4663-4670 43 THE TDH-GCN5L1-FB</p>

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30 WTF GENES ARE PROLIFIC DUAL POISON-ANTIDOTE MEIOTIC DRIVERS	<p>XO15-KBP AXIS LIMITS MITOCHONDRIAL BIOGENESIS IN MOUSE EMBRYONIC STEM CELLS DONATO V, BON ORA M, SIMONESCHI D, SARTINI D, KUDO Y, SARAF A, FLORENS L, WASHBURN MP, STADTFELD M, PINT ON P, PAGANO M NAT CELL BIOL 2017,19 341-351 44 IDENTIFICATION OF TOPOLOGICAL NETWORK MODULES IN PERTURBED PROTEIN INTERACTION NETWORKS SARDIU ME, GILMORE JM, GROPE B, FLOREN S L, WASHBURN MP SCI REP 2017,7 43845 DOI 10 1038/SREP43845 45 HANDS-ON CLASSROOM AC TIVITIES FOR EXPLORING REGENERATION AND STEM CELL BIOLOGY WITH PLANARIANS ACCORSI A, ROSS E, TU KC, WILLIAMS M, ROBB SM, ELLIOTT SA, SANCHEZ ALVARADO A AM BIOL TEACHER 2017,79 2 08-223 46 CYTOSOLIC PROTEOSTASIS THROUGH IMPORTING OF MISFOLDED PROTEINS INTO MITOCHONDR IA RUAN L, ZHOU C, JIN E, KUCHARAVY A, ZHANG Y, WEN Z, FLORENS L, LI R NATURE 2017,543 443-446 47 MEDIATOR STRUCTURE AND REARRANGEMENTS REQUIRED FOR HOLOENZYME FORMATION TSAI KL, YU X, GOPALAN S, CHAO TC, ZHANG Y, FLORENS L, WASHBURN MP, MURAKAMI K, CONAWAY RC, CO NAWAY JW, ASTURIAS FJ NATURE 2017,544 196-201 48 COMPOSITION AND FUNCTION OF MUTANT SW I/SNF COMPLEXES DUTTA A, SARDIU M, GOGOL M, GILMORE J, ZHANG D, FLORENS L, ABMAYR SM, WAS HBURN MP, WORKMAN JL CELL REP 2017,18 2124-2134 49 TRIO-BASED EXOME SEQUENCING ARRESTS DE NOVO MUTATIONS IN EARLY-ONSET HIGH MYOPIA JIN ZB, WU J, HUANG XF, FENG CY, CAI XB, MA O JY, XIANG L, WU KC, XIAO X, KLOSS BA, LI Z, LIU Z, HUANG S, SHEN M, CHENG FF, CHENG XW, ZHENG ZL, CHEN X, ZHUANG W, ZHANG Q, YOUNG TL, XIE T, LU F, QU J PROC NATL ACAD SCI U S A 2017,114 4219-4224 50 CHROMATIN REMODELER FUN30FFT3 INDUCES NUCLEOSOME DISASSEMBLY TO FACILITATE RNA POLYMERASE II ELONGATION LEE J, SHIK CHOI E, DAVID SEO H, KANG K, GILMORE JM, FLORENS L, WASHBURN MP, CHOE J, WORKMAN JL, LEE D NAT COMMUN 2017,8 14527 DOI 1451 0 11038/NCOMMS14527 51 RDH10 LOSS-OF-FUNCTION AND PERTURBED RETINOID SIGNALING UNDERLIES THE ETIOLOGY OF CHOANAL ATRESIA KUROSAKA H, WANG Q, SANDELL L, YAMASHIRO T, TRAINOR PA HUM MOL GENET 2017,26 1268-1279 52 NOT ALL H3K4 METHYLATIONS ARE CREATED EQUAL MLL2/CO MPASS DEPENDENCY IN PRIMORDIAL GERM CELL SPECIFICATION HU D, GAO X, CAO X, MORGAN MA, MAS G, SMITH ER, VOLK AG, BARTOM ET, CRISPINO JD, DI CROCE L, SHILATIFARD A MOL CELL 2017,6 5 460-475 E466 53 A PROKINETICIN-LIKE PROTEIN RESPONDS TO IMMUNE CHALLENGES IN THE GASTR OPOD PEST POMACEA CANALICULATA ACCORSI A, BENATTI S, ROSS E, NASI M, MALAGOLI D DEV COMP IMMUNOL 2017,72 37-43 54 COMPREHENSIVE SPATIAL ANALYSIS OF THE BORRELIA BURGDORFERI LI POPROTEOME REVEALS A COMPARTMENTALIZATION BIAS TOWARD THE BACTERIAL SURFACE DOWDELL AS, M URPHY MD, AZODI C, SWANSON SK, FLORENS L, CHEN S, ZUCKERT WR J BACTERIOL 2017,199 E00658 -00616 DOI 00610 01128/JB 00658-00616 55 IN TOTO IMAGING OF THE MIGRATING ZEBRAFISH LA TERAL LINE PRIMORDIUM AT SINGLE CELL RESOLUTION NOGARE DD, NIKAIDO M, SOMERS K, HEAD J, P IOTROWSKI T, CHITNIS AB DEV BIOL 2017,422 14-23 56 PROLIFERATION-INDEPENDENT REGULATIO N OF ORGAN SIZE BY FGF/NOTCH S</p>

