

Form **990**
(Rev. January 2020)
Department of the Treasury
Internal Revenue Service

Return of Organization Exempt From Income Tax
Under section 501(c), 527, or 4947(a)(1) of the Internal Revenue Code (except private foundations)

OMB No. 1545-0047

2019

Open to Public Inspection

Do not enter social security numbers on this form as it may be made public.
Go to www.irs.gov/Form990 for instructions and the latest information.

A For the 2019 calendar year, or tax year beginning **APR 1, 2019** and ending **MAR 31, 2020**

B Check if applicable: <input type="checkbox"/> Address change <input type="checkbox"/> Name change <input type="checkbox"/> Initial return <input type="checkbox"/> Final return/terminated <input type="checkbox"/> Amended return <input type="checkbox"/> Application pending	C Name of organization BRIGHTFOCUS FOUNDATION Doing business as		D Employer identification number 23-7337229
	Number and street (or P.O. box if mail is not delivered to street address) Room/suite 22512 GATEWAY CENTER DRIVE		E Telephone number (301) 948-3244
	City or town, state or province, country, and ZIP or foreign postal code CLARKSBURG, MD 20871		G Gross receipts \$ 51,222,832.
	F Name and address of principal officer: STACY PAGOS HALLER SAME AS C ABOVE		H(a) Is this a group return for subordinates? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No H(b) Are all subordinates included? <input type="checkbox"/> Yes <input type="checkbox"/> No If "No," attach a list. (see instructions) H(c) Group exemption number

I Tax-exempt status: 501(c)(3) 501(c) () (insert no.) 4947(a)(1) or 527

J Website: **WWW.BRIGHTFOCUS.ORG**

K Form of organization: Corporation Trust Association Other **L** Year of formation: **1973** **M** State of legal domicile: **DC**

Part I Summary

Activities & Governance	1 Briefly describe the organization's mission or most significant activities: BRIGHTFOCUS FOUNDATION (BRIGHTFOCUS) SEEKS A WORLD FREE FROM DISEASES OF MIND AND SIGHT.
	2 Check this box <input type="checkbox"/> if the organization discontinued its operations or disposed of more than 25% of its net assets.
	3 Number of voting members of the governing body (Part VI, line 1a) 3 14
	4 Number of independent voting members of the governing body (Part VI, line 1b) 4 14
	5 Total number of individuals employed in calendar year 2019 (Part V, line 2a) 5 66
	6 Total number of volunteers (estimate if necessary) 6 60
	7 a Total unrelated business revenue from Part VIII, column (C), line 12 7a 0. b Net unrelated business taxable income from Form 990-T, line 39 7b 0.
Revenue	8 Contributions and grants (Part VIII, line 1h) Prior Year 39,635,190. Current Year 35,740,875.
	9 Program service revenue (Part VIII, line 2g) 0. 0.
	10 Investment income (Part VIII, column (A), lines 3, 4, and 7d) 1,956,174. 840,873.
	11 Other revenue (Part VIII, column (A), lines 5, 6d, 8c, 9c, 10c, and 11e) 693,445. 815,078.
	12 Total revenue - add lines 8 through 11 (must equal Part VIII, column (A), line 12) 42,284,809. 37,396,826.
Expenses	13 Grants and similar amounts paid (Part IX, column (A), lines 1-3) 16,205,073. 17,853,862.
	14 Benefits paid to or for members (Part IX, column (A), line 4) 0. 0.
	15 Salaries, other compensation, employee benefits (Part IX, column (A), lines 5-10) 5,399,694. 5,386,724.
	16a Professional fundraising fees (Part IX, column (A), line 11e) 761,638. 743,582.
	b Total fundraising expenses (Part IX, column (D), line 25) 8,027,189.
	17 Other expenses (Part IX, column (A), lines 11a-11d, 11f-24e) 18,076,925. 18,867,346.
18 Total expenses. Add lines 13-17 (must equal Part IX, column (A), line 25) 40,443,330. 42,851,514.	
19 Revenue less expenses. Subtract line 18 from line 12 1,841,479. -5,454,688.	
Net Assets or Fund Balances	20 Total assets (Part X, line 16) Beginning of Current Year 58,993,683. End of Year 53,987,981.
	21 Total liabilities (Part X, line 26) 25,715,274. 28,594,817.
	22 Net assets or fund balances. Subtract line 21 from line 20 33,278,409. 25,393,164.

Part II Signature Block

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

Sign Here	Signature of officer <i>Stacy Pagos Haller</i>	Date 7/29/20			
	STACY PAGOS HALLER, PRESIDENT/CEO Type or print name and title				
Paid Preparer Use Only	Print/Type preparer's name FRANK H. SMITH	Preparer's signature <i>Frank H. Smith</i>	Date 07/29/20	Check if self-employed <input type="checkbox"/>	PTIN P00639053
	Firm's name MARCUM, LLP	Firm's EIN 11-1986323	Firm's address 1899 L STREET, NW, SUITE 850 WASHINGTON, DC 20036	Phone no. (202) 227-4000	

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

Part III Statement of Program Service Accomplishments

Check if Schedule O contains a response or note to any line in this Part III [X]

1 Briefly describe the organization's mission: BRIGHTFOCUS FUNDS EXCEPTIONAL SCIENTIFIC RESEARCH WORLDWIDE TO DEFEAT ALZHEIMER'S DISEASE, MACULAR DEGENERATION, AND GLAUCOMA AND PROVIDES EXPERT INFORMATION ON THESE HEARTBREAKING DISEASES. PLEASE REFER TO SCHEDULE O FOR A COMPLETE OVERVIEW OF OUR MISSION.

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 [X] 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 [X] 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.

4a (Code:) (Expenses \$ 19,939,783. including grants of \$ 11,210,971.) (Revenue \$) ALZHEIMER'S DISEASE RESEARCH (ADR) - BRIGHTFOCUS' ADR PROGRAM FUNDS RESEARCH FOCUSED ON UNDERSTANDING THE CAUSES OF ALZHEIMER'S DISEASE, ITS EARLY DETECTION, AND TREATMENTS TO HELP SLOW OR STOP ITS PROGRESSION, AND ULTIMATELY TO PREVENT THE DISEASE ALTOGETHER. ADR ANNUALLY AWARDS PEER-REVIEWED GRANTS TO SCIENTISTS FROM INSTITUTIONS WORLDWIDE WHO ARE CONDUCTING BIOMEDICAL AND CLINICAL RESEARCH ON ALZHEIMER'S DISEASE. SINCE INCEPTION, BRIGHTFOCUS HAS CONTRIBUTED MORE THAN \$139 MILLION TO THE CONQUERING OF ALZHEIMER'S DISEASE. DURING THE FISCAL YEAR ENDED MARCH 31, 2020, ADR AWARDED \$9,755,348 IN PEER-REVIEWED GRANT AWARDS TO 42 NEW RESEARCH PROJECTS AND ELEVEN OTHER SCIENTIFIC AWARDS TO MAKE A TOTAL OF \$11,210,971 IN FUNDING.

4b (Code:) (Expenses \$ 7,210,979. including grants of \$ 3,560,818.) (Revenue \$) MACULAR DEGENERATION RESEARCH (MDR) - A PROGRAM OF BRIGHTFOCUS, HAS AWARDED MORE THAN \$33 MILLION TO SCIENTISTS STUDYING THE DISEASE. THE LATEST RESEARCH IS FOCUSED ON NOVEL TREATMENTS FOR THE DISEASE, UNDERSTANDING ITS CAUSES AND PROGRESSION, DRUG THERAPIES, ROLE OF THE GUT MICROBIOME IN DISEASE RISK AND PROGRESSION, GENE EDITING, 3D BIOPRINTING EYE TISSUE, THE ROLE OF THE IMMUNE RESPONSE IN DISEASE RISK, AND NEW SCREENING TECHNIQUES. MDR GRANTS ARE AVAILABLE TO MACULAR DEGENERATION RESEARCHERS WORLDWIDE. MDR PLACES SPECIAL EMPHASIS ON ENCOURAGING APPLICATIONS FROM YOUNG SCIENTISTS AND THOSE WITH CUTTING-EDGE IDEAS. ANNUAL GRANT APPLICATIONS ARE PEER-REVIEWED, AND RECIPIENT SELECTIONS ARE BASED ON SCIENTIFIC MERIT.

4c (Code:) (Expenses \$ 3,978,859. including grants of \$ 3,082,073.) (Revenue \$) NATIONAL GLAUCOMA RESEARCH (NGR) - BRIGHTFOCUS' NGR PROGRAM HAS AWARDED MORE THAN \$38 MILLION WORLDWIDE FOR THE STUDY OF GLAUCOMA. NGR-SUPPORTED RESEARCH HAS BEEN FOCUSED ON THE EYE-BRAIN CONNECTION, THE MECHANISMS FOR PRESSURE BUILDUP IN THE EYE, OPTIC NERVE REGENERATION, DISCOVERING GLAUCOMA RISK GENES FOR AFRICAN AMERICANS, AND DEVELOPING EARLY GLAUCOMA SCREENING AND TARGETED TREATMENTS, AMONGST OTHER INNOVATIVE PURSUITS.

NGR GRANTS ARE AVAILABLE TO GLAUCOMA RESEARCHERS WORLDWIDE. NGR PLACES SPECIAL EMPHASIS ON ENCOURAGING APPLICATIONS FROM YOUNG SCIENTISTS AND THOSE WITH CUTTING-EDGE IDEAS. ANNUAL GRANT APPLICATIONS ARE PEER-REVIEWED, AND RECIPIENT SELECTIONS ARE BASED ON SCIENTIFIC MERIT.

4d Other program services (Describe on Schedule O.) (Expenses \$ including grants of \$) (Revenue \$)

4e Total program service expenses 31,129,621.

SEE SCHEDULE O FOR CONTINUATIONS OF 4A, 4B, & 4C

Part IV Checklist of Required Schedules

Table with 3 columns: Question ID, Yes, No. Rows include questions 1 through 21 regarding organizational requirements and financial reporting.

Part IV Checklist of Required Schedules (continued)

Table with 3 columns: Question, Yes, No. Rows 22-38 covering various organizational requirements.

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

Table with 3 columns: Question, Yes, No. Rows 1a-1c regarding Form 1096, Forms W-2G, and backup withholding rules.

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

Table with columns for question number, question text, and Yes/No response boxes. Includes questions 2a through 16 regarding employee counts, tax returns, unrelated business income, foreign accounts, prohibited transactions, and charitable contributions.

Part VI Governance, Management, and Disclosure For each "Yes" response to lines 2 through 7b below, and for a "No" response to line 8a, 8b, or 10b below, describe the circumstances, processes, or changes on Schedule O. See instructions.

Check if Schedule O contains a response or note to any line in this Part VI [X]

Section A. Governing Body and Management

Table with 3 columns: Question, Yes, No. Rows include: 1a Enter the number of voting members... 14; 1b Enter the number of voting members included on line 1a... 14; 2 Did any officer, director, trustee, or key employee have a family relationship... X; 3 Did the organization delegate control over management duties... X; 4 Did the organization make any significant changes to its governing documents... X; 5 Did the organization become aware during the year of a significant diversion of the organization's assets... X; 6 Did the organization have members or stockholders... X; 7a 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... X; 7b Are any governance decisions of the organization reserved to (or subject to approval by) members, stockholders, or persons other than the governing body... X; 8 Did the organization contemporaneously document the meetings held or written actions undertaken during the year by the following: a The governing body? X; b Each committee with authority to act on behalf of the governing body? X; 9 Is there any officer, director, trustee, or key employee listed in Part VII, Section A, who cannot be reached at the organization's mailing address? If "Yes," provide the names and addresses on Schedule O... X

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

Table with 3 columns: Question, Yes, No. Rows include: 10a Did the organization have local chapters, branches, or affiliates? X; 10b 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?; 11a Has the organization provided a complete copy of this Form 990 to all members of its governing body before filing the form? X; 11b Describe in Schedule O the process, if any, used by the organization to review this Form 990.; 12a Did the organization have a written conflict of interest policy? If "No," go to line 13 X; 12b Were officers, directors, or trustees, and key employees required to disclose annually interests that could give rise to conflicts? X; 12c Did the organization regularly and consistently monitor and enforce compliance with the policy? If "Yes," describe in Schedule O how this was done X; 13 Did the organization have a written whistleblower policy? X; 14 Did the organization have a written document retention and destruction policy? X; 15 Did the process for determining compensation of the following persons include a review and approval by independent persons, comparability data, and contemporaneous substantiation of the deliberation and decision? a The organization's CEO, Executive Director, or top management official X; b Other officers or key employees of the organization X; If "Yes" to line 15a or 15b, describe the process in Schedule O (see instructions).; 16a Did the organization invest in, contribute assets to, or participate in a joint venture or similar arrangement with a taxable entity during the year? X; 16b 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?

Section C. Disclosure

- 17 List the states with which a copy of this Form 990 is required to be filed AK, AL, AR, CA, CT, FL, GA, HI, IL, KS, KY, ME
18 Section 6104 requires an organization to make its Forms 1023 (1024 or 1024-A, if applicable), 990, and 990-T (Section 501(c)(3)s only) available for public inspection. Indicate how you made these available. Check all that apply. [X] Own website [X] Another's website [X] Upon request [] Other (explain on Schedule O)
19 Describe on Schedule O whether (and if so, how) the organization made its governing documents, conflict of interest policy, and financial statements available to the public during the tax year.
20 State the name, address, and telephone number of the person who possesses the organization's books and records DAVID F. MARKS, CPA, CMA - (301) 948-3244 22512 GATEWAY CENTER DRIVE, CLARKSBURG, MD 20871

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, and highest compensated employees who received more than \$100,000 of reportable compensation from the organization and any related organizations.
- List all of the organization's **former directors or trustees** that received, in the capacity as a former director or trustee of the organization, more than \$10,000 of reportable compensation from the organization and any related organizations. See instructions for the order in which to list the persons above.

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

(A) Name and title	(B) Average hours per week (list any hours for related organizations below 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) STACY PAGOS HALLER PRESIDENT/CEO	55.00			X			416,096.	0.	63,402.	
(2) NANCY LYNN SR. VP STRATEGIC PARTNERSHIPS	45.00				X		241,169.	0.	50,733.	
(3) R. BRIAN ELDERTON SR. VP, DEVELOPMENT	45.00				X		232,297.	0.	46,582.	
(4) DAVID F. MARKS, CPA, CMA VP, FINANCE & ADMINISTRATION	45.00				X		163,142.	0.	59,485.	
(5) DIANE BOVENKAMP, PHD VP, SCIENTIFIC AFFAIRS	45.00				X		168,414.	0.	19,191.	
(6) MICHAEL BUCKLEY VP, PUBLIC AFFAIRS	45.00				X		159,632.	0.	17,866.	
(7) JEFFREY HONAKER SR. MANAGER OPERATIONS & BUILDING	40.00					X	102,086.	0.	38,608.	
(8) EDWARD BERGER MANAGER OF ONLINE OPERATIONS	40.00					X	104,558.	0.	28,796.	
(9) KEITH WHITAKER, DIR. OF SCIENT. PROGRAMS, NEUROSCIENCE	40.00					X	101,567.	0.	26,009.	
(10) ALICE KIRKMAN COMMUNICATIONS MANAGER	40.00					X	101,509.	0.	25,354.	
(11) PREETI SUBRAMANIAN, DIR. OF SCIENT. PROGRAMS, VISION SCIENCE	40.00					X	107,815.	0.	3,499.	
(12) SCOTT RODGVILLE, CPA CHAIR	7.00	X		X			0.	0.	0.	
(13) PATRICIA M. STEWART VICE CHAIR	4.00	X		X			0.	0.	0.	
(14) DIANE I. MARCELLO VICE CHAIR - UNTIL 06/2019	3.00	X		X			0.	0.	0.	
(15) NICHOLAS W. RAYMOND TREASURER	20.00	X		X			0.	0.	0.	
(16) JUDITH F. LEE SECRETARY	4.00	X		X			0.	0.	0.	
(17) CECILIA ARRADAZA DIRECTOR	2.00	X					0.	0.	0.	

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

(A) Name and title	(B) Average hours per week (list any hours for related organizations below 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			
(18) MICHAEL H. BARNETT, ESQ. DIRECTOR	2.00	X					0.	0.	0.	
(19) MADDY DYCHTWARD DIRECTOR	1.00	X					0.	0.	0.	
(20) GRACE FRISONE DIRECTOR	3.00	X					0.	0.	0.	
(21) SCOTT KAISER, MD DIRECTOR	3.00	X					0.	0.	0.	
(22) JUNE KINOSHITA DIRECTOR	3.00	X					0.	0.	0.	
(23) HENRY J. POWNALL, PHD DIRECTOR - UNTIL 06/2019	1.00	X					0.	0.	0.	
(24) BRIAN K. REGAN, PHD DIRECTOR	2.00	X					0.	0.	0.	
(25) ELTJO (ED) R. SCHOONVELD DIRECTOR - UNTIL 06/2019	3.00	X					0.	0.	0.	
(26) ERIC SIEMERS, MD DIRECTOR	3.00	X					0.	0.	0.	
1b Subtotal							1,898,285.	0.	379,525.	
c Total from continuation sheets to Part VII, Section A							0.	0.	0.	
d Total (add lines 1b and 1c)							1,898,285.	0.	379,525.	

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 **11**

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

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
RKD GROUP, 35 PARKWOOD DRIVE, SUITE 160, HOPKINTON, MA 01748	PUBLIC AWARENESS CONSUL. & MATERIALS	7,844,059.
BEACONFIRE REDENGINE, 2300 CLARENDON BLVD., SUITE 925, ARLINGTON, VA 22201	ONLINE PUBLIC AWARENESS CONSULTING	515,510.
DATA MANAGEMENT, INC. 160 STONE STREET, STONEVILLE, NC 27048	DATABASE MANAGEMENT	227,843.
GOOGLE, 1600 AMPHITHEATRE PARKWAY, MOUNTAIN VIEW, CA 94043	PUBLIC AWARENESS ADVERTISING	224,405.
GLOBAL TECHNOLOGY SOLUTION, 2977 STEWART LOOP, UNIT B, FORT MEADE, MD 20755	BUILDING & OFFICE SUPPLIES	199,501.

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 **12**

SEE PART VII, SECTION A CONTINUATION SHEETS

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

Table with 6 main columns: (A) Name and title, (B) Average hours per week, (C) Position (Individual trustee or director, Institutional trustee, Officer, Key employee, Highest compensated employee, Former), (D) Reportable compensation from the organization, (E) Reportable compensation from related organizations, (F) Estimated amount of other compensation. Rows include (27) JAN M. STOUFFER, PHD and (28) ETHAN TREESE.

Total to Part VII, Section A, line 1c

Part VIII Statement of Revenue

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

			(A)	(B)	(C)	(D)	
			Total revenue	Related or exempt function revenue	Unrelated business revenue	Revenue excluded from tax under sections 512 - 514	
Contributions, Gifts, Grants and Other Similar Amounts	1 a	Federated campaigns	1a 195,679.				
	b	Membership dues	1b				
	c	Fundraising events	1c 220,360.				
	d	Related organizations	1d				
	e	Government grants (contributions)	1e				
	f	All other contributions, gifts, grants, and similar amounts not included above	1f 35324836.				
	g	Noncash contributions included in lines 1a-1f	1g \$ 114,952.				
	h	Total. Add lines 1a-1f		35740875.			
Program Service Revenue	2 a		Business Code				
	b						
	c						
	d						
	e						
	f	All other program service revenue					
	g	Total. Add lines 2a-2f					
Other Revenue	3	Investment income (including dividends, interest, and other similar amounts)		1,037,783.		1037783.	
	4	Income from investment of tax-exempt bond proceeds					
	5	Royalties		482,896.		482,896.	
	6 a	Gross rents	(i) Real	656,319.			
			(ii) Personal				
			6a	656,319.			
	b	Less: rental expenses	6b 48,447.				
	c	Rental income or (loss)	6c 607,872.				
	d	Net rental income or (loss)		607,872.		607,872.	
	7 a	Gross amount from sales of assets other than inventory	(i) Securities	13268459			
			(ii) Other				
			7a	13268459			
	b	Less: cost or other basis and sales expenses	7b 13465369				
c	Gain or (loss)	7c -196910.					
d	Net gain or (loss)		-196,910.		-196,910.		
8 a	Gross income from fundraising events (not including \$ 220,360. of contributions reported on line 1c). See Part IV, line 18		36,500.				
		8a	36,500.				
		b	Less: direct expenses	8b 312,190.			
c	Net income or (loss) from fundraising events		-275,690.		-275,690.		
9 a	Gross income from gaming activities. See Part IV, line 19						
		9a					
		b	Less: direct expenses	9b			
c	Net income or (loss) from gaming activities						
10 a	Gross sales of inventory, less returns and allowances						
		10a					
		b	Less: cost of goods sold	10b			
c	Net income or (loss) from sales of inventory						
Miscellaneous Revenue	11 a		Business Code				
	b						
	c						
	d	All other revenue					
	e	Total. Add lines 11a-11d					
12	Total revenue. See instructions		37396826.	0.	0.	1655951.	