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30 WTF GENES ARE PROLIFIC DUAL POISON-ANTIDOTE MEIOTIC DRIVERS	<p>IGNALING KOZLOVSKAJA-GUMBRIENE A, YI R, ALEXANDER R, AMAN A, JISKRA R, NAGELBERG D, KNAUT H, MCCLAIN M, PIOTROWSKI T 2017,6 E21049 DOI 21010 27554/ELIFE 21049 57 THERAPEUTIC TARGETING OF MLL DEGRADATION PATHWAYS IN MLL-REARRANGED LEUKEMIA LIANG K, VOLK AG, HAUG JS, MARSHALL SA, WOODFIN AR, BARTOM ET, GILMORE JM, FLORENS L, WASHBURN MP, SULLIVAN KD, E SPINOSA JM, CANNOVA J, ZHANG J, SMITH ER, CRISPINO JD, SHILATIFARD A CELL 2017,168 59-72 E13 58 FOXC2CREERT2 KNOCK-IN MICE MARK STAGE-SPECIFIC FOXC2-EXPRESSING CELLS DURING MOU SE ORGANOGENESIS AMIN MB, MIURA N, UDDIN MK, ISLAM MJ, YOSHIDA N, ISEKI S, KUME T, TRAINO R PA, SAITSU H, AOTO K CONGENIT ANOM (KYOTO) 2017,57 24-31 59 EMBRYONIC ORIGIN OF ADUL T STEM CELLS REQUIRED FOR TISSUE HOMEOSTASIS AND REGENERATION DAVIES EL, LEI K, SEIDEL CW , KROESEN AE, MCKINNEY SA, GUO L, ROBB SM, ROSS EJ, GOTTING K, SANCHEZ ALVARADO A ELIFE 2017,6 E21052 DOI 21010 27554/ELIFE 21052 60 ROLE OF NHP6 AND HMO1 IN SWI/SNF OCCUPANC Y AND NUCLEOSOME LANDSCAPE AT GENE REGULATORY REGIONS HEPP MI, SMOLLE M, GIDI C, AMIGO R, VALENZUELA N, ARRIAGADA A, MAUREIRA A, GOGOL MM, TORREJON M, WORKMAN JL, GUTIERREZ JL BI OCHIM BIOPHYS ACTA 2017,1860 316-326 61 DROSOPHILA POISED ENHANCERS ARE GENERATED DURIN G TISSUE PATTERNING WITH THE HELP OF REPRESSION KOENECKE N, JOHNSTON J, HE Q, MEIER S, ZE ITLINGER J GENOME RES 2017,27 64-74 62 MYO-INOSITOL REDUCES B-CATENIN ACTIVATION IN CO LITIS BRADFORD EM, THOMPSON CA, GORETSKY T, YANG G-Y, RODRIGUEZ LM, LI L, BARRETT TA WOR LD J GASTROENTEROL 2017,23 5115-5126 63 HISTONE H3K4 MONOMETHYLATION CATALYZED BY TRR A ND MAMMALIAN COMPASS-LIKE PROTEINS AT ENHANCERS IS DISPENSABLE FOR DEVELOPMENT AND VIABI LI TY RICKELS R, HERZ H-M, SZE CC, CAO K, MORGAN MA, COLLINGS CK, GAUSE M, TAKAHASHI Y-H, WA NG L, RENDLEMAN EJ, MARSHALL SA, KRUEGER A, BARTOM ET, PIUNTI A, SMITH ER, ABSHIRU NA, KEL LEHER NL, DORSETT D, SHILATIFARD A NAT GENET 2017,49 1647-1653 64 MYOSIN CLUSTERS OF F INITE SIZE DEVELOP CONTRACTILE STRESS IN 1D RANDOM ACTIN ARRAYS RUBINSTEIN BY, MOGILNER A BIOPHYS J 2017,113 937-947 REVIEWS, COMMENTARIES, CHAPTERS, AND BOOKS 1 POLY(A) TAILS LONGER IS NOT ALWAYS BETTER CASTELLANO LA, BAZZINI AA NAT STRUCT MOL BIOL 2017,24 101 0-1011 2 BIG LESSONS FROM LITTLE YEAST BUDDING AND FISSION YEAST CENTROSOME STRUCTURE, DUPLICATION, AND FUNCTION CAVANAUGH AM, JASPERSEN SL ANNU REV GENET 2017,51 361-383 3 SYSTEMS TO STUDY CODON EFFECT ON POST-TRANSCRIPTIONAL REGULATION OF GENE EXPRESSION WU Q , BAZZINI AA METHODS 2017 DOI 10 1016/J YMETH 2017 11 006 4 UNRAVELLING THE BIOLOGY OF CHROMATIN IN HEALTH AND CANCER USING PROTEOMIC APPROACHES EUBANKS CG, DAYEBGADOH G, LI U X, WASHBURN MP EXPERT REV PROTEOMICS 2017,14 905-915 5 HIERARCHY AND PLASTICITY IN T HE INTESTINAL STEM CELL COMPARTMENT YOUSEFI M, LI L, LENGNER CJ TRENDS CELL BIOL 2017,2 7 753-764 6 EPITHELIAL INTEGRITY AND CELL DIVISION CONCERTED CELL CYCLE CONTROL RAGKOU SI K, GIBSON MC CELL CYCLE 2</p>