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

Do not include amounts reported on lines 6b, 7b, 8b, 9b, and 10b of Part VIII.	(A) Total expenses	(B) Program service expenses	(C) Management and general expenses	(D) Fundraising expenses
1 Grants and other assistance to domestic organizations and domestic governments. See Part IV, line 21	16,064,162.	16,064,162.		
2 Grants and other assistance to domestic individuals. See Part IV, line 22				
3 Grants and other assistance to foreign organizations, foreign governments, and foreign individuals. See Part IV, lines 15 and 16	1,789,700.	1,789,700.		
4 Benefits paid to or for members				
5 Compensation of current officers, directors, trustees, and key employees	1,594,024.	991,613.	322,740.	279,671.
6 Compensation not included above to disqualified persons (as defined under section 4958(f)(1)) and persons described in section 4958(c)(3)(B)				
7 Other salaries and wages	2,752,817.	1,516,124.	876,643.	360,050.
8 Pension plan accruals and contributions (include section 401(k) and 403(b) employer contributions)	171,240.	94,311.	54,532.	22,397.
9 Other employee benefits	586,992.	323,288.	186,929.	76,775.
10 Payroll taxes	281,651.	155,120.	89,693.	36,838.
11 Fees for services (nonemployees):				
a Management				
b Legal	223,496.	131,527.	91,969.	
c Accounting	92,807.	58,896.	8,699.	25,212.
d Lobbying				
e Professional fundraising services. See Part IV, line 17	743,582.			743,582.
f Investment management fees	287,562.		287,562.	
g Other. (If line 11g amount exceeds 10% of line 25, column (A) amount, list line 11g expenses on Sch. O.)	1,586,309.	1,447,341.	98,087.	40,881.
12 Advertising and promotion	425,754.	182,588.		243,166.
13 Office expenses	980,585.	523,357.	309,035.	148,193.
14 Information technology	781,486.	531,278.	170,147.	80,061.
15 Royalties				
16 Occupancy	366,790.	215,360.	115,944.	35,486.
17 Travel	275,293.	187,533.	53,938.	33,822.
18 Payments of travel or entertainment expenses for any federal, state, or local public officials				
19 Conferences, conventions, and meetings	413,466.	394,930.	11,392.	7,144.
20 Interest	7,309.	4,292.	2,310.	707.
21 Payments to affiliates				
22 Depreciation, depletion, and amortization	345,725.	201,643.	105,736.	38,346.
23 Insurance	92,098.	33,449.	50,196.	8,453.
24 Other expenses. Itemize expenses not covered above (List miscellaneous expenses on line 24e. If line 24e amount exceeds 10% of line 25, column (A) amount, list line 24e expenses on Schedule O.)				
a PUB. AWARENESS POSTAGE	6,122,375.	2,953,752.	432,230.	2,736,393.
b PUB. AWARENESS PRINTING	3,904,853.	1,907,867.	258,116.	1,738,870.
c PUB. AWARENESS COMP.	1,659,043.	817,315.	94,732.	746,996.
d LIST RENTAL	1,302,395.	604,175.	74,074.	624,146.
e All other expenses				
25 Total functional expenses. Add lines 1 through 24e	42,851,514.	31,129,621.	3,694,704.	8,027,189.
26 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 checked="" type="checkbox"/> if following SOP 98-2 (ASC 958-720)	14,042,267.	6,795,939.	919,718.	6,326,610.

Part X Balance Sheet

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

		(A) Beginning of year		(B) End of year
Assets	1 Cash - non-interest-bearing	4,106,677.	1	2,907,293.
	2 Savings and temporary cash investments	337,121.	2	269,981.
	3 Pledges and grants receivable, net	9,069,022.	3	8,906,997.
	4 Accounts receivable, net		4	
	5 Loans and other receivables from any current or former officer, director, trustee, key employee, creator or founder, substantial contributor, or 35% controlled entity or family member of any of these persons		5	
	6 Loans and other receivables from other disqualified persons (as defined under section 4958(f)(1)), and persons described in section 4958(c)(3)(B)		6	
	7 Notes and loans receivable, net		7	
	8 Inventories for sale or use	17,631.	8	15,836.
	9 Prepaid expenses and deferred charges	173,957.	9	89,282.
	10a Land, buildings, and equipment: cost or other basis. Complete Part VI of Schedule D	10a 12,238,079.		
	b Less: accumulated depreciation	10b 4,641,223.	10c	7,596,856.
	11 Investments - publicly traded securities	37,056,380.	11	33,795,346.
	12 Investments - other securities. See Part IV, line 11		12	
	13 Investments - program-related. See Part IV, line 11		13	
	14 Intangible assets		14	
	15 Other assets. See Part IV, line 11	465,555.	15	406,390.
16 Total assets. Add lines 1 through 15 (must equal line 33)	58,993,683.	16	53,987,981.	
Liabilities	17 Accounts payable and accrued expenses	531,785.	17	635,145.
	18 Grants payable	23,815,645.	18	26,847,392.
	19 Deferred revenue	116,330.	19	39,675.
	20 Tax-exempt bond liabilities		20	
	21 Escrow or custodial account liability. Complete Part IV of Schedule D		21	
	22 Loans and other payables to any current or former officer, director, trustee, key employee, creator or founder, substantial contributor, or 35% controlled entity or family member of any of these persons		22	
	23 Secured mortgages and notes payable to unrelated third parties		23	
	24 Unsecured notes and loans payable to unrelated third parties		24	
	25 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	1,251,514.	25	1,072,605.
	26 Total liabilities. Add lines 17 through 25	25,715,274.	26	28,594,817.
Net Assets or Fund Balances	Organizations that follow FASB ASC 958, check here <input checked="" type="checkbox"/> and complete lines 27, 28, 32, and 33.			
	27 Net assets without donor restrictions	15,150,746.	27	8,878,593.
	28 Net assets with donor restrictions	18,127,663.	28	16,514,571.
	Organizations that do not follow FASB ASC 958, check here <input type="checkbox"/> and complete lines 29 through 33.			
	29 Capital stock or trust principal, or current funds		29	
	30 Paid-in or capital surplus, or land, building, or equipment fund		30	
	31 Retained earnings, endowment, accumulated income, or other funds		31	
	32 Total net assets or fund balances	33,278,409.	32	25,393,164.
	33 Total liabilities and net assets/fund balances	58,993,683.	33	53,987,981.

Part XI Reconciliation of Net Assets

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

1	Total revenue (must equal Part VIII, column (A), line 12)	1	37,396,826.
2	Total expenses (must equal Part IX, column (A), line 25)	2	42,851,514.
3	Revenue less expenses. Subtract line 2 from line 1	3	-5,454,688.
4	Net assets or fund balances at beginning of year (must equal Part X, line 32, column (A))	4	33,278,409.
5	Net unrealized gains (losses) on investments	5	-2,372,913.
6	Donated services and use of facilities	6	
7	Investment expenses	7	
8	Prior period adjustments	8	
9	Other changes in net assets or fund balances (explain on Schedule O)	9	-57,644.
10	Net assets or fund balances at end of year. Combine lines 3 through 9 (must equal Part X, line 32, column (B))	10	25,393,164.

Part XII Financial Statements and Reporting

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

- 1 Accounting method used to prepare the Form 990: Cash Accrual Other _____
If the organization changed its method of accounting from a prior year or checked "Other," explain in Schedule O.
- 2a Were the organization's financial statements compiled or reviewed by an independent accountant?
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:
 Separate basis Consolidated basis Both consolidated and separate basis
- 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:
 Separate basis Consolidated basis Both consolidated and separate basis
- c 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 on Schedule O.
- 3a As a result of a federal award, was the organization required to undergo an audit or audits as set forth in the Single Audit Act and OMB Circular A-133?
- 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 on Schedule O and describe any steps taken to undergo such audits

	Yes	No
2a		X
2b	X	
2c	X	
3a		X
3b		

Form 990 (2019)

SCHEDULE A
(Form 990 or 990-EZ)

Department of the Treasury
Internal Revenue Service

Public Charity Status and Public Support

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

▶ Attach to Form 990 or Form 990-EZ.

▶ Go to www.irs.gov/Form990 for instructions and the latest information.

OMB No. 1545-0047

2019

Open to Public Inspection

Name of the organization: **BRIGHTFOCUS FOUNDATION** Employer identification number: **23-7337229**

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: _____
- 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: _____

(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		
Total						



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

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

Section A. Public Support

Calendar year (or fiscal year beginning in) ►	(a) 2015	(b) 2016	(c) 2017	(d) 2018	(e) 2019	(f) Total
1 Gifts, grants, contributions, and membership fees received. (Do not include any "unusual grants.")	29220730.	30692507.	32362197.	39635190.	35740875.	167651499
2 Tax revenues levied for the organization's benefit and either paid to or expended on its behalf						
3 The value of services or facilities furnished by a governmental unit to the organization without charge						
4 Total. Add lines 1 through 3	29220730.	30692507.	32362197.	39635190.	35740875.	167651499
5 The portion of total contributions by each person (other than a governmental unit or publicly supported organization) included on line 1 that exceeds 2% of the amount shown on line 11, column (f)						
6 Public support. Subtract line 5 from line 4.						167651499

Section B. Total Support

Calendar year (or fiscal year beginning in) ►	(a) 2015	(b) 2016	(c) 2017	(d) 2018	(e) 2019	(f) Total
7 Amounts from line 4	29220730.	30692507.	32362197.	39635190.	35740875.	167651499
8 Gross income from interest, dividends, payments received on securities loans, rents, royalties, and income from similar sources	1578975.	1622675.	1641767.	1925519.	2176998.	8945934.
9 Net income from unrelated business activities, whether or not the business is regularly carried on						
10 Other income. Do not include gain or loss from the sale of capital assets (Explain in Part VI.)						
11 Total support. Add lines 7 through 10						176597433
12 Gross receipts from related activities, etc. (see instructions)					12	133,900.
13 First five years. If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a section 501(c)(3) organization, check this box and stop here						<input type="checkbox"/>

Section C. Computation of Public Support Percentage

14 Public support percentage for 2019 (line 6, column (f) divided by line 11, column (f))	14	94.93 %
15 Public support percentage from 2018 Schedule A, Part II, line 14	15	95.01 %
16a 33 1/3% support test - 2019. 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		<input checked="" type="checkbox"/>
b 33 1/3% support test - 2018. 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		<input type="checkbox"/>
17a 10% -facts-and-circumstances test - 2019. 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		<input type="checkbox"/>
b 10% -facts-and-circumstances test - 2018. 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		<input type="checkbox"/>
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		<input type="checkbox"/>

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

(Complete only if you checked the box on line 10 of Part I or if the organization failed to qualify under Part II. If the organization fails to qualify under the tests listed below, please complete Part II.)

Section A. Public Support

Calendar year (or fiscal year beginning in) ►	(a) 2015	(b) 2016	(c) 2017	(d) 2018	(e) 2019	(f) Total
1 Gifts, grants, contributions, and membership fees received. (Do not include any "unusual grants.")						
2 Gross receipts from admissions, merchandise sold or services performed, or facilities furnished in any activity that is related to the organization's tax-exempt purpose						
3 Gross receipts from activities that are not an unrelated trade or business under section 513						
4 Tax revenues levied for the organization's benefit and either paid to or expended on its behalf						
5 The value of services or facilities furnished by a governmental unit to the organization without charge						
6 Total. Add lines 1 through 5						
7a Amounts included on lines 1, 2, and 3 received from disqualified persons						
b Amounts included on lines 2 and 3 received from other than disqualified persons that exceed the greater of \$5,000 or 1% of the amount on line 13 for the year						
c Add lines 7a and 7b						
8 Public support. (Subtract line 7c from line 6.)						

Section B. Total Support

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

14 First five years. If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a section 501(c)(3) organization, check this box and **stop here**

Section C. Computation of Public Support Percentage

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

Section D. Computation of Investment Income Percentage

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

19a 33 1/3% support tests - 2019. If the organization did not check the box on line 14, and line 15 is more than 33 1/3%, and line 17 is not more than 33 1/3%, check this box and **stop here**. The organization qualifies as a publicly supported organization

b 33 1/3% support tests - 2018. If the organization did not check a box on line 14 or line 19a, and line 16 is more than 33 1/3%, and line 18 is not more than 33 1/3%, check this box and **stop here**. The organization qualifies as a publicly supported organization

20 Private foundation. If the organization did not check a box on line 14, 19a, or 19b, check this box and see instructions

Part IV Supporting Organizations

(Complete only if you checked a box in line 12 on 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
1 Are all of the organization's supported organizations listed by name in the organization's governing documents? <i>If "No," describe in Part VI how the supported organizations are designated. If designated by class or purpose, describe the designation. If historic and continuing relationship, explain.</i>		
2 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 Part VI how the organization determined that the supported organization was described in section 509(a)(1) or (2).</i>		
3a 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 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 Part VI when and how the organization made the determination.</i>		
c 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 Part VI what controls the organization put in place to ensure such use.</i>		
4a 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 Did the organization have ultimate control and discretion in deciding whether to make grants to the foreign supported organization? <i>If "Yes," describe in Part VI how the organization had such control and discretion despite being controlled or supervised by or in connection with its supported organizations.</i>		
c 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 Part VI 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>		
5a 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 Part VI, 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 Type I or Type II only. Was any added or substituted supported organization part of a class already designated in the organization's organizing document?		
c Substitutions only. Was the substitution the result of an event beyond the organization's control?		
6 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 Part VI.</i>		
7 Did the organization provide a grant, loan, compensation, or other similar payment to a substantial contributor (as 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>		
8 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>		
9a 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 Part VI.</i>		
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 Part VI.</i>		
c 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 Part VI.</i>		
10a 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 10b below.</i>		
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>		

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? <i>If "Yes" to a, b, or c, provide detail in Part VI.</i>		

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? <i>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.</i>		
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? <i>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.</i>		

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)? <i>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).</i>		

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? <i>If "No," explain in Part VI how the organization maintained a close and continuous working relationship with the supported organization(s).</i>		
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? <i>If "Yes," describe in Part VI the role the organization's supported organizations played in this regard.</i>		

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.		
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? <i>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.</i>		
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? <i>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.</i>		
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? <i>Provide details in Part VI.</i>		
b Did the organization exercise a substantial degree of direction over the policies, programs, and activities of each of its supported organizations? <i>If "Yes," describe in Part VI the role played by the organization in this regard.</i>		

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.

Section A - Adjusted Net Income		(A) Prior Year	(B) Current Year (optional)
1	Net short-term capital gain	1	
2	Recoveries of prior-year distributions	2	
3	Other gross income (see instructions)	3	
4	Add lines 1 through 3.	4	
5	Depreciation and depletion	5	
6	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)	6	
7	Other expenses (see instructions)	7	
8	Adjusted Net Income (subtract lines 5, 6, and 7 from line 4)	8	

Section B - Minimum Asset Amount		(A) Prior Year	(B) Current Year (optional)
1	Aggregate fair market value of all non-exempt-use assets (see instructions for short tax year or assets held for part of year):		
a	Average monthly value of securities	1a	
b	Average monthly cash balances	1b	
c	Fair market value of other non-exempt-use assets	1c	
d	Total (add lines 1a, 1b, and 1c)	1d	
e	Discount claimed for blockage or other factors (explain in detail in Part VI):		
2	Acquisition indebtedness applicable to non-exempt-use assets	2	
3	Subtract line 2 from line 1d.	3	
4	Cash deemed held for exempt use. Enter 1-1/2% of line 3 (for greater amount, see instructions).	4	
5	Net value of non-exempt-use assets (subtract line 4 from line 3)	5	
6	Multiply line 5 by .035.	6	
7	Recoveries of prior-year distributions	7	
8	Minimum Asset Amount (add line 7 to line 6)	8	

Section C - Distributable Amount			Current Year
1	Adjusted net income for prior year (from Section A, line 8, Column A)	1	
2	Enter 85% of line 1.	2	
3	Minimum asset amount for prior year (from Section B, line 8, Column A)	3	
4	Enter greater of line 2 or line 3.	4	
5	Income tax imposed in prior year	5	
6	Distributable Amount. Subtract line 5 from line 4, unless subject to emergency temporary reduction (see instructions).	6	
7	<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
1 Amounts paid to supported organizations to accomplish exempt purposes	
2 Amounts paid to perform activity that directly furthers exempt purposes of supported organizations, in excess of income from activity	
3 Administrative expenses paid to accomplish exempt purposes of supported organizations	
4 Amounts paid to acquire exempt-use assets	
5 Qualified set-aside amounts (prior IRS approval required)	
6 Other distributions (describe in Part VI). See instructions.	
7 Total annual distributions. Add lines 1 through 6.	
8 Distributions to attentive supported organizations to which the organization is responsive (provide details in Part VI). See instructions.	
9 Distributable amount for 2019 from Section C, line 6	
10 Line 8 amount divided by line 9 amount	

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

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

Multiple horizontal lines for supplemental information.

Schedule B

(Form 990, 990-EZ, or 990-PF)

Department of the Treasury
Internal Revenue Service

Schedule of Contributors

▶ Attach to Form 990, Form 990-EZ, or Form 990-PF.
▶ Go to www.irs.gov/Form990 for the latest information.

OMB No. 1545-0047

2019

Name of the organization

BRIGHTFOCUS FOUNDATION

Employer identification number

23-7337229

Organization type (check one):

Filers of:

Section:

Form 990 or 990-EZ

501(c)(3) (enter number) organization

4947(a)(1) nonexempt charitable trust **not** treated as a private foundation

527 political organization

Form 990-PF

501(c)(3) exempt private foundation

4947(a)(1) nonexempt charitable trust treated as a private foundation

501(c)(3) taxable private foundation

Check if your organization is covered by the **General Rule** or a **Special Rule**.

Note: Only a section 501(c)(7), (8), or (10) organization can check boxes for both the General Rule and a Special Rule. See instructions.

General Rule

For an organization filing Form 990, 990-EZ, or 990-PF that received, during the year, contributions totaling \$5,000 or more (in money or property) from any one contributor. Complete Parts I and II. See instructions for determining a contributor's total contributions.

Special Rules

For an organization described in section 501(c)(3) filing Form 990 or 990-EZ that met the 33 1/3% support test of the regulations under sections 509(a)(1) and 170(b)(1)(A)(vi), that checked Schedule A (Form 990 or 990-EZ), Part II, line 13, 16a, or 16b, and that received from any one contributor, during the year, total contributions of the greater of **(1)** \$5,000; or **(2)** 2% of the amount on (i) Form 990, Part VIII, line 1h; or (ii) Form 990-EZ, line 1. Complete Parts I and II.

For an organization described in section 501(c)(7), (8), or (10) filing Form 990 or 990-EZ that received from any one contributor, during the year, total contributions of more than \$1,000 *exclusively* for religious, charitable, scientific, literary, or educational purposes, or for the prevention of cruelty to children or animals. Complete Parts I, II, and III.

For an organization described in section 501(c)(7), (8), or (10) filing Form 990 or 990-EZ that received from any one contributor, during the year, contributions *exclusively* for religious, charitable, etc., purposes, but no such contributions totaled more than \$1,000. If this box is checked, enter here the total contributions that were received during the year for an *exclusively* religious, charitable, etc., purpose. Don't complete any of the parts unless the **General Rule** applies to this organization because it received *nonexclusively* religious, charitable, etc., contributions totaling \$5,000 or more during the year ▶ \$ _____

Caution: An organization that isn't covered by the General Rule and/or the Special Rules doesn't file Schedule B (Form 990, 990-EZ, or 990-PF), but it **must** answer "No" on Part IV, line 2, of its Form 990; or check the box on line H of its Form 990-EZ or on its Form 990-PF, Part I, line 2, to certify that it doesn't meet the filing requirements of Schedule B (Form 990, 990-EZ, or 990-PF).

Name of organization BRIGHTFOCUS FOUNDATION	Employer identification number 23-7337229
---	---

Part I Contributors (see instructions). Use duplicate copies of Part I if additional space is needed.

(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
1	<hr/> <hr/> <hr/>	\$ <u>800,000.</u>	Person <input checked="" type="checkbox"/> Payroll <input type="checkbox"/> Noncash <input type="checkbox"/> (Complete Part II for noncash contributions.)
	<hr/> <hr/> <hr/>	\$ _____	Person <input type="checkbox"/> Payroll <input type="checkbox"/> Noncash <input type="checkbox"/> (Complete Part II for noncash contributions.)
	<hr/> <hr/> <hr/>	\$ _____	Person <input type="checkbox"/> Payroll <input type="checkbox"/> Noncash <input type="checkbox"/> (Complete Part II for noncash contributions.)
	<hr/> <hr/> <hr/>	\$ _____	Person <input type="checkbox"/> Payroll <input type="checkbox"/> Noncash <input type="checkbox"/> (Complete Part II for noncash contributions.)
	<hr/> <hr/> <hr/>	\$ _____	Person <input type="checkbox"/> Payroll <input type="checkbox"/> Noncash <input type="checkbox"/> (Complete Part II for noncash contributions.)
	<hr/> <hr/> <hr/>	\$ _____	Person <input type="checkbox"/> Payroll <input type="checkbox"/> Noncash <input type="checkbox"/> (Complete Part II for noncash contributions.)
	<hr/> <hr/> <hr/>	\$ _____	Person <input type="checkbox"/> Payroll <input type="checkbox"/> Noncash <input type="checkbox"/> (Complete Part II for noncash contributions.)

Name of organization BRIGHTFOCUS FOUNDATION	Employer identification number 23-7337229
---	---

Part II Noncash Property (see instructions). Use duplicate copies of Part II if additional space is needed.

(a) No. from Part I	(b) Description of noncash property given	(c) FMV (or estimate) (See instructions.)	(d) Date received
		\$ _____	_____
		\$ _____	_____
		\$ _____	_____
		\$ _____	_____
		\$ _____	_____
		\$ _____	_____
		\$ _____	_____

Name of organization BRIGHTFOCUS FOUNDATION	Employer identification number 23-7337229
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Part III Exclusively religious, charitable, etc., contributions to organizations described in section 501(c)(7), (8), or (10) that total more than \$1,000 for the year from any one contributor. Complete columns (a) through (e) and the following line entry. For organizations completing Part III, enter the total of exclusively religious, charitable, etc., contributions of \$1,000 or less for the year. (Enter this info. once.) ▶ \$ _____
Use duplicate copies of Part III if additional space is needed.

(a) No. from Part I	(b) Purpose of gift	(c) Use of gift	(d) Description of how gift is held
(e) Transfer of gift			
Transferee's name, address, and ZIP + 4		Relationship of transferor to transferee	
(e) Transfer of gift			
Transferee's name, address, and ZIP + 4		Relationship of transferor to transferee	
(e) Transfer of gift			
Transferee's name, address, and ZIP + 4		Relationship of transferor to transferee	
(e) Transfer of gift			
Transferee's name, address, and ZIP + 4		Relationship of transferor to transferee	
(e) Transfer of gift			
Transferee's name, address, and ZIP + 4		Relationship of transferor to transferee	

SCHEDULE C
(Form 990 or 990-EZ)

Political Campaign and Lobbying Activities

OMB No. 1545-0047

2019

Open to Public Inspection

Department of the Treasury
Internal Revenue Service

For Organizations Exempt From Income Tax Under section 501(c) and section 527
▶ **Complete if the organization is described below.** ▶ **Attach to Form 990 or Form 990-EZ.**
▶ **Go to www.irs.gov/Form990 for instructions and the latest information.**

If the organization answered "Yes," on Form 990, Part IV, line 3, or Form 990-EZ, Part V, line 46 (Political Campaign Activities), then

- Section 501(c)(3) organizations: Complete Parts I-A and B. Do not complete Part I-C.
- Section 501(c) (other than section 501(c)(3)) organizations: Complete Parts I-A and C below. Do not complete Part I-B.
- Section 527 organizations: Complete Part I-A only.

If the organization answered "Yes," on Form 990, Part IV, line 4, or Form 990-EZ, Part VI, line 47 (Lobbying Activities), then

- Section 501(c)(3) organizations that have filed Form 5768 (election under section 501(h)): Complete Part II-A. Do not complete Part II-B.
- Section 501(c)(3) organizations that have NOT filed Form 5768 (election under section 501(h)): Complete Part II-B. Do not complete Part II-A.

If the organization answered "Yes," on Form 990, Part IV, line 5 (Proxy Tax) (see separate instructions) or Form 990-EZ, Part V, line 35c (Proxy Tax) (see separate instructions), then

- Section 501(c)(4), (5), or (6) organizations: Complete Part III.

Name of organization BRIGHTFOCUS FOUNDATION	Employer identification number 23-7337229
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Part I-A Complete if the organization is exempt under section 501(c) or is a section 527 organization.

- 1 Provide a description of the organization's direct and indirect political campaign activities in Part IV.
- 2 Political campaign activity expenditures ▶ \$ _____
- 3 Volunteer hours for political campaign activities _____

Part I-B Complete if the organization is exempt under section 501(c)(3).

- 1 Enter the amount of any excise tax incurred by the organization under section 4955 ▶ \$ _____
- 2 Enter the amount of any excise tax incurred by organization managers under section 4955 ▶ \$ _____
- 3 If the organization incurred a section 4955 tax, did it file Form 4720 for this year? Yes No
- 4a Was a correction made? Yes No
- b If "Yes," describe in Part IV.

Part I-C Complete if the organization is exempt under section 501(c), except section 501(c)(3).

- 1 Enter the amount directly expended by the filing organization for section 527 exempt function activities ▶ \$ _____
- 2 Enter the amount of the filing organization's funds contributed to other organizations for section 527 exempt function activities ▶ \$ _____
- 3 Total exempt function expenditures. Add lines 1 and 2. Enter here and on Form 1120-POL, line 17b ▶ \$ _____
- 4 Did the filing organization file **Form 1120-POL** for this year? Yes No
- 5 Enter the names, addresses and employer identification number (EIN) of all section 527 political organizations to which the filing organization made payments. For each organization listed, enter the amount paid from the filing organization's funds. Also enter the amount of political contributions received that were promptly and directly delivered to a separate political organization, such as a separate segregated fund or a political action committee (PAC). If additional space is needed, provide information in Part IV.

(a) Name	(b) Address	(c) EIN	(d) Amount paid from filing organization's funds. If none, enter -0-.	(e) Amount of political contributions received and promptly and directly delivered to a separate political organization. If none, enter -0-.

For Paperwork Reduction Act Notice, see the Instructions for Form 990 or 990-EZ. Schedule C (Form 990 or 990-EZ) 2019

Part II-A Complete if the organization is exempt under section 501(c)(3) and filed Form 5768 (election under section 501(h)).

- A** Check if the filing organization belongs to an affiliated group (and list in Part IV each affiliated group member's name, address, EIN, expenses, and share of excess lobbying expenditures).
- B** Check if the filing organization checked box A and "limited control" provisions apply.

Limits on Lobbying Expenditures (The term "expenditures" means amounts paid or incurred.)		(a) Filing organization's totals	(b) Affiliated group totals
1a Total lobbying expenditures to influence public opinion (grassroots lobbying)	.....	
b Total lobbying expenditures to influence a legislative body (direct lobbying)	.....	
c Total lobbying expenditures (add lines 1a and 1b)	.....	
d Other exempt purpose expenditures	.....	41,820,370.	
e Total exempt purpose expenditures (add lines 1c and 1d)	.....	41,820,370.	
f Lobbying nontaxable amount. Enter the amount from the following table in both columns.		1,000,000.	
If the amount on line 1e, column (a) or (b) is:	The lobbying nontaxable amount is:		
Not over \$500,000	20% of the amount on line 1e.		
Over \$500,000 but not over \$1,000,000	\$100,000 plus 15% of the excess over \$500,000.		
Over \$1,000,000 but not over \$1,500,000	\$175,000 plus 10% of the excess over \$1,000,000.		
Over \$1,500,000 but not over \$17,000,000	\$225,000 plus 5% of the excess over \$1,500,000.		
Over \$17,000,000	\$1,000,000.		
g Grassroots nontaxable amount (enter 25% of line 1f)	.....	250,000.	
h Subtract line 1g from line 1a. If zero or less, enter -0-	.....	0.	
i Subtract line 1f from line 1c. If zero or less, enter -0-	.....	0.	
j If there is an amount other than zero on either line 1h or line 1i, did the organization file Form 4720 reporting section 4911 tax for this year?		<input type="checkbox"/> Yes <input type="checkbox"/> No

4-Year Averaging Period Under Section 501(h)
(Some organizations that made a section 501(h) election do not have to complete all of the five columns below. See the separate instructions for lines 2a through 2f.)

Lobbying Expenditures During 4-Year Averaging Period					
Calendar year (or fiscal year beginning in)	(a) 2016	(b) 2017	(c) 2018	(d) 2019	(e) Total
2a Lobbying nontaxable amount	1,000,000.	1,000,000.	1,000,000.	1,000,000.	4,000,000.
b Lobbying ceiling amount (150% of line 2a, column(e))					6,000,000.
c Total lobbying expenditures					
d Grassroots nontaxable amount	250,000.	250,000.	250,000.	250,000.	1,000,000.
e Grassroots ceiling amount (150% of line 2d, column (e))					1,500,000.
f Grassroots lobbying expenditures					

Part II-B Complete if the organization is exempt under section 501(c)(3) and has NOT filed Form 5768 (election under section 501(h)).

	(a)		(b)
	Yes	No	Amount
<i>For each "Yes" response on lines 1a through 1i below, provide in Part IV a detailed description of the lobbying activity.</i>			
1 During the year, did the filing organization attempt to influence foreign, national, state, or local legislation, including any attempt to influence public opinion on a legislative matter or referendum, through the use of:			
a Volunteers?			
b Paid staff or management (include compensation in expenses reported on lines 1c through 1i)? ..			
c Media advertisements?			
d Mailings to members, legislators, or the public?			
e Publications, or published or broadcast statements?			
f Grants to other organizations for lobbying purposes?			
g Direct contact with legislators, their staffs, government officials, or a legislative body?			
h Rallies, demonstrations, seminars, conventions, speeches, lectures, or any similar means?			
i Other activities?			
j Total. Add lines 1c through 1i			
2a Did the activities in line 1 cause the organization to be not described in section 501(c)(3)?			
b If "Yes," enter the amount of any tax incurred under section 4912			
c If "Yes," enter the amount of any tax incurred by organization managers under section 4912			
d If the filing organization incurred a section 4912 tax, did it file Form 4720 for this year?			

Part III-A Complete if the organization is exempt under section 501(c)(4), section 501(c)(5), or section 501(c)(6).

	Yes	No
1 Were substantially all (90% or more) dues received nondeductible by members?	1	
2 Did the organization make only in-house lobbying expenditures of \$2,000 or less?	2	
3 Did the organization agree to carry over lobbying and political campaign activity expenditures from the prior year?	3	

Part III-B Complete if the organization is exempt under section 501(c)(4), section 501(c)(5), or section 501(c)(6) and if either (a) BOTH Part III-A, lines 1 and 2, are answered "No" OR (b) Part III-A, line 3, is answered "Yes."

1 Dues, assessments and similar amounts from members	1	
2 Section 162(e) nondeductible lobbying and political expenditures (do not include amounts of political expenses for which the section 527(f) tax was paid).		
a Current year	2a	
b Carryover from last year	2b	
c Total	2c	
3 Aggregate amount reported in section 6033(e)(1)(A) notices of nondeductible section 162(e) dues	3	
4 If notices were sent and the amount on line 2c exceeds the amount on line 3, what portion of the excess does the organization agree to carryover to the reasonable estimate of nondeductible lobbying and political expenditure next year?	4	
5 Taxable amount of lobbying and political expenditures (see instructions)	5	

Part IV Supplemental Information

Provide the descriptions required for Part I-A, line 1; Part I-B, line 4; Part I-C, line 5; Part II-A (affiliated group list); Part II-A, lines 1 and 2 (see instructions); and Part II-B, line 1. Also, complete this part for any additional information.

SCHEDULE D
(Form 990)

Department of the Treasury
Internal Revenue Service

Supplemental Financial Statements

▶ **Complete if the organization answered "Yes" on Form 990, Part IV, line 6, 7, 8, 9, 10, 11a, 11b, 11c, 11d, 11e, 11f, 12a, or 12b.**
▶ **Attach to Form 990.**

▶ **Go to www.irs.gov/Form990 for instructions and the latest information.**

OMB No. 1545-0047

2019

Open to Public Inspection

Name of the organization **BRIGHTFOCUS FOUNDATION** Employer identification number **23-7337229**

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

	(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

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

1 Purpose(s) of conservation easements held by the organization (check all that apply).
 Preservation of land for public use (for example, recreation or education) Preservation of a historically important land area
 Protection of natural habitat Preservation of a certified historic structure
 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.

	Held at the End of the Tax Year
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 7/25/06, 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?

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

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

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

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

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

1a If the organization elected, as permitted under FASB 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 FASB 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 FASB ASC 958 relating to these items:

a Revenue included on Form 990, Part VIII, line 1

b Assets included in Form 990, Part X

LHA For Paperwork Reduction Act Notice, see the Instructions for Form 990. Schedule D (Form 990) 2019

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

- 3 Using the organization's acquisition, accession, and other records, check any of the following that make 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 program
 - 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:
- | | Amount |
|---------------------------------|--------|
| c Beginning balance | 1c |
| d Additions during the year | 1d |
| e Distributions during the year | 1e |
| f Ending balance | 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 on 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	302,000.	320,000.	90,000.	90,000.	90,000.
b Contributions	14,778.	14,385.	234,806.	4,332.	4,344.
c Net investment earnings, gains, and losses		-18,000.	10,000.		
d Grants or scholarships					
e Other expenditures for facilities and programs	14,778.	14,385.	14,806.	4,332.	4,344.
f Administrative expenses					
g End of year balance	302,000.	302,000.	320,000.	90,000.	90,000.

- 2 Provide the estimated percentage of the current year end balance (line 1g, column (a)) held as:
- a Board designated or quasi-endowment .00 %
 - b Permanent endowment 100.00 %
 - c Term endowment .00 %
- 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:
- | | Yes | No |
|---|-----|----|
| (i) Unrelated organizations | X | |
| (ii) Related organizations | | X |
| b If "Yes" on line 3a(ii), are the related organizations listed as required on Schedule R? <input type="checkbox"/> | 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	2,800,000.	1,147,363.		3,947,363.
b Buildings	1,629,400.	5,145,421.	3,414,336.	3,360,485.
c Leasehold improvements				
d Equipment		1,314,819.	1,042,012.	272,807.
e Other		201,076.	184,875.	16,201.
Total. Add lines 1a through 1e. (Column (d) must equal Form 990, Part X, column (B), line 10c.)				7,596,856.

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. (Col. (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. (Col. (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)	
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
Total. (Column (b) must equal Form 990, Part X, col. (B) line 15.) ▶	

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	
(2) CHARITABLE GIFT ANNUITIES	957,473.
(3) RENTAL DEPOSITS	25,000.
(4) CAPITAL LEASE OBLIGATIONS	90,132.
(5)	
(6)	
(7)	
(8)	
(9)	
Total. (Column (b) must equal Form 990, Part X, col. (B) line 25.) ▶	1,072,605.

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 FASB 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.

1	Total revenue, gains, and other support per audited financial statements		1	51,305,514.
2	Amounts included on line 1 but not on Form 990, Part VIII, line 12:			
	a Net unrealized gains (losses) on investments	2a	-2,372,913.	
	b Donated services and use of facilities	2b	16,266,962.	
	c Recoveries of prior year grants	2c	233,154.	
	d Other (Describe in Part XIII.)	2d	27,268.	
	e Add lines 2a through 2d		2e	14,154,471.
3	Subtract line 2e from line 1		3	37,151,043.
4	Amounts included on Form 990, Part VIII, line 12, but not on line 1:			
	a Investment expenses not included on Form 990, Part VIII, line 7b	4a	287,562.	
	b Other (Describe in Part XIII.)	4b	-41,779.	
	c Add lines 4a and 4b		4c	245,783.
5	Total revenue. Add lines 3 and 4c. (This must equal Form 990, Part I, line 12.)		5	37,396,826.

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.

1	Total expenses and losses per audited financial statements		1	59,190,759.
2	Amounts included on line 1 but not on Form 990, Part IX, line 25:			
	a Donated services and use of facilities	2a	16,266,962.	
	b Prior year adjustments	2b		
	c Other losses	2c		
	d Other (Describe in Part XIII.)	2d	27,268.	
	e Add lines 2a through 2d		2e	16,294,230.
3	Subtract line 2e from line 1		3	42,896,529.
4	Amounts included on Form 990, Part IX, line 25, but not on line 1:			
	a Investment expenses not included on Form 990, Part VIII, line 7b	4a	287,562.	
	b Other (Describe in Part XIII.)	4b	-332,577.	
	c Add lines 4a and 4b		4c	-45,015.
5	Total expenses. Add lines 3 and 4c. (This must equal Form 990, Part I, line 18.)		5	42,851,514.

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.

PART V, LINE 4:

THE EARNINGS ON THIS ENDOWMENT ARE AVAILABLE FOR THE ALZHEIMER'S DISEASE RESEARCH PROGRAM, ARE RECORDED AS TEMPORARILY RESTRICTED INVESTMENT INCOME, AND ARE RELEASED AS SPENT.

PART X, LINE 2:

BRIGHTFOCUS PERFORMED AN EVALUATION OF UNCERTAINTY IN INCOME TAXES FOR THE YEAR ENDED MARCH 31, 2020, AND DETERMINED THAT THERE WERE NO MATTERS THAT WOULD REQUIRE RECOGNITION IN THE CONSOLIDATED FINANCIAL STATEMENTS OR THAT MAY HAVE ANY EFFECT ON ITS TAX-EXEMPT STATUS.

PART XI, LINE 2D - OTHER ADJUSTMENTS:

Part XIII Supplemental Information (continued)

SPECIAL EVENT EXPENSE 27,268.

PART XI, LINE 4B - OTHER ADJUSTMENTS:

DEPRECIATION ON RENTAL PROPERTY -41,779.

PART XII, LINE 2D - OTHER ADJUSTMENTS:

SPECIAL EVENT EXPENSE 27,268.

PART XII, LINE 4B - OTHER ADJUSTMENTS:

DEPRECIATION ON RENTAL PROPERTY -41,779.

CHANGE IN PRESENT VALUE OF GRANTS -290,798.

TOTAL TO SCHEDULE D, PART XII, LINE 4B -332,577.

**SCHEDULE F
(Form 990)**

Department of the Treasury
Internal Revenue Service

Statement of Activities Outside the United States

▶ Complete if the organization answered "Yes" on Form 990, Part IV, line 14b, 15, or 16.

▶ Attach to Form 990.

▶ Go to www.irs.gov/Form990 for instructions and the latest information.

OMB No. 1545-0047

2019

Open to Public
Inspection

Name of the organization

Employer identification number

BRIGHTFOCUS FOUNDATION

23-7337229

Part I **General Information on Activities Outside the United States.** Complete if the organization answered "Yes" on Form 990, Part IV, line 14b.