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<p>7 LIFTING THE VEIL ON REPTILE EMBRYOLOGY THE VEILED CHAMELEON</p>	<p>(CHAMAELEO CALYPTRATUS) AS A MODEL SYSTEM TO STUDY REPTILIAN DEVELOPMENT DIAZ RE, JR , BE RTOCCHINI F, TRAINOR PA METHODS MOL BIOL 2017,1650 269-284 8 SEGMENTAL ARITHMETIC SUM MING UP THE HOX GENE REGULATORY NETWORK FOR HINDBRAIN DEVELOPMENT IN CHORDATES PARKER HJ, KRUMLAUF R WILEY INTERDISCIP REV DEV BIOL 2017, 6 E286 9 THE STATUS OF THE HUMAN EMBR YO IN VARIOUS RELIGIONS NEAVES W DEVELOPMENT 2017,144 2541-2543 10 NON-MODEL ORGANISM S RUSSELL JJ, THERIOT JA, SOOD P, MARSHALL WF, LANDWEBER LF, FRITZ-LAYLIN L, POLKA JK, OL IFERENKO S, GERBICH T, GLADFELTER A, UMEN J, BEZANILLA M, LANCASTER MA, HE S, GIBSON MC, G OLDSTEIN B, TANAKA EM, HU CK, BRUNET A BMC BIOLOGY 2017,15 55 11 THE GENOMIC REVOLUTIO N AND ITS IMPLICATIONS FOR MEDICAL PRACTICE NEAVES W THE PHAROS 2017 21-27 12 LIVE IM AGING OF MEIOSIS I IN LATE-STAGE DROSOPHILA MELANOGASTER OOCYTES HUGHES SE, HAWLEY RS ME THODS MOL BIOL 2017,1471 255-264 13 WHEN LIN41 COMES TO A FORK IN THE ROAD, IT TAKES BO TH PATHS TRANSLATIONAL REPRESSION OR MRNA DECAY, DEPENDING ON THE TARGET SITE POSITION H AND JM, BAZZINI AA MOL CELL 2017,65 375-377 14 USING FLUORESCENT REPORTERS IN CONJUNCT ION WITH CYTOMETRY AND STATISTICS TO ASSESS NUCLEAR ACCUMULATION OF RIBOSOMAL PROTEINS KI M DH, BOX AC, LI H, GERTON JL METHODS MOL BIOL 2017,1515 217-226 15 CAVEFISH AND THE B ASIS FOR EYE LOSS KRISHNAN J, ROHNER N PHILOS TRANS R SOC LOND B BIOL SCI 2017,372 2015 0487 DOI 20150410 20151098/RSTB 20152015 20150487 16 IN VITRO ASSEMBLY OF NUCLEOSOMES FOR BINDING/REMODELING ASSAYS DUTTA A, WORKMAN JL METHODS MOL BIOL 2017,1528 1-17 17 MEIOTIC RECOMBINATION TAKING THE PATH LESS TRAVELED MILLER DE, HAWLEY RS CURR BIOL 201 7,27 R26-R28 18 REGENERATION AND REWIRING OF RODENT OLFACTORY SENSORY NEURONS YU CR, WU Y EXP NEUROL 2017,287 395-408 19 REGULATION OF HEMATOPOIETIC STEM CELL DYNAMICS BY MO LECULAR NICHE SIGNALING VENKATRAMAN A, ZHAO M, PERRY J, HE XC, LI L CHAPTER IN BIOLOGY AND ENGINEERING OF STEM CELL NICHES ACADEMIC PRESS 2017,51-61 20 NEW INSIGHTS AND CHAN GING PARADIGMS IN THE REGULATION OF VITAMIN A METABOLISM IN DEVELOPMENT SHANNON SR, MOISE AR, TRAINOR PA WILEY INTERDISCIPLINARY REVIEWS DEVELOPMENTAL BIOLOGY 2017,6 E264 21 THE CONSEQUENCES OF CHROMOSOME SEGREGATION ERRORS IN MITOSIS AND MEIOSIS POTAPOVA T, GORB SKY GJ BIOLOGY 2017,6 12 22 RARE SYNDROMES OF THE HEAD AND FACE MANDIBULOFACIAL AND A CROFACIAL DYSOSTOSES TERRAZAS K , DIXON J, TRAINOR PA, DIXON MJ WILEY INTERDISCIPLINARY REVIEWS DEVELOPMENTAL BIOLOGY 2017,6 E263 COMPETITIVE RESEARCH GRANT FUNDING &amp; RESEARCH AWARDS &amp; DISTINCTIONS THE ABILITY OF SIMR SCIENTISTS TO RECEIVE COMPETITIVELY AWARDED RES EARCH FUNDING ATTESTS TO THE HIGH LEVEL OF RESEARCH PRODUCTIVITY PRESENT AT SIMR DURING 2 017, SIMR SCIENTISTS WORKED WITH THE SUPPORT OF 25 GRANTS AND FELLOWSHIPS FROM THE NATIONA L INSTITUTES OF HEALTH, TWO GRANTS FROM THE MARCH OF DIMES, ONE GRANT FROM ALEX'S LEMONADE STAND FOUNDATION, ONE FELLOWS</p>