- 1 For grantmakers.** Does the organization maintain records to substantiate the amount of its grants and other assistance, the grantees' eligibility for the grants or assistance, and the selection criteria used to award the grants or assistance? **Yes** **No**
- 2 For grantmakers.** Describe in Part V the organization's procedures for monitoring the use of its grants and other assistance outside the United States.
- 3 Activities per Region.** (The following Part I, line 3 table can be duplicated if additional space is needed.)

(a) Region	(b) Number of offices in the region	(c) Number of employees, agents, and independent contractors in the region	(d) Activities conducted in the region (by type) (such as, fundraising, program services, investments, grants to recipients located in the region)	(e) If activity listed in (d) is a program service, describe specific type of service(s) in the region	(f) Total expenditures for and investments in the region
EUROPE	0	0	GRANTMAKING		1,214,004.
EAST ASIA AND THE PACIFIC	0	0	GRANTMAKING		378,000.
NORTH AMERICA	0	0	GRANTMAKING		197,696.
3 a Subtotal	0	0			1,789,700.
b Total from continuation sheets to Part I	0	0			0.
c Totals (add lines 3a and 3b)	0	0			1,789,700.

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

Schedule F (Form 990) 2019

Part II Grants and Other Assistance to Organizations or Entities Outside the United States. Complete if the organization answered "Yes" on Form 990, Part IV, line 15, for any recipient who received more than \$5,000. Part II can be duplicated if additional space is needed.

1 (a) Name of organization	(b) IRS code section and EIN (if applicable)	(c) Region	(d) Purpose of grant	(e) Amount of cash grant	(f) Manner of cash disbursement	(g) Amount of noncash assistance	(h) Description of noncash assistance	(i) Method of valuation (book, FMV, appraisal, other)
		EUROPE	ALZHEIMER'S DISEASE RESEARCH BY JINGHUI LUO, PHD, ENTITLED: (A20201759S)	100,000.	WIRE TRANSFER	0.		
		EUROPE	AD RESEARCH BY LUCIA CHAVEZ-GUTIERREZ, PHD, ENTITLED: (A20201828S)	299,823.	WIRE TRANSFER	0.		
		EUROPE	ALZHEIMER'S DISEASE RESEARCH BY THOMAS KARIKARI, PHD, ENTITLED: (A2020812F)	200,000.	WIRE TRANSFER	0.		
		EUROPE	ALZHEIMER'S DISEASE RESEARCH CONFERENCE SUPPORT	94,181.	WIRE TRANSFER	0.		
		NORTH AMERICA	NATIONAL GLAUCOMA RESEARCH BY AMANDA MELIN, PHD, ENTITLED: (G2020047)	197,696.	WIRE TRANSFER	0.		
		EUROPE	NATIONAL GLAUCOMA RESEARCH BY ALBERTA THIADENS, MD, PHD, ENTITLED: (G2020116)	150,000.	WIRE TRANSFER	0.		
		EAST ASIA & PACIFIC	NATIONAL GLAUCOMA RESEARCH BY KATHRYN BURDON, PHD, ENTITLED: (G2020293)	198,000.	WIRE TRANSFER	0.		
		EAST ASIA & PACIFIC	MACULAR DEGENERATION RESEARCH BY WEIYONG SHEN, PHD, ENTITLED: (M2020032)	180,000.	WIRE TRANSFER	0.		

2 Enter total number of recipient organizations listed above that are recognized as charities by the foreign country, recognized as tax-exempt by the IRS, or for which the grantee or counsel has provided a section 501(c)(3) equivalency letter **10**

3 Enter total number of other organizations or entities **0**

See Schedule O for continuation of Grant Purpose, item (d)

Part II Continuation of Grants and Other Assistance to Organizations or Entities Outside the United States. (Schedule F (Form 990), Part II, line 1)								
1 (a) Name of organization	(b) IRS code section and EIN (if applicable)	(c) Region	(d) Purpose of grant	(e) Amount of cash grant	(f) Manner of cash disbursement	(g) Amount of non-cash assistance	(h) Description of non-cash assistance	(i) Method of valuation (book, FMV, appraisal, other)
		EUROPE	MACULAR DEGENERATION RESEARCH BY SABRINA CARRELLA, PHD, ENTITLED: (M2020184)	185,000.	WIRE TRANSFER	0.		
		EUROPE	MD RESEARCH BY CHRISTOPHER HAMMOND, MD, ENTITLED: (M2020277)	185,000.	WIRE TRANSFER	0.		

See Schedule O for continuation of Grant Purpose, item (d)

Part III **Grants and Other Assistance to Individuals Outside the United States.** Complete if the organization answered "Yes" on Form 990, Part IV, line 16.

Part III can be duplicated if additional space is needed.

(a) Type of grant or assistance	(b) Region	(c) Number of recipients	(d) Amount of cash grant	(e) Manner of cash disbursement	(f) Amount of noncash assistance	(g) Description of noncash assistance	(h) Method of valuation (book, FMV, appraisal, other)

Part IV Foreign Forms

- 1 Was the organization a U.S. transferor of property to a foreign corporation during the tax year? *If "Yes," the organization may be required to file Form 926, Return by a U.S. Transferor of Property to a Foreign Corporation (see Instructions for Form 926)* Yes No

- 2 Did the organization have an interest in a foreign trust during the tax year? *If "Yes," the organization may be required to separately file Form 3520, Annual Return To Report Transactions With Foreign Trusts and Receipt of Certain Foreign Gifts, and/or Form 3520-A, Annual Information Return of Foreign Trust With a U.S. Owner (see Instructions for Forms 3520 and 3520-A; don't file with Form 990)* Yes No

- 3 Did the organization have an ownership interest in a foreign corporation during the tax year? *If "Yes," the organization may be required to file Form 5471, Information Return of U.S. Persons With Respect to Certain Foreign Corporations (see Instructions for Form 5471)* Yes No

- 4 Was the organization a direct or indirect shareholder of a passive foreign investment company or a qualified electing fund during the tax year? *If "Yes," the organization may be required to file Form 8621, Information Return by a Shareholder of a Passive Foreign Investment Company or Qualified Electing Fund (see Instructions for Form 8621)* Yes No

- 5 Did the organization have an ownership interest in a foreign partnership during the tax year? *If "Yes," the organization may be required to file Form 8865, Return of U.S. Persons With Respect to Certain Foreign Partnerships (see Instructions for Form 8865)* Yes No

- 6 Did the organization have any operations in or related to any boycotting countries during the tax year? *If "Yes," the organization may be required to separately file Form 5713, International Boycott Report (see Instructions for Form 5713; don't file with Form 990)* Yes No

Schedule F (Form 990) 2019

Part V Supplemental Information

Provide the information required by Part I, line 2 (monitoring of funds); Part I, line 3, column (f) (accounting method; amounts of investments vs. expenditures per region); Part II, line 1 (accounting method); Part III (accounting method); and Part III, column (c) (estimated number of recipients), as applicable. Also complete this part to provide any additional information. See instructions.

PART I, LINE 2:

BRIGHTFOCUS INTERACTS WITH ALL GRANTEES AT LEAST QUARTERLY BY E-MAIL OR AT SCIENTIFIC MEETINGS. IN ADDITION TO THESE INTERACTIONS, EACH GRANT RECIPIENT IS REQUIRED TO SUBMIT SEPARATE DETAILED ANNUAL SCIENTIFIC PROGRESS AND FINANCIAL REPORTS TO BRIGHTFOCUS. THESE ARE RECEIVED BY THE BRIGHTFOCUS SCIENTIFIC AFFAIRS DEPARTMENT, AND REVIEWED BY SCIENTIFIC STAFF WITH BROAD EXPERTISE, INCLUDING MOLECULAR BIOLOGY, CELL BIOLOGY, BIOCHEMISTRY, AND GENETICS. SENIOR STAFF REVIEWS EACH PROGRESS REPORT AND EVALUATES THE PROJECT FOR SUFFICIENT PROGRESS TOWARDS THE SPECIFIC AIMS PROPOSED IN THE ORIGINAL APPLICATION OR ANY BUDGETARY CONCERNS. THIS EFFORT IS SUPPORTED BY ADDITIONAL SCIENTIFIC COUNSEL FROM MEMBERS OF THE BRIGHTFOCUS SCIENTIFIC REVIEW COMMITTEES, WHEN REQUIRED. IN ADDITION TO STATEMENTS OF EXPERIMENTAL PROGRESS, ALL GRANTEES ARE ASKED TO REPORT ANY TECHNICAL PUBLICATIONS, MEDIA REPORTS, OR PATENT APPLICATIONS IN WHICH BRIGHTFOCUS-SPONSORED RESEARCH IS DESCRIBED. IF SIGNIFICANT CONCERNS RELATED TO PROGRESS ON THE AWARDS ARE DISCOVERED, AND NOT RESOLVED AFTER INTERACTION WITH THE AWARD GRANTEE, THE BRIGHTFOCUS STAFF RECOMMENDS APPROPRIATE ACTIONS TO THE CHAIR OF THE BOARD OF DIRECTORS SCIENTIFIC AFFAIRS COMMITTEE. IN ACCORDANCE WITH THE GRANT AGREEMENT TERMS AND CONDITIONS, BRIGHTFOCUS MAY WITHHOLD FUNDING, OR DISCONTINUE AN AWARD, FOR ANY GRANTEE THAT FAILS TO ACHIEVE SUFFICIENT PROGRESS OR SUBMIT REQUIRED REPORTS.

AT THE CONCLUSION OF THE GRANT AWARD PERIOD, EACH GRANTEE MUST COMPLETE AND SUBMIT A FINAL REPORT THAT IS ALSO REVIEWED BY THE BRIGHTFOCUS SENIOR SCIENTIFIC STAFF. EVALUATION OF THE WORK OF EACH GRANTEE IS QUALITATIVELY AND QUANTITATIVELY ASSESSED THROUGH VARIOUS METRICS RELATED TO THE IMPACT

Part V Supplemental Information

Provide the information required by Part I, line 2 (monitoring of funds); Part I, line 3, column (f) (accounting method; amounts of investments vs. expenditures per region); Part II, line 1 (accounting method); Part III (accounting method); and Part III, column (c) (estimated number of recipients), as applicable. Also complete this part to provide any additional information. See instructions.

OF THE GRANT ON ITS TARGETED DISEASE FIELD. SUCH IMPACT METRICS HAVE REVEALED THAT 95% OF BRIGHTFOCUS-SUPPORTED RESEARCH RESULTS IN RESEARCH PUBLICATIONS THAT ADVANCE THE FIELDS SERVED BY BRIGHTFOCUS. THIS IMPACT IS FURTHER SUPPORTED BY ANNUAL CATEGORY NORMALIZED CITATION IMPACT ANALYSIS THAT COMPARES BRIGHTFOCUS-SUPPORTED WORKS TO AN UNBIASED COMPARISON OF IMPACT PERFORMANCE VERSUS THE WORLD AVERAGE. BRIGHTFOCUS-SUPPORTED PUBLICATIONS WERE RECENTLY CITED AT 2 TIMES THE FREQUENCY OF THE WORLD AVERAGE. A FINAL EXAMPLE OF IMPACT ASSESSMENT REVEALED THAT THE SUCCESSES OF BRIGHTFOCUS GRANTEES CONTINUE LONG AFTER THE GRANT EXPIRES. ON AVERAGE, EACH GRANTEE RECEIVES ADDITIONAL GRANTS FOR FOLLOW-ON PROJECTS SPAWNED BY THE BRIGHTFOCUS GRANT, WITH VALUES UP TO 10 TIMES THE LEVEL OF THE INITIAL BRIGHTFOCUS INVESTMENT.

BRIGHTFOCUS SOLICITS FEEDBACK FROM ITS GRANTEES, AND PROVIDES AN ANONYMOUS FORUM FOR COLLECTING SUCH INFORMATION. THROUGH THE BRIGHTFOCUS FOUNDATION WEBSITE AND WITHIN THE SCIENTIFIC PROGRESS REPORTS, THERE ARE DESIGNATED SECTIONS WHERE AWARDEES ARE ASKED TO PROVIDE FEEDBACK TO THE FOUNDATION. THROUGH THIS MECHANISM, THEY ARE GIVEN THE ABILITY TO ANONYMOUSLY PROVIDE FEEDBACK OR COMMUNICATE THEIR CONCERNS TO PROGRAM STAFF OR THE BRIGHTFOCUS' COMPLIANCE OFFICE. ANY SUGGESTIONS, CONCERNS, COMPLAINTS, OR POSITIVE EXPERIENCES CAN BE OUTLINED AND BROUGHT TO THE ATTENTION OF BRIGHTFOCUS IN THIS MANNER, SO THAT BRIGHTFOCUS CAN ADDRESS ANY AREAS NEEDING IMPROVEMENT, REAFFIRM PRAISE-WORTHY POLICIES, OR OTHERWISE ASSESS NEEDS FOR PROGRAMMATIC CHANGE. THE SENIOR LEADERSHIP PRESENTS AND SUMMARIZES THE STATUS AND PROGRESS ON GRANTS TO THE BRIGHTFOCUS BOARD OF DIRECTORS AT EACH OF THEIR QUARTERLY BOARD MEETINGS.

Part V Supplemental Information

Provide the information required by Part I, line 2 (monitoring of funds); Part I, line 3, column (f) (accounting method; amounts of investments vs. expenditures per region); Part II, line 1 (accounting method); Part III (accounting method); and Part III, column (c) (estimated number of recipients), as applicable. Also complete this part to provide any additional information. See instructions.

PART I, LINE 3:

BRIGHTFOCUS REPORTED THE EXPENDITURES BASED ON THE ACCOUNTING METHOD USED IN ITS AUDITED FINANCIAL STATEMENTS WHICH IS ON AN ACCRUAL BASIS.

PART II, LINE 1

BRIGHTFOCUS REPORTED THE EXPENDITURES BASED ON THE ACCOUNTING METHOD USED IN ITS AUDITED FINANCIAL STATEMENTS WHICH IS ON AN ACCRUAL BASIS.

SCHEDULE G
(Form 990 or 990-EZ)

Supplemental Information Regarding Fundraising or Gaming Activities

OMB No. 1545-0047

Complete if the organization answered "Yes" on Form 990, Part IV, line 17, 18, or 19, or if the organization entered more than \$15,000 on Form 990-EZ, line 6a.

2019

Department of the Treasury
Internal Revenue Service

▶ Attach to Form 990 or Form 990-EZ.

Open to Public Inspection

▶ Go to www.irs.gov/Form990 for instructions and the latest information.

Name of the organization

BRIGHTFOCUS FOUNDATION

Employer identification number

23-7337229

Part I

Fundraising Activities. Complete if the organization answered "Yes" on Form 990, Part IV, line 17. Form 990-EZ filers are not required to complete this part.

1 Indicate whether the organization raised funds through any of the following activities. Check all that apply.

- a Mail solicitations
- b Internet and email solicitations
- c Phone solicitations
- d In-person solicitations
- e Solicitation of non-government grants
- f Solicitation of government grants
- g Special fundraising events

2 a Did the organization have a written or oral agreement with any individual (including officers, directors, trustees, or key employees listed in Form 990, Part VII) or entity in connection with professional fundraising services? Yes No

b If "Yes," list the 10 highest paid individuals or entities (fundraisers) pursuant to agreements under which the fundraiser is to be compensated at least \$5,000 by the organization.

(i) Name and address of individual or entity (fundraiser)	(ii) Activity	(iii) Did fundraiser have custody or control of contributions?		(iv) Gross receipts from activity	(v) Amount paid to (or retained by) fundraiser listed in col. (i)	(vi) Amount paid to (or retained by) organization
		Yes	No			
RKD GROUP - 35 PARKWOOD DRIVE, STE. 160, HOPKINTON, BEACONFIRE REDENGINE - 2300 CLARENDON BLVD., STE. 925,	FUNDRAISING AND COMMUNICATIONS CONSULTANT		X	24,518,985.	480,205.	24,038,780.
	FUNDRAISING AND COMMUNICATIONS CONSULTANT		X	1,500,034.	263,377.	1,236,657.
Total				26,019,019.	743,582.	25,275,437.

3 List all states in which the organization is registered or licensed to solicit contributions or has been notified it is exempt from registration or licensing.

AK, AL, AR, AZ, CA, CO, CT, DC, FL, GA, HI, IL, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, NC, ND, NH, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, TN, UT, VA, WA, WI, WV

Part II Fundraising Events. Complete if the organization answered "Yes" on Form 990, Part IV, line 18, or reported more than \$15,000 of fundraising event contributions and gross income on Form 990-EZ, lines 1 and 6b. List events with gross receipts greater than \$5,000.

		(a) Event #1	(b) Event #2	(c) Other events	(d) Total events (add col. (a) through col. (c))
		AN EVENING OF BRIGHTFOC (event type)	(event type)	NONE (total number)	
Revenue	1	Gross receipts	256,860.		256,860.
	2	Less: Contributions	220,360.		220,360.
	3	Gross income (line 1 minus line 2)	36,500.		36,500.
Direct Expenses	4	Cash prizes			
	5	Noncash prizes			
	6	Rent/facility costs	21,863.		21,863.
	7	Food and beverages	97,085.		97,085.
	8	Entertainment	62,485.		62,485.
	9	Other direct expenses	130,757.		130,757.
	10	Direct expense summary. Add lines 4 through 9 in column (d)				312,190.
11	Net income summary. Subtract line 10 from line 3, column (d)				-275,690.

Part III Gaming. Complete if the organization answered "Yes" on Form 990, Part IV, line 19, or reported more than \$15,000 on Form 990-EZ, line 6a.

		(a) Bingo	(b) Pull tabs/instant bingo/progressive bingo	(c) Other gaming	(d) Total gaming (add col. (a) through col. (c))
Revenue	1	Gross revenue			
	2	Cash prizes			
Direct Expenses	3	Noncash prizes			
	4	Rent/facility costs			
	5	Other direct expenses			
6	Volunteer labor	<input type="checkbox"/> Yes _____ % <input type="checkbox"/> No	<input type="checkbox"/> Yes _____ % <input type="checkbox"/> No	<input type="checkbox"/> Yes _____ % <input type="checkbox"/> No	
7	Direct expense summary. Add lines 2 through 5 in column (d)				
8	Net gaming income summary. Subtract line 7 from line 1, column (d)				

9 Enter the state(s) in which the organization conducts gaming activities: _____

a Is the organization licensed to conduct gaming activities in each of these states? Yes No

b If "No," explain: _____

10a Were any of the organization's gaming licenses revoked, suspended, or terminated during the tax year? Yes No

b If "Yes," explain: _____

- 11 Does the organization conduct gaming activities with nonmembers? Yes No
- 12 Is the organization a grantor, beneficiary or trustee of a trust, or a member of a partnership or other entity formed to administer charitable gaming? Yes No
- 13 Indicate the percentage of gaming activity conducted in:

a The organization's facility		13a	%
b An outside facility		13b	%
- 14 Enter the name and address of the person who prepares the organization's gaming/special events books and records:

Name ▶ _____

Address ▶ _____

- 15a Does the organization have a contract with a third party from whom the organization receives gaming revenue? Yes No
- b If "Yes," enter the amount of gaming revenue received by the organization ▶ \$ _____ and the amount of gaming revenue retained by the third party ▶ \$ _____
- c If "Yes," enter name and address of the third party:

Name ▶ _____

Address ▶ _____

16 Gaming manager information:

Name ▶ _____

Gaming manager compensation ▶ \$ _____

Description of services provided ▶ _____

- Director/officer
- Employee
- Independent contractor

17 Mandatory distributions:

- a Is the organization required under state law to make charitable distributions from the gaming proceeds to retain the state gaming license? Yes No
- b Enter the amount of distributions required under state law to be distributed to other exempt organizations or spent in the organization's own exempt activities during the tax year ▶ \$ _____

Part IV Supplemental Information. Provide the explanations required by Part I, line 2b, columns (iii) and (v); and Part III, lines 9, 9b, 10b, 15b, 15c, 16, and 17b, as applicable. Also provide any additional information. See instructions.

SCHEDULE G, PART I, LINE 2B, LIST OF TEN HIGHEST PAID FUNDRAISERS:

(I) NAME OF FUNDRAISER: RKD GROUP

(I) ADDRESS OF FUNDRAISER:

35 PARKWOOD DRIVE, STE. 160, HOPKINTON, MA 01748

(I) NAME OF FUNDRAISER: BEACONFIRE REDENGINE

(I) ADDRESS OF FUNDRAISER:

2300 CLARENDON BLVD., STE. 925, ARLINGTON, VA 22201

Part IV Supplemental Information (continued)

PART I, LINE 2B, COLUMN (V):

IN THE CONTRACT WITH RKD GROUP, THE MANAGEMENT FEES ARE FIXED AMOUNTS PER MONTH FOR IN-SCOPE SERVICES THAT TOTALS \$1,053,600 PER YEAR OF WHICH \$573,395 HAS BEEN ALLOCATED UNDER PART XI, LINE 11(G) TO PROGRAM AND MANAGEMENT AND ARE NOT CONSIDERED TO BE THE PROFESSIONAL FUNDRAISING CONSULTANT FEE.

**SCHEDULE I
(Form 990)**

Department of the Treasury
Internal Revenue Service

**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.

▶ Go to www.irs.gov/Form990 for the latest information.

OMB No. 1545-0047

2019

**Open to Public
Inspection**

Name of the organization **BRIGHTFOCUS FOUNDATION** Employer identification number **23-7337229**

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.

1 (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
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO - 3333 CALIFORNIA STREET, SUITE 315 - SAN FRANCISCO, CA 94143	94-6036493	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY HYUNJUN YANG, PHD, ENTITLED: (A2020039F)
EMORY UNIVERSITY 201 DOWMAN DRIVE ATLANTA, GA 30322	58-0566256	501(C)(3)	300,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY CHADWICK HALES, MD, PHD, ENTITLED: (A20201057S)
THE NATIONAL INSTITUTES OF HEALTH 9000 ROCKVILLE PIKE BETHESDA, MD 20892	52-0858115	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY SARAH HILL, PHD, ENTITLED: (A20201086F)
WASHINGTON UNIVERSITY 660 SOUTH EUCLID AVENUE ST. LOUIS, MO 63110	43-0653611	501(C)(3)	267,071.	0.			ALZHEIMER'S DISEASE RESEARCH BY GANESH BABULAL, PHD, ENTITLED: (A20201142S)
THE UNIVERSITY OF TEXAS AT DALLAS 800 WEST CAMPBELL ROAD RICHARDSON, TX 75080	75-1305566	501(C)(3)	300,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY HENG DU, MD PHD, ENTITLED: (A20201159S)
INDIANA UNIVERSITY 509 E. THIRD STREET BLOOMINGTON, IN 47401	35-6001673	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY JUAN CODOCEDO, PHD, ENTITLED: (A20201166F)

2 Enter total number of section 501(c)(3) and government organizations listed in the line 1 table **49.**

3 Enter total number of other organizations listed in the line 1 table **0.**

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

Schedule I (Form 990) (2019)

See Schedule O for continuation of Grant Purpose, item (h)

Part II Continuation of Grants and Other Assistance to Governments and Organizations in the United States (Schedule I (Form 990), Part II.)

(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 non-cash assistance	(h) Purpose of grant or assistance
MICHIGAN STATE UNIVERSITY 426 AUDITORIUM ROAD EAST LANSING, MI 48824	38-6005984	501(C)(3)	285,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY SCOTT COUNTS, PHD, ENTITLED: (A20201187S)
BRIGHAM YOUNG UNIVERSITY P.O. BOX 21128 PROVO, UT 84602	87-0217280	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY JUSTIN MILLER, PHD, ENTITLED: (A2020118F)
BETH ISRAEL DEACONESS MEDICAL CENTER - 330 BROOKLINE AVENUE - BOSTON, MA 02215	04-2103881	501(C)(3)	285,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY PETER FRIED, PHD, ENTITLED: (A20201288S)
BRIGHAM AND WOMEN'S HOSPITAL 75 FRANCIS STREET BOSTON, MA 02115	04-2312909	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY MICHAEL MILLER, MD, PHD, ENTITLED: (A20201292F)
UNIVERSITY OF PENNSYLVANIA 3451 WALNUT STREET, SUITE 305M PHILADELPHIA, PA 19104	23-1352685	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY SADAF AMIN, PHD, ENTITLED: (A20201312F)
UNIVERSITY OF SOUTHERN CALIFORNIA 1501 SAN PABLO STREET LOS ANGELES, CA 90033	95-1642394	501(C)(3)	300,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY LIRONG YAN, PHD, ENTITLED: (A20201411S)
UNIVERSITY OF KENTUCKY 109 KINKEAD HALL LEXINGTON, KY 40506	61-6033693	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY SIMONE CRIVELLI, PHD, ENTITLED: (A20201464F)
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO - 3333 CALIFORNIA STREET, SUITE 315 - SAN FRANCISCO, CA 94143	94-6036493	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY CLAIRE CLELLAND, PHD, MD, MPHIL, ENTITLED: (A20201490F)
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO - 3333 CALIFORNIA STREET, SUITE 315 - SAN FRANCISCO, CA 94143	94-6036493	501(C)(3)	285,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY SAUL VILLEDA, PHD, ENTITLED: (A20201492S)

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Part II Continuation of Grants and Other Assistance to Governments and Organizations in the United States (Schedule I (Form 990), Part II.)

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MAYO CLINIC JACKSONVILLE 4500 SAN PABLO ROAD JACKSONVILLE, FL 32224	59-3337028	501(C)(3)	300,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY CHIA-CHEN LIU, MD, ENTITLED: (A20201542S)
EMORY UNIVERSITY SCHOOL OF MEDICINE - 201 DOWMAN DRIVE - ATLANTA, GA 30322	58-0566256	501(C)(3)	194,460.	0.			ALZHEIMER'S DISEASE RESEARCH BY LENORA HIGGINBOTHAM, MD, ENTITLED: (A20201577F)
MAYO CLINIC JACKSONVILLE 4500 SAN PABLO ROAD JACKSONVILLE, FL 32224	59-3337028	501(C)(3)	300,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY MARK EBBERT, PHD, ENTITLED: (A2020161S)
UNIVERSITY OF NOTRE DAME 724 GRACE HALL CONTROLLERS OFFICE NOTRE DAME, IN 46556	35-0868188	501(C)(3)	285,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY JOHN KOREN, PHD, ENTITLED: (A20201621S)
UNIVERSITY OF CALIFORNIA, IRVINE 100 THEORY STREET, SUITE 250 IRVINE, CA 92617	95-2226406	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY CHRISTEL CLAES, PHD, ENTITLED: (A20201625F)
THE SALK INSTITUTE FOR BIOLOGICAL STUDIES - 10010 N. TORREY PINES RD - LA JOLLA, CA 92037	95-2160097	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY ISABEL SALAS, PHD, ENTITLED: (A20201645F)
UNIVERSITY OF CONNECTICUT HEALTH CENTER - 263 FARMINGTON AVENUE - FARMINGTON, CT 06030	52-1725543	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY BRATI DAS, PHD, ENTITLED: (A20201729F)
UNIVERSITY OF PENNSYLVANIA 211 COLLEGE HALL PHILADELPHIA, PA 19104	23-1352685	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY HONG XU, PHD, ENTITLED: (A20201731F)
WAKE FOREST UNIVERSITY 1 MEDICAL CENTER BOULEVARD WINSTON-SALEM, NC 27157	22-3849199	501(C)(3)	300,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY SHANNON MACAULEY, PHD, ENTITLED: (A20201775S)

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Part II Continuation of Grants and Other Assistance to Governments and Organizations in the United States (Schedule I (Form 990), Part II.)

(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 non-cash assistance	(h) Purpose of grant or assistance
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL - 4324 TRENTON ROAD - CHAPEL HILL, NC 27517	56-6001393	501(C)(3)	199,041.	0.			ALZHEIMER'S DISEASE RESEARCH BY IVANA QUIROGA, PHD, ENTITLED: (A2020203F)
WASHINGTON UNIVERSITY 660 SOUTH EUCLID AVENUE SAINT LOUIS, MO 63110	43-0653611	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY MAUD GRATUZE, PHD, ENTITLED: (A2020257F)
MAYO CLINIC, JACKSONVILLE 4500 SAN PABLO ROAD JACKSONVILLE, FL 32224	59-3337028	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY SARAH PICKLES, PHD, ENTITLED: (A2020279F)
UNIVERSITY OF MASSACHUSETTS SCHOOL OF MEDICINE - 55 LAKE AVENUE NORTH - WORCESTER, MA 01655	04-3167352	501(C)(3)	285,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY CHRISTELLE ANACLET, MD, PHD, ENTITLED: (A2020321S)
JOAN AND SANFORD I. WEILL MEDICAL COLLEGE OF CORNELL UNIVERSITY - 1300 YORK AVENUE - NEW YORK, NY 10065	13-1623978	501(C)(3)	285,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY MAKOTO ISHII, PHD, ENTITLED: (A2020363S)
WASHINGTON UNIVERSITY 660 SOUTH EUCLID AVENUE ST. LOUIS, MO 63110	43-0653611	501(C)(3)	100,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY CARL FRIEDEN, PHD, ENTITLED: (A2020382S)
UNIVERSITY CALIFORNIA SAN FRANCISCO - 513 PARNASSUS AVENUE - SAN FRANCISCO, CA 94143	94-6036493	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY ELISE MARSAN, MD, PHD, ENTITLED: (A2020443F)
HARVARD MEDICAL SCHOOL 25 SHATTUCK STREET BOSTON, MA 02115	04-2103580	501(C)(3)	300,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY MICHELE CAVALLARI, PHD, ENTITLED: (A2020653S)
THE JACKSON LABORATORY 600 MAIN STREET BAR HARBOR, ME 04609	01-0211513	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY ALAINA REAGAN, PHD, ENTITLED: (A2020677F)

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Part II Continuation of Grants and Other Assistance to Governments and Organizations in the United States (Schedule I (Form 990), Part II.)

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BOSTON UNIVERSITY 881 COMMONWEALTH AVENUE, 4TH FLOOR BOSTON, MA 02215	04-2103547	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY MANVEEN SETHI, PHD, ENTITLED: (A2020687F)
MASSACHUSETTS GENERAL HOSPITAL 125 NASHUA STREET, SUITE 540 BOSTON, MA 02114	04-2697983	501(C)(3)	300,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY KSENIA KASTANENKA, PHD, ENTITLED: (A2020833S)
BAYLOR COLLEGE OF MEDICINE ONE BAYLOR PLAZA HOUSTON, TX 77030	74-1613878	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY SHUO WANG, PHD, ENTITLED: (A2020845F)
MASSACHUSETTS GENERAL HOSPITAL 125 NASHUA STREET, SUITE 540 BOSTON, MA 02114	04-2697983	501(C)(3)	200,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY EUNHEE KIM, PHD, ENTITLED: (A2020870F)
BRIGHAM AND WOMEN'S HOSPITAL 75 FRANCIS STREET BOSTON, MA 02215	04-2312909	501(C)(3)	285,000.	0.			ALZHEIMER'S DISEASE RESEARCH BY PENG LI, PHD, ENTITLED: (A2020886S)
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO - 675 NELSON RISING LANE - SAN FRANCISCO, CA 94107	94-6036493	501(C)(3)	199,953.	0.			ALZHEIMER'S DISEASE RESEARCH BY LYDIA LE PAGE, PHD, ENTITLED: (A2020928F)
MAYO CLINIC, JACKSONVILLE 4500 SAN PABLO ROAD, ROOM 110 JACKSONVILLE, FL 32224	59-3337028	501(C)(3)	251,432.	0.			ALZHEIMER'S DISEASE RESEARCH (CA2017563) MOLECULAR DEGENERATION JOURNAL
UNIVERSITY OF PENNSYLVANIA 3620 HAMILTON WALK PHILADELPHIA, PA 19104	23-1352685	501(C)(3)	14,000.	0.			TRAVEL GRANTS FOR CONFERENCE ATTENDANCE.
NATIONAL INSTITUTES OF HEALTH/ NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND - 9000 ROCKVILLE PIKE - BETHESDA, MD 20892	52-0858115	501(C)(3)	599,286.	0.			ALZHEIMER'S DISEASE RESEARCH BY AMIR KASHANI, MD, PHD, ENTITLED: (CA2020004)

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Part II Continuation of Grants and Other Assistance to Governments and Organizations in the United States (Schedule I (Form 990), Part II.)

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BOSTON UNIVERSITY SCHOOL OF MEDICINE - 72 EAST CONCORD STREET - BOSTON, MA 02215	04-2103547	501(C)(3)	303,514.	0.			ALZHEIMER'S DISEASE RESEARCH BY BENJAMIN WOLOZIN, MD, PHD ENTITLED: (CA2020002)
UNIVERSITY OF DENVER 2155 E. WESLEY AVENUE DENVER, CO 80208	84-0404231	501(C)(3)	75,710.	0.			ALZHEIMER'S DISEASE RESEARCH BY ANN CHARLOTTE GRANHOLM-BENTLEY, PHD, ENTITLED: (CA2018010)
THE MILKEN INSTITUTE 1250 4TH STREET SANTA MONICA, CA 90401	95-4240775	501(C)(3)	10,000.	0.			PROJECT SUPPORT FOR STUDY ON DEMENTIA
THE MILKEN INSTITUTE 1250 4TH STREET SANTA MONICA, CA 90401	95-4240775	501(C)(3)	100,000.	0.			PROJECT SUPPORT FOR STUDY ON NEUROTECHNOLOGY RESEARCH
UNIVERSITY OF ROCHESTER MEDICAL CENTER - 601 ELMWOOD AVENUE - ROCHESTER, NY 14626	16-0743209	501(C)(3)	180,000.	0.			NATIONAL GLAUCOMA RESEARCH BY RICHARD LIBBY, PHD, ENTITLED: (G2020095)
UNIVERSITY OF IOWA 200 HAWKINS DRIVE IOWA CITY, IA 52242	06-2761671	501(C)(3)	180,000.	0.			NATIONAL GLAUCOMA RESEARCH BY JOHN FINGERT, MD, PHD, ENTITLED: (G2020119)
OREGON HEALTH AND SCIENCE UNIVERSITY - 3181 SW SAM JACKSON PARK ROAD - PORTLAND, OR 97239	93-1176109	501(C)(3)	183,947.	0.			NATIONAL GLAUCOMA RESEARCH BY YALI JIA, PHD, ENTITLED: (G2020168)
THE SCHEPENS EYE RESEARCH INSTITUTE - 20 STANIFORD STREET - BOSTON, MA 02114	04-2129889	501(C)(3)	180,000.	0.			NATIONAL GLAUCOMA RESEARCH BY PETR BARANOV, MD, PHD, ENTITLED: (G2020231)
THE JACKSON LABORATORY 600 MAIN STREET BAR HARBOR, ME 04609	01-0211513	501(C)(3)	180,000.	0.			NATIONAL GLAUCOMA RESEARCH BY GARETH HOWELL, PHD, ENTITLED: (G2020254)

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Part II Continuation of Grants and Other Assistance to Governments and Organizations in the United States (Schedule I (Form 990), Part II.)

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WASHINGTON UNIVERSITY 660 SOUTH EUCLID AVENUE ST. LOUIS, MO 63110	43-0653611	501(C)(3)	180,000.	0.			NATIONAL GLAUCOMA RESEARCH BY PHILIP WILLIAMS, PHD, ENTITLED: (G2020255)
UNIVERSITY OF PITTSBURGH 116 ATWOOD STREET, SUITE 201 PITTSBURGH, PA 15213	25-0965591	501(C)(3)	180,000.	0.			NATIONAL GLAUCOMA RESEARCH BY JEFFREY GROSS, PHD, ENTITLED: (G2020277)
EMORY UNIVERSITY 201 DOWMAN DRIVE ATLANTA, GA 30322	58-0566256	501(C)(3)	180,000.	0.			NATIONAL GLAUCOMA RESEARCH BY JEFFREY BOATRIGHT, PHD, ENTITLED: (G2020286)
JOHNS HOPKINS UNIVERSITY 400 N. BROADWAY BALTIMORE, MD 21211	52-0595110	501(C)(3)	180,000.	0.			NATIONAL GLAUCOMA RESEARCH BY JEFF MUMM, PHD, ENTITLED: (G2020315)
UNIVERSITY OF UTAH 201 PRESIDENTS CIRCLE, SUITE 411 SALT LAKE CITY, UT 84112	87-6000525	501(C)(3)	179,930.	0.			NATIONAL GLAUCOMA RESEARCH BY KAREN CURTIN, PHD, ENTITLED: (G2020317)
UNIVERSITY OF SOUTHERN CALIFORNIA 3720 S. FLOWER STREET LOS ANGELES, CA 90033	95-1642394	501(C)(3)	190,000.	0.			NATIONAL GLAUCOMA RESEARCH BY KIMBERLY GOKOFFSKI, MD, PHD, ENTITLED: (G2020331)
THE SCHEPENS EYE RESEARCH INSTITUTE - 20 STANIFORD STREET - BOSTON, MA 02114	04-2129889	501(C)(3)	180,000.	0.			NATIONAL GLAUCOMA RESEARCH BY KIN-SANG CHO, PHD, ENTITLED: (G2020333)
INDIANA UNIVERSITY 980 INDIANA AVENUE INDIANAPOLIS, IN 46202	35-6001673	501(C)(3)	180,000.	0.			NATIONAL GLAUCOMA RESEARCH BY JASON MEYER, PHD, ENTITLED: (G2020369)
UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER - 910 MADISON AVENUE - MEMPHIS, TN 38163	62-6001636	501(C)(3)	180,000.	0.			NATIONAL GLAUCOMA RESEARCH BY SIAMAK YOUSEFI, PHD, ENTITLED: (G2020374)

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UNIVERSITY OF MASSACHUSETTS SCHOOL OF MEDICINE - 55 LAKE AVENUE NORTH - WORCESTER, MA 01655	04-3167352	501(C)(3)	185,000.	0.			MACULAR DEGENERATION RESEARCH BY CLAUDIO PUNZO, PHD, ENTITLED: (M2020016)
UNIVERSITY OF VIRGINIA 1001 N. EMMET STREET CHARLOTTESVILLE, VA 22904	54-6001796	501(C)(3)	180,000.	0.			MACULAR DEGENERATION RESEARCH BY BRADLEY GELFAND, PHD, ENTITLED: (M2020114)
WASHINGTON UNIVERSITY 660 SOUTH EUCLID AVENUE ST. LOUIS, MO 63110	43-0653611	501(C)(3)	185,000.	0.			MACULAR DEGENERATION RESEARCH BY PHILIP RUZYCKI, PHD, ENTITLED: (M2020115)
WEST VIRGINIA UNIVERSITY RESEARCH CORP. - 886 CHESTNUT RIDGE ROAD, SUITE 408 - MORGANTOWN, WV 26506	55-0665758	501(C)(3)	185,000.	0.			MACULAR DEGENERATION RESEARCH BY JIANHAI DU, PHD, ENTITLED: (M2020141)
THE CITY COLLEGE OF CUNY 230 W. 41ST STREET NEW YORK, NY 10036	13-1988190	501(C)(3)	180,000.	0.			MACULAR DEGENERATION RESEARCH BY MARK EMERSON, PHD, ENTITLED: (M2020157)
TULANE UNIVERSITY 6823 SAINT CHARLES AVENUE NEW ORLEANS, LA 70118	72-0423889	501(C)(3)	185,000.	0.			MACULAR DEGENERATION RESEARCH BY SHUSHENG WANG, PHD, ENTITLED: (M2020166)
DUKE UNIVERSITY 2200 W MAIN STREET, SUITE 300 DURHAM, NC 27708	56-0532129	501(C)(3)	185,000.	0.			MACULAR DEGENERATION RESEARCH BY PRIYATHAM METTU, MD, ENTITLED: (M2020168)
WILMER EYE INSTITUTE, JOHNS HOPKINS UNIVERSITY - 733 N. BROADWAY, SUITE 117 - BALTIMORE, MD 21211	52-0595110	501(C)(3)	180,000.	0.			MACULAR DEGENERATION RESEARCH BY MALIA EDWARDS, PHD, ENTITLED: (M2020174)
OKLAHOMA MEDICAL RESEARCH FOUNDATION - 1200 CHILDRENS AVENUE - OKLAHOMA CITY, OK 73104	73-1563627	501(C)(3)	185,000.	0.			MACULAR DEGENERATION RESEARCH BY WILLARD FREEMAN, PHD, ENTITLED: (M2020207)