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<p>7 LIFTING THE VEIL ON REPTILE EMBRYOLOGY THE VEILED CHAMELEON</p>	<p>HIP FROM THE AMERICAN SOCIETY OF HEMATOLOGY, ONE GRANT FROM THE COMPANY OF BIOLOGISTS, ONE FELLOWSHIP FROM THE AMERICAN ASSOCIATION OF ANATOMISTS, ONE FELLOWSHIP FROM THE SOCIETY OF DEVELOPMENTAL BIOLOGY, ONE GRANT FROM THE GREATER KANSAS CITY COMMUNITY FOUNDATION, TWO GRANTS FROM THE HEARING HEALTH FOUNDATION, ONE FELLOWSHIP FROM THE JANE COFFIN CHILDS MEMORIAL FUND, TWO AWARDS FROM THE UNIVERSITY OF KANSAS ENDOWMENT ASSOCIATION, ONE GRANT FROM THE UNIVERSITY OF KANSAS ALZHEIMER'S DISEASE CENTER, ONE GRANT FROM THE UNIVERSITY OF KANSAS CANCER CENTER, AND TWO INVESTIGATOR AWARDS FROM THE HOWARD HUGHES MEDICAL INSTITUTE - SUPPORT FROM NEW AND CONTINUING AWARDS TO THE SIMR TOTALED MORE THAN \$4.5 MILLION IN 2017 TO SUPPLEMENT INCOME FROM ITS ENDOWMENTS. TESTIFYING TO THE HIGH LEVEL OF ACHIEVEMENT TAKING PLACE AT THE SIMR ARE THE AWARDS AND HONORS SIMR MEMBERS RECEIVED IN 2017 - ALEJANDRO SN. CHEZ ALVARADO, PH.D., WAS ELECTED TO THE LATIN AMERICAN ACADEMY OF SCIENCES - RANDAL HALFMANN, PH.D., WAS AWARDED A BASIL O'CONNOR STARTER SCHOLAR RESEARCH AWARD FROM THE MARCH OF DIMES FOUNDATION - TATJANA PIOTROWSKI, PH.D., WAS AWARDED A FIVE-YEAR GRANT FROM THE NATIONAL INSTITUTE ON DEAFNESS AND OTHER COMMUNICATION DISORDERS OF THE NATIONAL INSTITUTES OF HEALTH - TING XIE, PH.D., WAS AWARDED A THREE-YEAR GRANT FROM THE NATIONAL EYE INSTITUTE OF THE NATIONAL INSTITUTES OF HEALTH - PAUL KULESA, PH.D., WAS AWARDED A TWO-YEAR GRANT FROM THE EUNICE KENNEDY SHRIVER NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT OF THE NATIONAL INSTITUTES OF HEALTH - SUE JASPERSEN, PH.D., WAS AWARDED A FOUR-YEAR GRANT FROM THE NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES OF THE NATIONAL INSTITUTES OF HEALTH - RANDAL HALFMANN, PH.D., WAS AWARDED A GRANT THROUGH THE UNIVERSITY OF KANSAS ALZHEIMER'S DISEASE CENTER AND THE LONDON CENTER ON AGING - CHUANKAI ZHOU, PH.D., WON A FIVE-YEAR NIH DIRECTOR'S EARLY INDEPENDENCE AWARD - MARK ADAMS, PH.D., WAS AWARDED AN F32 NATIONAL RESEARCH SERVICE AWARD POSTDOCTORAL FELLOWSHIP FROM THE NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES OF THE NATIONAL INSTITUTES OF HEALTH - BLAIR BENHAM-PYLE, PH.D., WAS AWARDED A THREE-YEAR FELLOWSHIP GRANT FROM THE JANE COFFIN CHILDS MEMORIAL FUND FOR MEDICAL RESEARCH - ALICE ACCORSI, PH.D., RECEIVED A FELLOWSHIP GRANT FROM THE AMERICAN ASSOCIATION OF ANATOMISTS - ROBERT PEUSS, PH.D., WAS AWARDED A GERMAN FELLOWSHIP GRANT FROM THE DEUTSCHE FORSCHUNGSGEMEINSCHAFT - BLAKE EBNER WAS AWARDED AN F30 NATIONAL RESEARCH SERVICE AWARD PREDOCTORAL FELLOWSHIP FROM THE NATIONAL INSTITUTES OF HEALTH INDEPENDENT RESEARCH PROGRAM LEADERS LABORATORIES INDIVIDUAL SCIENTISTS AT THE SIMR SPECIALIZE IN THE STUDY OF ONE OR MORE PARTICULAR GENES, EACH OF WHICH MAY CAUSE OR HAVE INFLUENCE IN VARIOUS KINDS OF DISEASE. A COMPREHENSIVE LIST OF RESEARCH LEADERS FOLLOWS - ROBERT KRUMLAUF, PH.D., SCIENTIFIC DIRECTOR AND INVESTIGATOR, JOINED THE SIMR IN 2000 FROM ENGLAND'S NATIONAL INSTITUTE FOR MEDICAL RESEARCH, THE RIDGEWAY, MILL H</p>