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THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON - 7000 FANNIN STREET - HOUSTON, TX 77030	74-1761309	501(C)(3)	185,000.	0.			MACULAR DEGENERATION RESEARCH BY AMIR MOHSENIN, MD, PHD, ENTITLED: (M2020216)
UNIVERSITY OF WASHINGTON 4333 BROOKLYN AVENUE, NE SEATTLE, WA 98195	91-6001537	501(C)(3)	185,000.	0.			MACULAR DEGENERATION RESEARCH BY JENNIFER CHAO, MD, PHD, ENTITLED: (M2020217)
THE RESEARCH FOUNDATION FOR SUNY ON BEHALF OF UNIVERSITY AT BUFFALO - 402 CROFTS HALL - BUFFALO, NY 12207	14-1368361	501(C)(3)	195,818.	0.			MACULAR DEGENERATION RESEARCH BY AMY MILLEN, PHD, ENTITLED: (M2020227)
UNIVERSITY OF CALIFORNIA DAVIS SCHOOL OF MEDICINE - ONE SHIELDS AVENUE - DAVIS, CA 95616	94-6036494	501(C)(3)	185,000.	0.			MACULAR DEGENERATION RESEARCH BY GLENN YIU, MD, PHD, ENTITLED: (M2020247)
THE NATIONAL INSTITUTES OF HEALTH/NATIONAL EYE INSTITUTE - 10 CENTER DRIVE - BETHESDA, MD 20892	52-0858115	501(C)(3)	180,000.	0.			MACULAR DEGENERATION RESEARCH BY KAPIL BHARTI, PHD, ENTITLED: (M2020258)
UNIVERSITY OF CALIFORNIA, IRVINE 120 THEORY STREET, SUITE 200 IRVINE, CA 92617	95-2226406	501(C)(3)	185,000.	0.			MACULAR DEGENERATION RESEARCH BY DOROTA SKOWRONSKA-KRAWCZYK, PHD, ENTITLED: (M2020271)
THE JACKSON LABORATORY 600 MAIN STREET BAR HARBOR, ME 04609	01-0211513	501(C)(3)	185,000.	0.			MACULAR DEGENERATION RESEARCH BY JURGEN NAGGERT, MS, PHD, ENTITLED: (M2020284)
RD MEETING, INC. 5200 43 STREET, SUITE 102-279 GAINESVILLE, FL 32606	84-1992631	501(C)(3)	40,000.	0.			CONFERENCE SUPPORT FOR INTERNATIONAL SYMPOSIA ON RETINAL DEGENERATION
ARVO FOUNDATION FOR EYE RESEARCH 1801 ROCKVILLE PIKE, SUITE 400 ROCKVILLE, MD 20852	52-2322462	501(C)(3)	10,000.	0.			2020 EYEFIND RESEARCH GRANT SPONSORSHIP

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ARVO FOUNDATION FOR EYE RESEARCH 1801 ROCKVILLE PIKE, SUITE 400 ROCKVILLE, MD 20852	52-2322462	501(C)(3)	10,000.	0.			2020 TRAVEL GRANTS FOR CONFERENCE ATTENDEES

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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 non-cash assistance	(e) Method of valuation (book, FMV, appraisal, other)	(f) Description of noncash assistance

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

PART I, LINE 2:

BRIGHTFOCUS INTERACTS WITH ALL GRANTEES AT LEAST QUARTERLY BY E-MAIL OR AT SCIENTIFIC MEETINGS. IN ADDITION TO THESE INTERACTIONS, EACH GRANT RECIPIENT IS REQUIRED TO SUBMIT SEPARATE DETAILED ANNUAL SCIENTIFIC PROGRESS AND FINANCIAL REPORTS TO BRIGHTFOCUS. THESE ARE RECEIVED BY THE BRIGHTFOCUS SCIENTIFIC AFFAIRS DEPARTMENT, AND REVIEWED BY SCIENTIFIC STAFF WITH BROAD EXPERTISE, INCLUDING MOLECULAR BIOLOGY, CELL BIOLOGY, BIOCHEMISTRY, AND GENETICS. SENIOR STAFF REVIEWS EACH PROGRESS REPORT AND EVALUATES THE PROJECT FOR SUFFICIENT PROGRESS TOWARDS THE SPECIFIC AIMS

Part IV Supplemental Information

PROPOSED IN THE ORIGINAL APPLICATION OR ANY BUDGETARY CONCERNS. THIS EFFORT IS SUPPORTED BY ADDITIONAL SCIENTIFIC COUNSEL FROM MEMBERS OF THE BRIGHTFOCUS SCIENTIFIC REVIEW COMMITTEES, WHEN REQUIRED. IN ADDITION TO STATEMENTS OF EXPERIMENTAL PROGRESS, ALL GRANTEES ARE ASKED TO REPORT ANY TECHNICAL PUBLICATIONS, MEDIA REPORTS, OR PATENT APPLICATIONS IN WHICH BRIGHTFOCUS-SPONSORED RESEARCH IS DESCRIBED. IF SIGNIFICANT CONCERNS RELATED TO PROGRESS ON THE AWARDS ARE DISCOVERED, AND NOT RESOLVED AFTER INTERACTION WITH THE AWARD GRANTEE, THE BRIGHTFOCUS STAFF RECOMMENDS APPROPRIATE ACTIONS TO THE CHAIR OF THE BOARD OF DIRECTORS SCIENTIFIC AFFAIRS COMMITTEE. IN ACCORDANCE WITH THE GRANT AGREEMENT TERMS AND CONDITIONS, BRIGHTFOCUS MAY WITHHOLD FUNDING, OR DISCONTINUE AN AWARD, FOR ANY GRANTEE THAT FAILS TO ACHIEVE SUFFICIENT PROGRESS OR SUBMIT REQUIRED REPORTS.

AT THE CONCLUSION OF THE GRANT AWARD PERIOD, EACH GRANTEE MUST COMPLETE AND SUBMIT A FINAL REPORT THAT IS ALSO REVIEWED BY THE BRIGHTFOCUS SENIOR SCIENTIFIC STAFF. EVALUATION OF THE WORK OF EACH GRANTEE IS QUALITATIVELY AND QUANTITATIVELY ASSESSED THROUGH VARIOUS METRICS RELATED TO THE IMPACT OF THE GRANT ON ITS TARGETED DISEASE FIELD. SUCH IMPACT METRICS HAVE REVEALED THAT 95% OF BRIGHTFOCUS-SUPPORTED RESEARCH RESULTS IN RESEARCH PUBLICATIONS THAT ADVANCE THE FIELDS SERVED BY BRIGHTFOCUS. THIS IMPACT IS FURTHER SUPPORTED BY ANNUAL CATEGORY NORMALIZED CITATION IMPACT ANALYSIS THAT COMPARES BRIGHTFOCUS-SUPPORTED WORKS TO AN UNBIASED COMPARISON OF IMPACT PERFORMANCE VERSUS THE WORLD AVERAGE. BRIGHTFOCUS-SUPPORTED PUBLICATIONS WERE RECENTLY CITED AT 2 TIMES THE FREQUENCY OF THE WORLD AVERAGE. A FINAL EXAMPLE OF IMPACT ASSESSMENT REVEALED THAT THE SUCCESSES OF BRIGHTFOCUS GRANTEES CONTINUE LONG AFTER THE GRANT EXPIRES. ON AVERAGE, EACH GRANTEE RECEIVES ADDITIONAL GRANTS FOR FOLLOW-ON PROJECTS SPAWNED BY

Part IV Supplemental Information

THE BRIGHTFOCUS GRANT, WITH VALUES UP TO 10 TIMES THE LEVEL OF THE INITIAL BRIGHTFOCUS INVESTMENT.

BRIGHTFOCUS SOLICITS FEEDBACK FROM ITS GRANTEES, AND PROVIDES AN ANONYMOUS FORUM FOR COLLECTING SUCH INFORMATION. THROUGH THE BRIGHTFOCUS FOUNDATION WEBSITE AND WITHIN THE SCIENTIFIC PROGRESS REPORTS, THERE ARE DESIGNATED SECTIONS WHERE AWARDEES ARE ASKED TO PROVIDE FEEDBACK TO THE FOUNDATION. THROUGH THIS MECHANISM, THEY ARE GIVEN THE ABILITY TO ANONYMOUSLY PROVIDE FEEDBACK OR COMMUNICATE THEIR CONCERNS TO PROGRAM STAFF OR THE BRIGHTFOCUS' COMPLIANCE OFFICE. ANY SUGGESTIONS, CONCERNS, COMPLAINTS, OR POSITIVE EXPERIENCES CAN BE OUTLINED AND BROUGHT TO THE ATTENTION OF BRIGHTFOCUS IN THIS MANNER, SO THAT BRIGHTFOCUS CAN ADDRESS ANY AREAS NEEDING IMPROVEMENT, REAFFIRM PRAISE-WORTHY POLICIES, OR OTHERWISE ASSESS NEEDS FOR PROGRAMMATIC CHANGE. THE SENIOR LEADERSHIP PRESENTS AND SUMMARIZES THE STATUS AND PROGRESS ON GRANTS TO THE BRIGHTFOCUS BOARD OF DIRECTORS AT EACH OF THEIR QUARTERLY BOARD MEETINGS.

**SCHEDULE J
(Form 990)**

Department of the Treasury
Internal Revenue Service

Compensation Information

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.
 ▶ Go to www.irs.gov/Form990 for instructions and the latest information.

OMB No. 1545-0047

2019

Open to Public Inspection

Name of the organization **BRIGHTFOCUS FOUNDATION** Employer identification number **23-7337229**

Part I Questions Regarding Compensation

1a Check the appropriate box(es) if the organization provided any of the following to or for a person listed on Form 990, Part VII, Section A, line 1a. Complete Part III to provide any relevant information regarding these items.

- | | |
|--|--|
| <input type="checkbox"/> First-class or charter travel | <input type="checkbox"/> Housing allowance or residence for personal use |
| <input type="checkbox"/> Travel for companions | <input type="checkbox"/> Payments for business use of personal residence |
| <input type="checkbox"/> Tax indemnification and gross-up payments | <input type="checkbox"/> Health or social club dues or initiation fees |
| <input type="checkbox"/> Discretionary spending account | <input type="checkbox"/> Personal services (such as maid, chauffeur, chef) |

b If any of the boxes on line 1a are checked, did the organization follow a written policy regarding payment or reimbursement or provision of all of the expenses described above? If "No," complete Part III to explain **1b**

2 Did the organization require substantiation prior to reimbursing or allowing expenses incurred by all directors, trustees, and officers, including the CEO/Executive Director, regarding the items checked on line 1a? **2**

3 Indicate which, if any, of the following the organization used to establish the compensation of the organization's CEO/Executive Director. Check all that apply. Do not check any boxes for methods used by a related organization to establish compensation of the CEO/Executive Director, but explain in Part III.

- | | |
|---|---|
| <input checked="" type="checkbox"/> Compensation committee | <input type="checkbox"/> Written employment contract |
| <input checked="" type="checkbox"/> Independent compensation consultant | <input checked="" type="checkbox"/> Compensation survey or study |
| <input checked="" type="checkbox"/> Form 990 of other organizations | <input checked="" type="checkbox"/> Approval by the board or compensation committee |

4 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:

- a** Receive a severance payment or change-of-control payment? **4a**
- b** Participate in, or receive payment from, a supplemental nonqualified retirement plan? **4b**
- c** Participate in, or receive payment from, an equity-based compensation arrangement? **4c**
- If "Yes" to any of lines 4a-c, list the persons and provide the applicable amounts for each item in Part III.

Only section 501(c)(3), 501(c)(4), and 501(c)(29) organizations must complete lines 5-9.

5 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:

- a** The organization? **5a**
- b** Any related organization? **5b**
- If "Yes" on line 5a or 5b, describe in Part III.

6 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:

- a** The organization? **6a**
- b** Any related organization? **6b**
- If "Yes" on line 6a or 6b, describe in Part III.

7 For persons listed on Form 990, Part VII, Section A, line 1a, did the organization provide any nonfixed payments not described on lines 5 and 6? If "Yes," describe in Part III **7**

8 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**

9 If "Yes" on line 8, did the organization also follow the rebuttable presumption procedure described in Regulations section 53.4958-6(c)? **9**

	Yes	No
1b		
2		
4a		X
4b		X
4c		X
5a		X
5b		X
6a		X
6b		X
7	X	
8		X
9		

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

Schedule J (Form 990) 2019

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

For each individual whose compensation must be reported 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 aren't 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.

(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				
(1) STACY PAGOS HALLER PRESIDENT/CEO	(i)	368,294.	45,000.	2,802.	24,750.	38,652.	479,498.	0.
	(ii)	0.	0.	0.	0.	0.	0.	0.
(2) NANCY LYNN SR. VP STRATEGIC PARTNERSHIPS	(i)	238,037.	2,100.	1,032.	18,133.	32,600.	291,902.	0.
	(ii)	0.	0.	0.	0.	0.	0.	0.
(3) R. BRIAN ELDERTON SR. VP, DEVELOPMENT	(i)	230,713.	0.	1,584.	21,327.	25,255.	278,879.	0.
	(ii)	0.	0.	0.	0.	0.	0.	0.
(4) DAVID F. MARKS, CPA, CMA VP, FINANCE & ADMINISTRATION	(i)	158,558.	3,000.	1,584.	15,614.	43,871.	222,627.	0.
	(ii)	0.	0.	0.	0.	0.	0.	0.
(5) DIANE BOVENKAMP, PHD VP, SCIENTIFIC AFFAIRS	(i)	165,654.	2,400.	360.	15,125.	4,066.	187,605.	0.
	(ii)	0.	0.	0.	0.	0.	0.	0.
(6) MICHAEL BUCKLEY VP, PUBLIC AFFAIRS	(i)	156,830.	2,250.	552.	14,317.	3,549.	177,498.	0.
	(ii)	0.	0.	0.	0.	0.	0.	0.
	(i)							
	(ii)							
	(i)							
	(ii)							
	(i)							
	(ii)							
	(i)							
	(ii)							
	(i)							
	(ii)							
	(i)							
	(ii)							
	(i)							
	(ii)							
	(i)							
	(ii)							

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.

PART I, LINE 7:

AS THE PRESIDENT/CEO'S BONUS WAS NOT A FIXED PAYMENT SPECIFIED IN HER EMPLOYMENT CONTRACT, THIS ITEM HAS BEEN ANSWERED 'YES' IN ACCORDANCE WITH THE INTERNAL REVENUE SERVICE INSTRUCTIONS. HOWEVER, IT SHOULD BE NOTED THAT HER BONUS WAS A NON-FIXED PAYMENT BASED ON BRIGHTFOCUS' INTERNAL PROCEDURES.

THE BOARD OF DIRECTORS CONSIDERS THE AWARD OF A DISCRETIONARY BONUS EACH YEAR. THE DETERMINATION OF THE BONUS COMPENSATION IS CAPPED AS SPECIFIED IN HER EMPLOYMENT CONTRACT, AND IF NOT WARRANTED WILL NOT BE AWARDED AT ALL. THE DETERMINATION IS MADE BY THE FULL BOARD UPON RECOMMENDATION OF ITS EXECUTIVE COMMITTEE THAT IS RESPONSIBLE FOR THE REVIEW OF PRESIDENT/CEO COMPENSATION. THE COMMITTEE CONSIDERS A SET OF GOALS FOR THE PRESIDENT/CEO'S PERFORMANCE DEVELOPED AT THE BEGINNING OF THE YEAR IN CONSULTATION WITH THE PRESIDENT/CEO. EACH GOAL IS EVALUATED AT THE END OF THE FISCAL YEAR TO DETERMINE WHETHER THE GOAL HAS BEEN MET OR EXCEEDED.

THE BONUS IS AWARDED BASED ON A DETAILED REVIEW BY THE BOARD OF DIRECTORS OF WHETHER EACH GOAL HAS BEEN MET OR EXCEEDED.

**SCHEDULE M
(Form 990)**

Noncash Contributions

OMB No. 1545-0047

2019

Open to Public Inspection

Department of the Treasury
Internal Revenue Service

- ▶ Complete if the organizations answered "Yes" on Form 990, Part IV, lines 29 or 30.
- ▶ Attach to Form 990.
- ▶ Go to www.irs.gov/Form990 for instructions and the latest information.

Name of the organization **BRIGHTFOCUS FOUNDATION** Employer identification number **23-7337229**

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	23	114,952.	FMV
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**

	Yes	No
30a During the year, did the organization receive by contribution any property reported in Part I, lines 1 through 28, that it must hold for at least three years from the date of the initial contribution, and which isn't required to be used for exempt purposes for the entire holding period?		X
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?	X	
32a Does the organization hire or use third parties or related organizations to solicit, process, or sell noncash contributions?		X
b If "Yes," describe in Part II.		
33 If the organization didn't report an amount in column (c) for a type of property for which column (a) is checked, describe in Part II.		

LHA For Paperwork Reduction Act Notice, see the Instructions for Form 990. Schedule M (Form 990) 2019

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.

SCHEDULE M, PART I, COLUMN (B):

BRIGHTFOCUS REPORTS THE NUMBER OF CONTRIBUTIONS IN PART I, COLUMN (B).

Multiple horizontal lines for supplemental information.

SCHEDULE O
(Form 990 or 990-EZ)

Department of the Treasury
Internal Revenue Service

Supplemental Information to Form 990 or 990-EZ

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

▶ Attach to Form 990 or 990-EZ.

▶ Go to www.irs.gov/Form990 for the latest information.

OMB No. 1545-0047

2019

Open to Public
Inspection

Name of the organization

BRIGHTFOCUS FOUNDATION

Employer identification number

23-7337229

FORM 990, PART III, LINE 1, DESCRIPTION OF ORGANIZATION MISSION:

BRIGHTFOCUS FUNDS EXCEPTIONAL SCIENTIFIC RESEARCH WORLDWIDE TO DEFEAT
ALZHEIMER'S DISEASE, MACULAR DEGENERATION, AND GLAUCOMA AND PROVIDES
EXPERT INFORMATION ON THESE HEARTBREAKING DISEASES. OUR VISION IS: A
WORLD FREE FROM DISEASES OF MIND AND SIGHT. COLLECTIVELY, 1 IN 16
PEOPLE OVER THE AGE OF 40 IN THE U.S. HAS ONE OF THESE DISEASES.

BRIGHTFOCUS HAS A PROVEN TRACK RECORD OF SUPPORTING THE MOST
INNOVATIVE, EARLY-STAGE RESEARCH SEEKING BETTER UNDERSTANDING,
TREATMENTS, OR, ULTIMATELY, A CURE FOR THESE DISEASES. SINCE 1973,
BRIGHTFOCUS HAS AWARDED MORE THAN \$224 MILLION IN RESEARCH GRANTS TO
THOUSANDS OF SCIENTISTS AROUND THE WORLD. OUR RESEARCH FUNDING HAS LED
TO MAJOR CONTRIBUTIONS TO THE UNDERSTANDING OF THESE DISEASES AND
SUPPORT FOR SCIENTISTS WHO HAVE RECEIVED PRESTIGIOUS AWARDS, INCLUDING
TWO NOBEL PRIZES. AN INDICATOR OF OUR ABILITY TO PUSH NEW BOUNDARIES
OF KNOWLEDGE IS THAT BRIGHTFOCUS-SUPPORTED RESEARCH WAS RECENTLY FOUND
TO HAVE HAD TWICE THE IMPACT ON DRIVING FUTURE SCIENCE THAN WORK
SUPPORTED BY MANY OTHER ORGANIZATIONS.

THE WORLD-CLASS RESEARCH IDENTIFIED AND SUPPORTED BY BRIGHTFOCUS IS ON
THE CUTTING-EDGE OF THE FIGHT TO SAVE MIND AND SIGHT. OUR FUNDING ACTS
AS A CATALYST IN EARLY-STAGE RESEARCH. THE BRIGHTFOCUS RESEARCH
PROGRAMS ARE DESIGNED TO PROVIDE INITIAL FUNDING FOR HIGHLY INNOVATIVE
EXPERIMENTAL IDEAS. DUE TO THE STRUCTURED GRANT REVIEW AND APPROVAL
PROCESS, THE RESEARCH IMPACT OF BRIGHTFOCUS IS VERY HIGH. MOST

RECIPIENTS OF BRIGHTFOCUS FUNDING GO ON TO RECEIVE FUTURE GRANTS FROM

LHA For Paperwork Reduction Act Notice, see the Instructions for Form 990 or 990-EZ.

Schedule O (Form 990 or 990-EZ) (2019)

932211 09-06-19

Name of the organization

BRIGHTFOCUS FOUNDATION

Employer identification number

23-7337229

OTHER SOURCES THAT ARE 10 TIMES LARGER THAN THE ORIGINAL BRIGHTFOCUS AWARD. THIS HIGH RETURN ON BRIGHTFOCUS INVESTMENT SPEAKS TO OUR ABILITY TO IDENTIFY PROMISING RESEARCH IN ITS EARLIEST STAGES AND SPAWN FUTURE SCIENTIFIC DISCOVERIES. IT IS OUR FIRM BELIEF THAT HAVING THE COURAGE TO INVEST IN INNOVATIVE IDEAS WILL LEAD TO REVOLUTIONARY APPROACHES AND LIFE-SAVING BREAKTHROUGHS.

ALONG WITH FUNDING CUTTING-EDGE RESEARCH TO FIND CURES TO SOME OF SOCIETY'S COSTLIEST DISEASES, BRIGHTFOCUS ALSO PROVIDES FREE EDUCATIONAL MATERIALS AND SUPPORT TO HUNDREDS OF THOUSANDS OF PATIENTS AND FAMILIES AFFECTED BY THESE DISEASES NATIONWIDE. WE ROOT THESE EDUCATIONAL MATERIALS IN THE LATEST RESEARCH FINDINGS. BRIGHTFOCUS INCREASES PUBLIC AWARENESS OF ALZHEIMER'S, MACULAR DEGENERATION, AND GLAUCOMA, AND COMMUNICATES WITH THOUGHT LEADERS AND ELECTED OFFICIALS ABOUT THE IMPORTANCE OF SCIENTIFIC RESEARCH IN THESE AREAS.

BRIGHTFOCUS' AWARD-WINNING PUBLIC SERVICE ANNOUNCEMENTS (PSA) HAVE APPEARED ON TELEVISION, RADIO, AND IN PRINT THROUGHOUT THE NATION. THE IMPACT OF ALZHEIMER'S. MAKE A PLAN TODAY: GET YOUR EYES CHECKED AND NOW IS THE MOMENT TO STOP ALZHEIMER'S DISEASE POWERFULLY SEEK TO RAISE AWARENESS AND EARLY DETECTION, AND SIMILAR MESSAGES HAVE BEEN DELIVERED THROUGH DONATED PRINT PSA SPACE IN AIRPORTS AND TRAIN STATIONS, AS WELL AS AT PHARMACIES, AND SUPERMARKETS AND ON LINE. IN FISCAL YEAR 2020, THESE PSA MESSAGES GENERATED \$16,266,962 IN DONATED MEDIA SERVICES AND GARNERED OVER 960 MILLION IMPRESSIONS.

SINCE 2014, THE BRIGHTFOCUS CHATS HAVE BROUGHT TOGETHER PATIENTS AND CAREGIVERS FOR FREE, INTERACTIVE MONTHLY TELEPHONE FORUMS TO LEARN

Name of the organization BRIGHTFOCUS FOUNDATION	Employer identification number 23-7337229
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FROM, AND ASK QUESTIONS OF, LEADING RESEARCHERS AND SPECIALISTS ON VISION DISEASES. THE CHATS ARE ARCHIVED ON OUR WEB SITE, WITH AUDIO AND PRINT TRANSCRIPTS AVAILABLE IN A NUMBER OF ACCESSIBLE FORMATS.

WE CONTINUE TO INCREASE OUR PRINT PUBLICATIONS, MANY IN SPANISH, THAT PROVIDE HELPFUL INFORMATION TO PATIENTS AND CAREGIVERS, AND REGULARLY UNVEIL NEW VIDEO AND AUDIO RESOURCES IN CONJUNCTION WITH ALLIES IN THE MEDICAL AND SCIENTIFIC COMMUNITIES.

PARTNERING WITH SEVERAL HIGH-PROFILE PUBLIC AND PRIVATE ORGANIZATIONS, BRIGHTFOCUS IS HELPING BETTER EDUCATE THE PUBLIC ON THE IMPORTANCE OF PARTICIPATION IN CLINICAL RESEARCH AS A WAY TO ACCELERATE THE PATH TO CURES FOR NEURODEGENERATIVE DISEASES.

SPECIFICALLY, BRIGHTFOCUS IS A PRESENTATION PARTNER FOR TURNING POINT, A DOCUMENTARY ON THE SCIENTISTS AND CLINICAL TRIAL VOLUNTEERS WORKING TO DEVELOP A NEW ALZHEIMER'S MEDICATION. BRIGHTFOCUS IS HELPING THE FILM BE SHOWN IN COMMUNITY SETTINGS ACROSS THE COUNTRY TO INCREASE THE AWARENESS OF, AND PARTICIPATION IN, ALZHEIMER'S CLINICAL RESEARCH.

WE HAVE EXPANDED OUR WRITTEN CONTENT OF KEY RESEARCH FINDINGS, PROMOTING AND SHARING THIS INFORMATION THROUGH OUR WEB SITE AND SOCIAL MEDIA PLATFORMS. CAPITALIZING ON EMERGING USE OF DATA VISUALIZATION, OUR BRIGHTFOCUS INFOGRAPHICS EASILY AND VISUALLY COMMUNICATE INFORMATION ON ALZHEIMER'S, MACULAR DEGENERATION, AND GLAUCOMA. IN THE SPRING OF 2020, WE LAUNCHED A FULL SECTION OF OUR WEBSITE DEDICATED TO SHARING EXCLUSIVE CONTENT ON COVID-19 FOR FAMILIES IMPACTED BY DISEASES OF MIND AND SIGHT.

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MORE SPECIFICALLY, EACH OF THESE PROGRAM AREAS MAIL AWARENESS-RAISING MATERIALS TO HUNDREDS OF THOUSANDS OF HOUSEHOLDS, WITH MESSAGES FOCUSING ON:

- RISK FACTORS AND SYMPTOM RECOGNITION THROUGH PUBLIC AWARENESS AND STEPS THE PUBLIC SHOULD TAKE THAT MAY HELP REDUCE THEIR RISK.
- LIFESTYLE CHOICES THAT PROMOTE GOOD HEALTH, ENCOURAGING READERS TO TAKE ACTION TO REDUCE THE LIKELIHOOD OF THE ONSET OF THE DISEASE.
- RESEARCH RESULTS AND TREATMENTS AVAILABLE TO ADDRESS THE DISEASE.

BRIGHTFOCUS REGULARLY INTERACTS WITH ADVOCACY ORGANIZATIONS, GOVERNMENTS AT ALL LEVELS, AND MEMBERS OF THE MEDIA TO CALL GREATER ATTENTION TO DISEASES OF MIND AND SIGHT AND SHARE THE LATEST RESEARCH AND BEST PRACTICES WITH THE PUBLIC FIGURES AND KEY STAKEHOLDERS. THROUGH OUR OWN OUTREACH EFFORTS, AS WELL AS ACTIVE ROLES IN ADVOCACY COALITIONS, WE HELP ADVANCE THE CAUSE OF PIONEERING SCIENCE AND BETTER POSITION BRIGHTFOCUS AS A RESOURCE FOR THOSE STRUGGLING WITH, AND SEARCHING FOR CURES FOR, THESE TERRIBLE DISEASES.

BRIGHTFOCUS IS THE PRESENTING SPONSOR OF THE HELEN KELLER PRIZE FOR VISION RESEARCH, ONE OF THE MOST PRESTIGIOUS RECOGNITIONS IN THE FIELD. SELECTED BY A PANEL OF THE WORLD'S FOREMOST VISION SCIENTISTS, EACH YEAR'S LAUREATE IS HONORED FOR A GROUNDBREAKING CONTRIBUTION OR DISCOVERY TO SAVE SIGHT. BRIGHTFOCUS BEGAN ITS SPONSORSHIP IN 2015 TO CALL GREATER ATTENTION TO VISION RESEARCH ACROSS THE PRIVATE AND PUBLIC SECTORS.

Name of the organization BRIGHTFOCUS FOUNDATION	Employer identification number 23-7337229
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FORM 990, PART III, LINE 4A, DESCRIPTION OF PROGRAM SERVICE:

NOTABLE PROJECTS INCLUDE: USING THE EYE TO DETECT DEMENTIA; LIFESTYLE EFFECTS ON RISK OF ALZHEIMER'S; DRUG DISCOVERY; MOLECULAR AND DIGITAL BIOMARKERS; THE ROLE OF INFLAMMATION IN DISEASE RISK; SCIENTIFIC EXCHANGES; AND BETTER USE OF MODERN TECHNOLOGIES, INCLUDING MOBILE TECHNOLOGIES AND BIG DATA, TO INCREASE THE SPEED OF CLINICAL TRIALS AND RESEARCH PROGRESS. ADDITIONAL INFORMATION ABOUT SPECIFIC PROJECTS IS INCLUDED IN SCHEDULES F & I.

BRIGHTFOCUS IS HONORED TO HAVE SUPPORTED THE EARLY RESEARCH OF TWO NOBEL PRIZE WINNERS: DR. STANLEY PRUSINER AND DR. PAUL GREENGARD, WHOSE WORK HAS BEEN INSTRUMENTAL TO OUR CURRENT UNDERSTANDING OF ALZHEIMER'S DISEASE.

BRIGHTFOCUS CONTINUES ITS PARTNERSHIP WITH THE ACADEMIC JOURNAL "MOLECULAR NEURODEGENERATION" AS THE OFFICIAL JOURNAL OF THE BRIGHTFOCUS FOUNDATION. THE JOURNAL PUBLISHES TECHNICAL PAPERS RELATED TO NEURODEGENERATION IN THE THREE DISEASE AREAS. TO ACCELERATE SCIENTIFIC PROGRESS, IT IS AN "OPEN ACCESS" JOURNAL, AND ALL CONTENT IS FREE OF CHARGE. THIS OPEN ACCESS ENSURES MAXIMAL REACH OF JOURNAL CONTENTS TO SCIENTISTS AND CARE PROVIDERS WORLDWIDE. MOLECULAR NEURODEGENERATION IS CURRENTLY THE HIGHEST IMPACT OPEN ACCESS JOURNAL IN THE NEUROSCIENCES.

IN ADDITION TO SUPPORTING CUTTING-EDGE RESEARCH, ALZHEIMER'S DISEASE RESEARCH PROVIDES EXCELLENT RESOURCES ON DETECTING, TREATING, AND LIVING WITH THE DISEASE. THESE ARE AVAILABLE IN BOTH PRINT AS WELL AS ON OUR WEBSITE, WWW.BRIGHTFOCUS.ORG. ALZHEIMER'S DISEASE IS THE ONLY

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CAUSE OF DEATH AMONG THE TOP 10 IN AMERICA WITHOUT A WAY TO PREVENT, CURE, OR EVEN SLOW ITS PROGRESSION. IT IS AN IRREVERSIBLE DEGENERATION OF THE BRAIN THAT CAUSES DISRUPTIONS IN MEMORY, COGNITION, PERSONALITY, AND OTHER FUNCTIONS AND INEVITABLY LEADS TO DEATH. AN ESTIMATED 5.5 MILLION AMERICANS HAVE ALZHEIMER'S DISEASE, ABOUT TWO-THIRDS ARE WOMEN.

FORM 990, PART III, LINE 4B, DESCRIPTION OF PROGRAM SERVICE:

DURING THE FISCAL YEAR ENDING MARCH 31, 2020, MDR AWARDED \$3,500,818 IN PEER-REVIEWED GRANT AWARDS TO 19 NEW RESEARCH PROJECTS, WITH 3 ADDITIONAL SCIENTIFIC PROJECTS THAT TAKE THE TOTAL FUNDING TO \$3,560,818. DETAILS ABOUT SPECIFIC PROJECTS ARE INCLUDED IN SCHEDULES F & I.

IN ADDITION TO SUPPORTING CUTTING-EDGE RESEARCH, MACULAR DEGENERATION RESEARCH PROVIDES EXCELLENT RESOURCES ON DETECTING, TREATING, AND LIVING WITH THIS DISEASE. THESE ARE AVAILABLE IN BOTH PRINT AS WELL AS ON OUR WEBSITE, WWW.BRIGHTFOCUS.ORG. AGE-RELATED MACULAR DEGENERATION IS A LEADING CAUSE OF VISION LOSS IN THE UNITED STATES. IT DESTROYS THE MACULA, THE PART OF THE EYE THAT PROVIDES SHARP, CENTRAL VISION NEEDED FOR SEEING OBJECTS CLEARLY. THE MOST COMMON EYE CONDITION IN PEOPLE AGE 60 AND OLDER, IT CAN LEAD TO VISION LOSS IN ONE OR BOTH EYES, MAKING IT DIFFICULT TO RECOGNIZE FACES, DRIVE A CAR, OR READ.

FORM 990, PART III, LINE 4C, DESCRIPTION OF PROGRAM SERVICE:

DURING THE FISCAL YEAR ENDING MARCH 31, 2020, NGR AWARDED \$3,079,573 IN PEER-REVIEWED GRANT AWARDS FOR 17 NEW PROJECTS AND ONE OTHER SCIENTIFIC AWARD TO MAKE A TOTAL OF \$3,082,073 IN FUNDING. DETAILS ABOUT SPECIFIC

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PROJECTS ARE INCLUDED IN SCHEDULES F & I.

IN ADDITION TO SUPPORTING CUTTING-EDGE RESEARCH, NATIONAL GLAUCOMA RESEARCH PROVIDES EXCELLENT RESOURCES ON DETECTING, TREATING, AND LIVING WITH THE DISEASE. THESE ARE AVAILABLE IN BOTH PRINT AS WELL AS ON OUR WEBSITE, WWW.BRIGHTFOCUS.ORG. GLAUCOMA IS A GROUP OF DISEASES THAT DAMAGE THE EYE'S OPTIC NERVE AND CAN RESULT IN VISION LOSS AND PERMANENT BLINDNESS. MORE THAN 3 MILLION AMERICANS AGE 40 AND OLDER HAVE GLAUCOMA. MORE THAN 60 MILLION PEOPLE IN THE WORLD HAVE THE DISEASE. WITH EARLY DETECTION AND TREATMENT, GLAUCOMA OFTEN CAN BE MANAGED TO PROTECT EYES FROM MORE SERIOUS VISION LOSS, BUT IT IS ESTIMATED THAT ONLY HALF OF THE PEOPLE LIVING WITH GLAUCOMA ARE AWARE THAT THEY HAVE THE DISEASE.

FORM 990, PART VI, SECTION B, LINE 11B:

A DRAFT OF THE FEDERAL FORM 990 IS DISTRIBUTED TO THE AUDIT COMMITTEE FOR REVIEW PRIOR TO BEING SUBMITTED TO THE INTERNAL REVENUE SERVICE. THE DRAFT FEDERAL FORM 990 IS DISTRIBUTED EARLY ENOUGH TO PROVIDE EACH COMMITTEE MEMBER WITH A REASONABLE AMOUNT OF TIME FOR REVIEW AND SUBMISSION OF QUESTIONS OR COMMENTS PRIOR TO THE FILING DEADLINE. THE FINAL FEDERAL FORM 990 IS DISTRIBUTED TO EACH MEMBER OF THE FULL BOARD OF DIRECTORS PRIOR TO BEING FILED WITH THE INTERNAL REVENUE SERVICE. THE DRAFT OR FINAL FEDERAL FORM 990 MAY BE DISTRIBUTED IN PERSON, BY REGULAR MAIL, E-MAIL, OR FAX.

FORM 990, PART VI, SECTION B, LINE 12C:

BRIGHTFOCUS HAS ALL EMPLOYEES, OFFICERS, AND DIRECTORS AGREE TO THE CODE OF CONDUCT THAT INCLUDES ADHERENCE TO THE CONFLICT OF INTEREST AND IMPLEMENTATION POLICY. EACH BOARD DIRECTOR, OFFICER, AND EMPLOYEE IS

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REQUIRED TO COMPLETE A CONFLICT OF INTEREST DISCLOSURE STATEMENT ANNUALLY.

EMPLOYEES MEET ANNUALLY WITH THE BRIGHTFOCUS' CHIEF COMPLIANCE OFFICER TO REVIEW THEIR CONFLICT OF INTEREST STATEMENTS, AND GIVE AN ANNUAL CONFLICT OF INTEREST COMPLIANCE REPORT TO THE BOARD CHAIR AND VICE CHAIR. IF A CONFLICT IS REPORTED, IT IS THEN REFERRED TO THE PRESIDENT/CEO AND/OR BRIGHTFOCUS' LEGAL COUNSEL AND, IF APPROPRIATE AND NECESSARY, THEN TO THE BOARD OF DIRECTORS OR ITS APPOINTED COMMITTEE FOR FURTHER ACTION.

THE DIRECTOR'S AND OFFICER'S STATEMENTS ARE REVIEWED BY THE BRIGHTFOCUS LEGAL COUNSEL. IF A CONFLICT IS REPORTED, IT IS THEN REFERRED TO THE BOARD OF DIRECTORS OR ITS APPOINTED COMMITTEE FOR FURTHER ACTION.

AT THE TIME OF THE BRIGHTFOCUS DISCUSSION AND DECISION CONCERNING A CONFLICT OF INTEREST, THE CONFLICTED PARTY IS NOT PRESENT IN THE MEETING.

FORM 990, PART VI, SECTION B, LINE 15:

BRIGHTFOCUS' BOARD OF DIRECTORS HAS OVERALL AUTHORITY AND RESPONSIBILITY FOR APPROVING THE ANNUAL BUDGET WHICH INCLUDES SALARY AND BENEFITS FOR ALL EMPLOYEES AT EVERY LEVEL INCLUDING NON-DIRECTOR OFFICERS AND KEY EMPLOYEES. ALL PAY ADJUSTMENTS ARE MADE ON A YEARLY BASIS EFFECTIVE APRIL 1ST, THE BEGINNING OF THE BRIGHTFOCUS FISCAL YEAR.

BEFORE APPROVING THE COMPENSATION OF THE PRESIDENT/CEO, THE BOARD DETERMINES THE TOTAL COMPENSATION TO BE PROVIDED BY BRIGHTFOCUS TO THE PRESIDENT/CEO IS REASONABLE IN LIGHT OF THE POSITION, RESPONSIBILITY AND QUALIFICATION OF THE POSITION HELD INCLUDING THE RESULT OF AN EVALUATION OF PRIOR PERFORMANCE FOR BRIGHTFOCUS, IF APPLICABLE. THE PRESIDENT/CEO IS

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EVALUATED ANNUALLY BY THE BOARD OF DIRECTORS THROUGH THE USE OF AN IN-DEPTH GOAL ATTAINMENT STRUCTURE, (DEVELOPED WITH ADVICE FROM BOARD SOURCE) THAT INCLUDES A SELF ASSESSMENT AND A BOARD OF DIRECTORS ASSESSMENT AND EVALUATION AGAINST SET GOALS, OUTCOMES AND DELIVERABLES. IN ADDITION, THE BOARD OF DIRECTORS PERIODICALLY ENGAGES AN OUTSIDE CONSULTANT TO OBTAIN AND CONSIDER APPROPRIATE DATA, INCLUDING A SALARY SURVEY, WHICH INCLUDES INFORMATION COMPILED FROM THE FEDERAL FORM 990 OF OTHER ORGANIZATIONS, CONCERNING COMPENSATION PAID TO CEOS IN LIKE CIRCUMSTANCES. IN MAKING THE DETERMINATION, THE BOARD OF DIRECTORS SHALL CONSIDER TOTAL COMPENSATION TO INCLUDE THE SALARY AND VALUE OF ALL BENEFITS PROVIDED BY BRIGHTFOCUS TO THE INDIVIDUAL IN PAYMENT FOR SERVICES. AT THE TIME OF THE BRIGHTFOCUS BOARD DISCUSSION AND DECISION CONCERNING THE PRESIDENT/CEO'S COMPENSATION, THE PRESIDENT/CEO IS NOT PRESENT IN THE MEETING.