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<p>7 LIFTING THE VEIL ON REPTILE EMBRYOLOGY THE VEILED CHAMELEON</p>	<p>ILL, LONDON, WHERE HE WAS HEAD OF THE DIVISION OF DEVELOPMENTAL NEUROBIOLOGY DR KRUMLAUF RECEIVED A PH D 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 - PETER BAUMANN, PH D , INVESTIGATOR AND HOWARD HUGHES MEDICAL INSTITUTE INVESTIGATOR, JOINED SIMR IN 2002 AFTER COMPLETING A HOWARD HUGHES MEDICAL INSTITUTE POSTDOCTORAL FELLOWSHIP IN THE LABORATORY OF DR THOMAS R CECHE AT THE UNIVERSITY OF COLORADO-Boulder DR BAUMANN RECEIVED A PH D IN BIOCHEMISTRY FROM THE IMPERIAL CANCER RESEARCH FUND AND UNIVERSITY COLLEGE, LONDON RESEARCH FOCUS FUNCTIONAL ANALYSIS OF TELOMERES AND THEIR ROLES IN CELLULAR IMMORTALITY AND CANCER - ARIE L BAZZINI, PH D , ASSISTANT INVESTIGATOR, JOINED SIMR IN 2016 FROM THE LAB OF ANTONIO J G IRALDEZ, PH D , IN THE DEPARTMENT OF GENETICS AT YALE UNIVERSITY, WHERE HE COMPLETED A POSTDOCTORAL FELLOWSHIP DR BAZZINI RECEIVED HIS PH D 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 - JOAN CONAWAY , PH D , 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 - RONALD CONAWAY, PH D , 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 PH D IN BIOCHEMISTRY FROM STANFORD UNIVERSITY SCHOOL OF MEDICINE RESEARCH FOCUS ANALYSIS OF THE MOLECULAR MECHANISM AND REGULATION OF GENE TRANSCRIPTION - JENNIFER GERTON, PH D , 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 PH D IN MICROBIOLOGY AND IMMUNOLOGY FROM STANFORD UNIVERSITY RESEARCH FOCUS GENOMIC AND GENETIC ANALYSIS OF CHROMOSOME SEGREGATION AND CHROMOSOME DYNAMICS - MATTHEW GIBSON, PH D , INVESTIGATOR, JOINED SIMR IN 2006 FROM A JANE COFFIN CHILD MEMORIAL FUND POSTDOCTORAL FELLOWSHIP WITH DR NORBERT PERRIMON AT HARVARD MEDICAL SCHOOL DR GIBSON RECEIVED A PH D IN ZOOLOGY FROM THE UNIVERSITY OF WASHINGTON RESEARCH FOCUS GENETIC ANALYSIS OF MECHANISMS CONTROLLING SIGNAL TRANSDUCTION, CELL PROLIFERATION, AND EPITHELIAL MORPHOGENESIS DURING DROSOPHILA DEVELOPMENT</p>

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-RANDAL HALFMANN, PH D , ASSISTANT INVESTIGATOR, JOINED SIMR IN	<p>2015 FROM THE UNIVERSITY OF TEXAS (UT) SOUTHWESTERN MEDICAL CENTER HE RECEIVED A PH D IN BIOLOGY FROM THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY, WHERE HE WAS A NATIONAL SCIENCE F OUNDATION PREDOCTORAL FELLOW AFTER COMPLETING HIS GRADUATE STUDIES, DR HALFMANN OBTAINED AN INDEPENDENT POSITION AT UT SOUTHWESTERN MEDICAL CENTER WHERE HE WAS A SARA AND FRANK M CKNIGHT FELLOW AND RECEIVED A DIRECTOR'S EARLY INDEPENDENCE AWARD FROM THE NATIONAL INSTITUTES OF HEALTH RESEARCH FOCUS CELLULAR AND EVOLUTIONARY IMPLICATIONS OF PROTEIN SELF-ASS EMBLY USING GENETIC, BIOCHEMICAL, AND CELL-BIOLOGICAL APPROACHES -R SCOTT HAWLEY, PH D , INVESTIGATOR, 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 P H D 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 DURIN G MEIOSIS USING DROSOPHILA AS AN EXPERIMENTAL SYSTEM - SUE JASPERSEN, PH D , ASSOCIATE IN VESTIGATOR, 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 HOL DS A PH D IN BIOCHEMISTRY FROM THE UNIVERSITY OF CALIFORNIA-SAN FRANCISCO RESEARCH FOCUS INNER NUCLEAR MEMBRANE PROTEIN LOCALIZATION AND ROLE IN CHROMOSOME POSITIONING AND SEGRE GATION - LINHENG LI, PH D , INVESTIGATOR, JOINED SIMR IN 2000 FROM THE UNIVERSITY OF WASH INGTON MEDICAL CENTER WHERE HE HELD A FACULTY APPOINTMENT AFTER COMPLETING POSTDOCTORAL TR AINING IN THE LABORATORY DIRECTED BY DR LEROY HOOD DR LI EARNED HIS PH D IN MOLECULAR AND CELLULAR BIOLOGY FROM NEW YORK UNIVERSITY MEDICAL SCHOOL UNDER THE MENTORING OF DR ED WARD ZIFF RESEARCH FOCUS INVESTIGATION OF MOLECULAR AND GENETIC PATHWAYS CONTROLLING ADU LT STEM CELL DEVELOPMENT IN THE HEMATOPOIETIC AND INTESTINAL SYSTEMS USING TRANSGENIC AND GENE TARGETING ANIMAL MODEL APPROACHES - TATJANA PIOTROWSKI, PH D , ASSOCIATE INVESTIGATO R, 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 MI GRATION, CELL TYPE SPECIFICATION AND STEM CELL BIOLOGY IN ZEBRAFISH AS A MODEL SYSTEM - N ICOLAS ROHNER, PH D , ASSISTANT INVESTIGATOR, JOINED SIMR IN 2015 FROM HARVARD MEDICAL SCH OOL, WHERE HE WAS A POSTDOCTORAL FELLOW IN DR CLIFF TABIN'S LABORATORY HE EARNED A PH D IN BIOLOGY FROM THE MAX PLANCK INSTITUTE FOR DEVELOPMENTAL BIOLOGY IN TUBINGEN, GERMANY RESEARCH FOCUS GENETIC MECHAN</p>

**990 Schedule O, Supplemental Information**

Return Reference	Explanation
<p>-RANDAL HALFMANN, PH D , ASSISTANT INVESTIGATOR, JOINED SIMR IN</p>	<p>ISMS AND MUTATIONS THAT UNDERLIE THE ANIMAL KINGDOM'S TREMENDOUS DIVERSITY IN MORPHOLOGY, PHYSIOLOGY, AND BEHAVIOR - ALEJANDRO SNCHEZ ALVARADO, PH D , INVESTIGATOR AND HOWARD HUGH ES MEDICAL INSTITUTE INVESTIGATOR, JOINED SIMR IN 2011 FROM THE UNIVERSITY OF UTAH'S SCHOO L OF MEDICINE, WHERE HE HELD THE H A &amp; EDNA BENNING PROFESSORSHIP OF NEUROBIOLOGY AND ANA TOMY HE RECEIVED A B S IN MOLECULAR BIOLOGY AND CHEMISTRY FROM VANDERBILT UNIVERSITY IN NASHVILLE, TENN , AND A PH D IN PHARMACOLOGY AND CELL BIOPHYSICS FROM THE UNIVERSITY OF C INCINNATI COLLEGE OF MEDICINE IN CINCINNATI, OHIO RESEARCH FOCUS THE MOLECULAR AND CELLU LAR MECHANISMS UNDERPINNING ANIMAL REGENERATION USING THE PLANARIAN SCHMIDTEA MEDITERRANEA AS A MODEL SYSTEM - KAUSIK SI, PH D , INVESTIGATOR, JOINED SIMR IN 2005 FROM THE LABORAT ORY OF DR ERIC KANDEL AT COLUMBIA UNIVERSITY CENTER FOR NEUROBIOLOGY AND BEHAVIOR WHERE H E WAS A JANE COFFIN CHILDS FELLOW AND A FRANCIS GOELET FELLOW IN NEUROSCIENCE DR SI EARN ED A PH D IN MOLECULAR BIOLOGY FROM THE ALBERT EINSTEIN COLLEGE OF MEDICINE RESEARCH FOC US ROLE OF SYNAPTIC PROTEIN SYNTHESIS IN INFORMATION ACQUISITION AND MEMORY STORAGE - PA UL TRAINOR, PH D , INVESTIGATOR, JOINED SIMR IN 2001 FROM A RESEARCH POSITION AT THE NATIO NAL INSTITUTE FOR MEDICAL RESEARCH AT MILL HILL, LONDON, WHERE HE COMPLETED POSTDOCTORAL T RAINING DR TRAINOR HAS A PH D IN DEVELOPMENTAL BIOLOGY FROM CHILDREN'S MEDICAL RESEARCH INSTITUTE AT THE UNIVERSITY OF SYDNEY, AUSTRALIA RESEARCH FOCUS INVESTIGATION OF THE IN TERACTIONS BETWEEN DISTINCT TISSUES IN THE BODY AND THEIR REGULATION DURING NORMAL DEVELOP MENT TO REVEAL PATHWAYS THAT REGULATE NORMAL CRANIAL AND FACIAL DEVELOPMENT - JERRY WORKM AN, PH D , 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 T HE HOWARD HUGHES MEDICAL INSTITUTE DR WORKMAN EARNED A PH D IN CELL AND MOLECULAR BIOLO GY 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 - TING XIE, PH D , INVESTIGATOR, JOINED SIMR IN 2000 AFTER COMPLETING A HOWARD HUGHES MEDICAL INSTITUTE POSTDOCTORAL FELLOWSHIP IN THE LABORATORY OF DR ALLAN C SPRADL ING AT THE CARNEGIE INSTITUTION OF WASHINGTON DR XIE RECEIVED HIS PH D FROM THE JOINT G RADUATE PROGRAM IN MOLECULAR BIOLOGY AND BIOCHEMISTRY OF RUTGERS UNIVERSITY AND THE UNIVER SITY OF MEDICINE AND DENTISTRY OF NEW JERSEY RESEARCH FOCUS GENETIC AND MOLECULAR ANALYS IS OF STEM CELLS AND GERM CELL DEVELOPMENT IN DROSOPHILA AND MOUSE - C RON YU, PH D , IN VESTIGATOR, JOINED SIMR IN 2005 FROM THE LABORATORY OF DR RICHARD AXEL AT COLUMBIA UNIVER SITY CENTER FOR NEUROBIOLOGY AND BEHAVIOR WHERE HE HELD A NATIONAL INSTITUTES OF HEALTH ME NTORED RESEARCH SCIENTIST AWARD FROM THE NATIONAL INSTITUTE OF MENTAL HEALTH DR YU EARNE D HIS PH D IN MOLECULAR, CELL</p>

# 990 Schedule O, Supplemental Information

Return Reference	Explanation
<p>-RANDAL HALFMANN, PH D , ASSISTANT INVESTIGATOR, JOINED SIMR IN</p>	<p>ULAR, AND BIOPHYSICAL STUDIES AT COLUMBIA UNIVERSITY RESEARCH FOCUS HOW OLFACTORY SENSOR Y INFORMATION IS DETECTED, INTEGRATED, AND PROCESSED IN THE BRAIN TO INFLUENCE SPECIFIC IN NATE BEHAVIORS - SARAH ZANDERS, PH D , ASSISTANT INVESTIGATOR, JOINED SIMR IN 2016 AFTER COMPLETION OF HER POSTDOCTORAL TRAINING IN BASIC SCIENCES AT THE FRED HUTCHINSON CANCER RE SEARCH CENTER (FHCRC) WITH SUPPORT FROM A PATHWAY TO INDEPENDENCE AWARD FROM THE NATIONAL INSTITUTES OF HEALTH FHCRC FACULTY MEMBERS HARMIT S MALIK, PH D , AND GERRY SMITH, PH D , ADVISED HER RESEARCH ON FERTILITY, GENOME EVOLUTION, AND THE ORIGIN OF NEW SPECIES DR ZANDERS RECEIVED HER PH D DEGREE IN GENETICS AND DEVELOPMENT FROM CORNELL UNIVERSITY RES EARCH FOCUS THE EFFECTS OF GENETIC CONFLICTS CAUSED BY SELFISH GENES THAT ARE EMBEDDED IN EUKARYOTIC GENOMES - JULIA ZEITLINGER, PH D , ASSOCIATE INVESTIGATOR, JOINED SIMR IN 200 7 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 POSTDOCTO RAL FELLOWSHIP FROM THE HUMAN FRONTIER SCIENCE PROGRAM DR ZEITLINGER EARNED A PH D IN M OLECULAR BIOLOGY FROM THE EUROPEAN MOLECULAR BIOLOGY LABORATORY IN HEIDELBERG, GERMANY RE SEARCH FOCUS ANALYSIS OF THE GENE REGULATORY NETWORKS UNDERLYING CELLULAR DIFFERENTIATION TECHNOLOGY CENTERS - PAUL KULESA, PH D , DIRECTOR OF IMAGING, JOINED SIMR IN 2002 AFTER COMPLETING A BURROUGHS WELLCOME FUND POSTDOCTORAL FELLOWSHIP IN THE LABORATORY OF DR SCOT T E FRASER AT THE CALIFORNIA INSTITUTE OF TECHNOLOGY DR KULESA RECEIVED A PH D IN APPL IED MATHEMATICS UNDER DR J D MURRAY AT THE UNIVERSITY OF WASHINGTON RESEARCH FOCUS CEL L MIGRATION IN DEVELOPMENT AND CANCER - MICHAEL WASHBURN, PH D , DIRECTOR OF PROTEOMICS, JOINED SIMR IN 2003 FROM THE TORREY MESA RESEARCH INSTITUTE IN SAN DIEGO WHERE HE WAS A SE NIOR STAFF SCIENTIST IN PROTEOMICS HE EARNED A PH D IN BIOCHEMISTRY AND ENVIRONMENTAL TO XICOLOGY FROM MICHIGAN STATE UNIVERSITY BEFORE COMPLETING A POSTDOCTORAL FELLOWSHIP WITH P ROFESSOR 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.  
▶ Information about Schedule R (Form 990) and its instructions is at [www.irs.gov/form990](http://www.irs.gov/form990).

OMB No 1545-0047

2017

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-TYPE I	SIMR	Yes	
(2)STOWERS RESOURCE MANAGEMENTINC 1000 EAST 50TH STREET  KANSAS CITY, MO 64110 41-2186719	SUPPORT ORG	DE	501(C)(3)	12A-TYPE I	SIMR	Yes	
(3)BIOMED VALLEY CORPORATION 1000 EAST 50TH STREET  KANSAS CITY, MO 64110 74-3238244	SUPPORT ORG	DE	501(C)(3)	12A-TYPE 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 Yes

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 ("SPI") IS AN ADVOCATE FOR A POLITICAL, ECONOMIC, AND SOCIAL ENVIRONMENT THAT ADVANCES AND PROTECTS BIOMEDICAL RESEARCH AND CURES

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

Return Reference	Explanation
PART V, LINE 2 (1)	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 SECTION 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 (2)	SIMR MADE A CONTRIBUTION TO THE GRADUATE SCHOOL OF SIMR

Return Reference	Explanation
PART V, LINE 2 (3)	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)	SIMR ENTERED INTO A LEASE EFFECTIVE JANUARY 1, 2009 WITH STOWERS REAL ESTATE HOLDING CORPORATION ("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 SIMR'S LEASE PAYMENTS TO SREHC IN 2017 TOTALED \$2,230,551

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



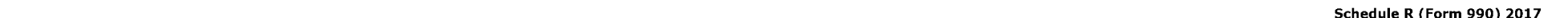
Return Reference	Explanation
PART V, LINE 2 (6)	SIMR REIMBURSED GRADUATE SCHOOL OF SIMR FOR COSTS ASSOCIATED WITH GRADUATE SCHOOL OF SIMR'S PAYROLL AND BENEFIT COSTS FOR GRADUATE SCHOOL OF SIMR STUDENTS IN LABS

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

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

Return Reference	Explanation
PART V, LINE 2 (9)	FOR EACH ACADEMIC YEAR, SIMR PROVIDES AN APPROPRIATION TO GSSIMR BASED ON A PER CAPITA FUNDING FORMULA

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 II - Identification of Related Tax-Exempt Organizations

(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
1000 EAST 50TH STREET KANSAS CITY, MO 64110 20-5916445	SUPPORT ORG	DE	501(C)(3)	12A-TYPE I	SIMR	Yes	
1000 EAST 50TH STREET KANSAS CITY, MO 64110 41-2186719	SUPPORT ORG	DE	501(C)(3)	12A-TYPE I	SIMR	Yes	
1000 EAST 50TH STREET KANSAS CITY, MO 64110 74-3238244	SUPPORT ORG	DE	501(C)(3)	12A-TYPE I	SIMR	Yes	
1000 EAST 50TH STREET KANSAS CITY, MO 64110 26-1472230	TITLE HOLDING	DE	501(C)(2)	N/A	SRM	Yes	
1000 EAST 50TH STREET KANSAS CITY, MO 64110 20-3270502	SEE PART VII	DE	501(C)(4)	N/A	SIMR	Yes	
1000 EAST 50TH STREET KANSAS CITY, MO 64110 46-4588696	EDUCATION	MO	501(C)(3)	2	SIMR	Yes	

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

<b>(a)</b> Name of related organization	<b>(b)</b> Transaction type(a-s)	<b>(c)</b> Amount Involved	<b>(d)</b> Method of determining amount involved
BIOMED VALLEY DISCOVERIES INC	A	14,779	MARKET VALUE
THE GRADUATE SCHOOL OF SIMR	B	350,000	MARKET VALUE
STOWERS RESOURCE MANAGEMENT INC	C	80,000,000	MARKET VALUE
STOWERS REAL ESTATE HOLDING CORP	K	2,230,551	MARKET VALUE
STOWERS RESOURCE MANAGEMENT INC	P	22,963,066	COST REIMB
THE GRADUATE SCHOOL OF SIMR	P	1,643,847	COST REIMB
BIOMED VALLEY DISCOVERIES INC	P	298,752	COST REIMB
BIOMED VALLEY DISCOVERIES INC	Q	851,700	COST REIMB
THE GRADUATE SCHOOL OF SIMR	R	1,050,000	MARKET VALUE
SEE PART VII FOR ADDITIONAL INFORMATION			