THE BOARD SHALL SET FORTH THE BASIS FOR ITS DECISIONS WITH RESPECT TO COMPENSATION IN THE MINUTES OF THE MEETING AT WHICH THE DECISIONS ARE MADE, INCLUDING THE CONCLUSIONS OF THE EVALUATION AND THE BASIS FOR DETERMINING THAT THE INDIVIDUAL'S COMPENSATION WAS REASONABLE IN LIGHT OF THE EVALUATION AND COMPARABILITY DATA.

THE PRESIDENT/CEO IS CHARGED WITH THE SETTING OF SALARIES OF ALL OTHER EMPLOYEES IN ACCORDANCE WITH A COMPENSATION STRUCTURE AND BUDGET APPROVED BY THE BOARD OF DIRECTORS. THE PRESIDENT/CEO AND HUMAN RESOURCES REVIEW EMPLOYEE COMPENSATION AND BENEFITS THAT INCLUDE KEY EMPLOYEES, BY PERIODICALLY ENGAGING AN OUTSIDE CONSULTANT TO CONDUCT COMPENSATION AND BENEFIT BENCHMARKING STUDIES THAT INCLUDE VARIOUS REGIONAL AND NATIONAL NON-PROFIT COMPENSATION REPORTS AND SURVEYS. COMPENSATION DELIBERATIONS AND DECISIONS INCLUDE THE REVIEW OF SELF AND SUPERVISORY EVALUATIONS OF

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EMPLOYEE PERFORMANCE COMPARED TO SET INDIVIDUAL AND ORGANIZATIONAL GOALS.

FORM 990, PART VI, LINE 17, LIST OF STATES RECEIVING COPY OF FORM 990:

AK, AL, AR, CA, CT, FL, GA, HI, IL, KS, KY, ME, MD, MA, MI, MN, MO, MS, NC, ND, NH, NJ, NM, NY, OH
OK, OR, PA, RI, SC, TN, UT, VA, WA, WI, WV

FORM 990, PART VI, SECTION C, LINE 19:

BRIGHTFOCUS MAKES ITS GOVERNING DOCUMENTS INCLUDING ITS ARTICLES OF
INCORPORATION AND BYLAWS, THE FEDERAL FORM 1023, THE 501(C)(3) LETTER OF
DETERMINATION FROM THE INTERNAL REVENUE SERVICE, CONFLICT OF INTEREST
POLICY, AUDITED FINANCIAL STATEMENTS AND FEDERAL FORM 990 AVAILABLE TO THE
PUBLIC UPON REQUEST. IN ADDITION, THE PUBLIC ALSO HAS ACCESS TO THE ANNUAL
REPORT, AUDITED FINANCIAL STATEMENTS, THE 501(C)(3) LETTER OF DETERMINATION
FROM THE INTERNAL REVENUE SERVICE, AND FEDERAL FORM 990 ON OUR WEBSITE.

FORM 990, PART XI, LINE 9, CHANGES IN NET ASSETS:

<u>RECOVERIES OF PRIOR YEAR GRANTS</u>	<u>233,154.</u>
<u>CHANGE IN PRESENT VALUE OF GRANTS</u>	<u>-290,798.</u>
<u>TOTAL TO FORM 990, PART XI, LINE 9</u>	<u>-57,644.</u>

SCHEDULE F, PART II, LINE 1, COLUMN D:

REGION: EUROPE (D) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY
JINGHUI LUO, PHD, ENTITLED: (A20201759S) STRUCTURE DETERMINATION OF
ALZHEIMER AND PARKINSON ASSOCIATED OLIGOMERS IN LIPIDIC CUBIC PHASE.
INVESTIGATORS SUMMARY: IN DISEASES SUCH AS ALZHEIMER'S AND PARKINSON'S,
TOXIC PROTEIN LUMPS FORM HOLES IN THEM NERVE CELLS. I WANT TO DISCOVER
HOW THOSE LUMPS ASSEMBLE AT ATOMIC RESOLUTION. GRANT AWARDED: \$100,000,
PAUL SCHERRER INSTITUTE, VILLIGEN, SWITZERLAND. FOR MORE INFORMATION,

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VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201759S.

REGION: EUROPE (D) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY LUCIA CHAVEZ-GUTIERREZ, PHD, ENTITLED: (A20201828S) NANOBODIES STABILIZING GAMMA SECRETASE-APP INTERACTIONS AS NOVEL THERAPEUTICS FOR ALZHEIMER'S. INVESTIGATORS SUMMARY: THE MOLECULAR MACHINERY THAT PRODUCES HARMFUL MATERIAL (AMYLOID BETA) IN THE BRAIN OF PEOPLE AFFECTED WITH ALZHEIMER'S DISEASE (AD) IS WELL KNOWN. WE HAVE RECENTLY SHOWN THAT THIS MOLECULAR MACHINERY (CALLED GAMMA-SECRETASE) IS FRAGILE AND PRONE TO MALFUNCTIONING, BUT FORTUNATELY THE USE OF 'STABILIZING' MOLECULAR BRICKS CAN STOP ITS MALFUNCTION AND PREVENT THE PRODUCTION OF TOXIC, AD-CAUSING MATERIAL. IN THIS PROJECT WE WILL GENERATE NOVEL STABILIZING NANOBLOCKS (CALLED NANOBODIES) TO STABILIZE GAMMA-SECRETASE AND THUS PREVENT THE PRODUCTION OF TOXIC AMYLOID BETA. THE NOVEL NANOBODY STABILIZERS COULD PAVE THE WAY FOR AD THERAPY. GRANT AWARDED: \$299,823, VIB-KU LEUVEN CENTER FOR BRAIN & DISEASE RESEARCH, LEUVEN, BELGIUM. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201828S.

REGION: EUROPE (D) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY THOMAS KARIKARI, PHD, ENTITLED: (A2020812F) PHOSPHO-TAU181: A NEW BLOOD TEST TO PREDICT ALZHEIMER'S DISEASE. INVESTIGATORS SUMMARY: PRESENTLY, THERE IS NO SIMPLE WAY TO DIAGNOSE ALZHEIMER'S DISEASE (AD) OR TO IDENTIFY INDIVIDUALS LIKELY TO DEVELOP THE DISEASE IN THE FUTURE: CURRENT TESTS REQUIRE EXPENSIVE BRAIN IMAGING OR INCONVENIENT PUNCTURE OF THE SPINE. TO ADDRESS THESE CHALLENGES, WE HAVE DEVELOPED A HIGH-PERFORMANCE BLOOD TEST THAT MEASURES A SPECIFIC DISEASE-RELATED CHANGE (CALLED PHOSPHORYLATION) ON A KEY AD-ASSOCIATED PROTEIN CALLED

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TAU. INITIAL CLINICAL APPLICATIONS HAVE SHOWN THAT THE NEW TEST ACCURATELY IDENTIFIES AD PATIENTS AND AT-RISK INDIVIDUALS FROM HEALTHY PATIENTS, AND PROVIDES IMPORTANT INSIGHTS INTO MEMORY DECLINE AND BRAIN SHRINKAGE (BOTH KEY PROCESSES ASSOCIATED WITH THE DISEASE) ONE YEAR AHEAD. IN THIS STUDY, WE PROPOSE TO INVESTIGATE, IN THREE UNIQUELY LARGE PATIENT COHORTS RECRUITED ACROSS THREE CONTINENTS AND CLOSELY MONITORED FOR UP TO A DECADE, IF OUR NEW BLOOD TEST CAN PREDICT WITH HIGH ACCURACY WHO IS LIKELY TO DEVELOP AD SEVERAL YEARS AHEAD, TO SUPPORT EARLY TREATMENT, CLINICAL MANAGEMENT AND RECRUITMENT FOR THERAPY TRIALS. GRANT AWARDED: \$200,000, UNIVERSITY OF GOTHENBURG, GOTHENBURG, SWEDEN. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A2020812F.

REGION: EUROPE (D) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH CONFERENCE SUPPORT. GRANT AWARDED: \$94,181, THE 15TH INTERNATIONAL CONFERENCE ON ALZHEIMER'S & PARKINSON'S DISEASES, BARCELONA, SPAIN.

REGION: NORTH AMERICA (D) PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY AMANDA MELIN, PHD, ENTITLED: (G2020047) OMICS IN A NATURALLY OCCURRING ANIMAL GLAUCOMA MODEL. INVESTIGATORS SUMMARY: BY LEVERAGING ACCESS TO A LARGE, EXISTING SAMPLE OF FRESH EYE TISSUES, WE EXAMINE GENES EXPRESSED, THEIR SEQUENCES, AND THE METABOLITES THAT ARE PRESENT IN INDIVIDUALS WITH AND WITHOUT NATURALLY-OCCURRING GLAUCOMA IN A CLOSELY RELATED ANIMAL MODEL. THESE DATA ARE ESSENTIALLY IMPOSSIBLE TO OBTAIN FOR HUMANS AND PROVIDE A DIRECT WAY TO PROBE THE BIOLOGICAL FUNCTIONS THAT ARE IMPACTED BY GLAUCOMA, ALONG WITH GENETIC RISK FACTORS. THESE DATA HAVE LARGE PROMISE TO GUIDE GENETIC SCREENING PANELS USED IN DIAGNOSIS AND PROGNOSIS OF GLAUCOMA IN HUMANS, AND TO

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IDENTIFY MOLECULES IN OUR BLOOD THAT CAN BE USED FOR EARLY DETECTION AND TREATMENT. GRANT AWARDED: \$197,696, UNIVERSITY OF CALGARY, CALGARY, ALBERTA, CANADA. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/G2020047.

REGION: EUROPE (D) PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY ALBERTA THIADENS, MD, PHD, ENTITLED: (G2020116) GENETICS, MORPHOLOGY AND ENVIRONMENTAL RISK FACTORS OF GLAUCOMA IN PERSONS OF AFRICAN DESCENT. INVESTIGATORS SUMMARY: GLAUCOMA IS A LEADING CAUSE OF BLINDNESS IN THE WORLD, AND IS PARTICULARLY FREQUENT AMONG PERSONS OF AFRICAN DESCENT. GENETIC STUDIES ARE CURRENTLY INVESTIGATING THE CAUSES FOR THIS DISEASE IN AFRICANS, BUT THE GENETIC DIVERSITY IN THE AFRICAN POPULATION IS A MAJOR CHALLENGE IN GENE FINDING THIS CALLS FOR VERY LARGE STUDY POPULATION. WITH THIS PROPOSAL, WE AIM TO FIND THE GENETIC CAUSES FOR GLAUCOMA IN AFRICAN POPULATIONS. IN ADDITION WE WILL FOCUS ON ANCESTRY RELATED ANATOMICAL VARIATION OF THE EYE THAT MIGHT EXPLAIN THE HIGHER VULNERABILITY OF THE OPTIC NERVE. THIS WILL HELP US UNDERSTAND WHY GLAUCOMA IS SO FREQUENT AND SEVERE IN PERSONS FROM AFRICAN ANCESTRY, PROVIDE US WITH KNOWLEDGE ON THE CAUSES OF GLAUCOMA, AND HELP CREATE MEANS TO CURE AND PREVENT THIS DISEASE. GRANT AWARDED: \$150,000, ERASMUS MEDICAL CENTER, ROTTERDAM, THE NETHERLANDS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/G2020116.

SCHEDULE F, PART II, LINE 1, COLUMN D:

REGION: EAST ASIA & PACIFIC (D) PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY KATHRYN BURDON, PHD, ENTITLED: (G2020293) GENETIC STUDIES OF EXFOLIATION SYNDROME AND GLAUCOMA IN ETHIOPIA. INVESTIGATORS

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SUMMARY: GENETICS CAN PLAY A ROLE IN PREDICTING WHO REQUIRES EARLY TREATMENT FOR BLINDING FORMS OF GLAUCOMA, HOWEVER, WE DO NOT FULLY UNDERSTAND ALL THE GENETIC CONTRIBUTIONS TO THIS DISEASE. THERE IS A STARK LACK OF DATA FROM NON-EUROPEAN POPULATIONS, PARTICULARLY THOSE FROM AFRICA, WHICH IS A REGION WITH ONE OF THE HIGHEST BURDENS OF GLAUCOMA. WHAT WE KNOW ABOUT GLAUCOMA GENETICS IN EUROPEANS DOES NOT ALWAYS APPLY TO OTHER POPULATIONS. THIS STUDY WILL INVESTIGATE GENETICS OF GLAUCOMA IN ETHIOPIA, EXPANDING OUR UNDERSTANDING OF GLAUCOMA AND AIMING TO MAKE GENETIC INFORMATION USEFUL IN THE DIAGNOSIS AND MANAGEMENT OF GLAUCOMA FOR PATIENTS ALL AROUND THE WORLD. GRANT AWARDED: \$198,000, UNIVERSITY OF TASMANIA, HOBART, TASMANIA, AUSTRALIA. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/G2020293.

REGION: EAST ASIA & PACIFIC (D) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY WEIYONG SHEN, PHD, ENTITLED: (M2020032) PREVENTING SUBRETINAL FIBROSIS IN WET AMD. INVESTIGATORS SUMMARY: NEOVASCULAR "WET" AGE-RELATED MACULAR DEGENERATION (AMD) IS A MAJOR CAUSE OF BLINDNESS IN AMD. PATIENTS WITH WET AMD ARE CURRENTLY TREATED WITH DRUGS TO STOP ABNORMAL BLOOD VESSEL LEAKING AND BLEEDING BUT THEY MAY STILL LOSE VISION DUE TO THE DEVELOPMENT OF SCAR TISSUE UNDER THE RETINA WHICH IS IRREVERSIBLE ONCE IT HAS BECOME ESTABLISHED. THIS PROJECT WILL DEVELOP A THERAPY FOR PREVENTING SUBRETINAL SCARRING IN EYES WITH NAMD. GRANT AWARDED: \$180,000, SAVE SIGHT INSTITUTE, UNIVERSITY OF SYDNEY, SYDNEY, AUSTRALIA. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020032.

REGION: EUROPE (D) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY

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SABRINA CARRELLA, PHD, ENTITLED: (M2020184) MIR-181A/B MODULATION AS

POTENTIAL THERAPEUTIC APPROACH FOR AMD TREATMENT. INVESTIGATORS

SUMMARY: AGED MACULAR DEGENERATION (AMD) IS A COMMON CAUSE OF BLINDNESS

WORLDWIDE AND THE LOSS OF VISION IS DUE TO PROGRESSIVE LOSS OF SPECIFIC

CELL TYPE OF THE EYE IMPORTANT IN THE VISUAL PROCESS. MULTIPLE FACTORS,

GENETIC AND ENVIRONMENTAL FACTORS, ARE INVOLVED IN THE ONSET AND

PROGRESSION OF THIS DISEASE. WE HAVE IDENTIFIED TWO SMALL MOLECULES

(CALLED MICRORNAS) THAT ARE ABLE TO CONTROL MANY FUNDAMENTAL CELLULAR

PROCESSES AND WHOSE INHIBITION CAN PROTECT OCULAR CELLS FROM DAMAGE AND

RESCUE ALTERATIONS OF VISION. WE PROPOSE TO TEST THE BENEFICIAL EFFECTS

OF THE INHIBITION OF THESE TWO MICRORNAS IN MACULAR DEGENERATION ANIMAL

MODELS AND PAVE THE WAY FOR THE SETUP OF A NOVEL THERAPEUTIC STRATEGY

FOR THIS COMPLEX DISEASE. GRANT AWARDED: \$185,000, FONDAZIONE TELETHON,

ROME, ITALY. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:

WWW.BRIGHTFOCUS.ORG/GRANT/M2020184.

REGION: EUROPE (D) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY

CHRISTOPHER HAMMOND, MD, ENTITLED: (M2020277) EXPLORING THE ROLE OF THE

GUT MICROBIOME IN AGE-RELATED MACULAR DEGENERATION. INVESTIGATORS

SUMMARY: AGE-RELATED MACULAR DEGENERATION (AMD) IS A COMMON

SIGHT-THREATENING CONDITION THAT AFFECTS THE MACULA, THE PART OF THE

RETINA THAT ALLOWS US TO READ, SEE FINE DETAIL AND RECOGNIZE FACES AND

IT IS THE LEADING CAUSE OF SIGHT LOSS IN PEOPLE OVER THE AGE OF 50

YEARS IN THE DEVELOPED WORLD. SOME DIETS HIGH IN VITAMINS, SUCH AS

VITAMINS C AND E ARE THOUGHT TO REDUCE THE CHANCES OF DEVELOPING

SEVERE, SIGHT-THREATENING AMD ALTHOUGH THE EXACT ROLE DIET PLAYS IS NOT

FULLY UNDERSTOOD. AMD IS AN INFLAMMATORY CONDITION AND MANY RESEARCH

STUDIES HAVE FOUND LINKS BETWEEN THE NATURALLY-OCCURRING BACTERIA,

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VIRUSES AND FUNGI IN OUR GUT (THE GUT MICROBIOME) AND OTHER COMMON INFLAMMATORY CONDITIONS ASSOCIATED WITH AGING, SUCH AS CANCER, HEART DISEASE AND ALZHEIMER'S. THE GUT MICROBIOME CAN INFLUENCE AND MODIFY THE BODY'S IMMUNE RESPONSES AND MAY BE OF RELEVANCE IN AMD. THEREFORE, THE AIM OF THIS PROJECT IS TO EXPLORE THE ROLE OF THE GUT MICROBIOME IN AMD WHICH MAY HELP US BETTER UNDERSTAND THE DISEASE TO DEVELOP NEW THERAPIES FOR TREATING THIS COMMON, BLINDING CONDITION. GRANT AWARDED: \$185,000, KING'S COLLEGE, LONDON, UNITED KINGDOM. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020277.

SCHEDULE I, PART II, LINE 1, COLUMN (H):

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF CALIFORNIA, SAN FRANCISCO. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY HYUNJUN YANG, PHD, ENTITLED: (A2020039F) FINGERPRINTING IN VIVO AND IN VITRO PRION STRAINS. INVESTIGATOR'S SUMMARY: ALZHEIMER'S DISEASE (AD) IS ASSOCIATED WITH THE MISFOLDING OF TAU AND AMYLOID-BETA PROTEINS. AD SHARES IMPORTANT MOLECULAR CHARACTERISTICS WITH CLASSICAL PRP PRION DISEASES, INCLUDING THE INDUCED MISFOLDING OF SOLUBLE PROTEINS IN AN AUTOCATALYTIC MANNER AND THE ACCUMULATION OF INSOLUBLE AMYLOIDS. DIFFERENT "CONFORMATIONAL STRAINS" OF PRP GIVE RISE TO DIFFERENT NEURODEGENERATIVE DISEASES. CONFORMATION SENSITIVE DYES ARE USED TO RAPIDLY SCREEN AND FINGERPRINT THESE "CONFORMATIONAL STRAINS" OF PRION PROTEINS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A2020039F.

NAME OF ORGANIZATION OR GOVERNMENT: EMORY UNIVERSITY. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY CHADWICK HALES, MD, PHD, ENTITLED: (A20201057S) SYSTEMIC SIGNALS FROM SKIN IN AGING AND

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ALZHEIMER'S DISEASE. INVESTIGATOR'S SUMMARY: AGE IS THE STRONGEST RISK FACTOR FOR ALZHEIMER'S DISEASE (AD) AND THE WRINKLING OF OUR SKIN. THIS STUDY WILL INVESTIGATE A LINK BETWEEN AGING AND AD-RELATED CHANGES IN THE SKIN AND THE BRAIN. THE ULTIMATE GOAL OF THE PROJECT IS TO IDENTIFY NEW TREATMENT APPROACHES AND NEW MARKERS OF AGING AND AD IN THE SKIN, BLOOD AND/OR SPINAL FLUID. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201057S.

NAME OF ORGANIZATION OR GOVERNMENT: THE NATIONAL INSTITUTES OF HEALTH.

(H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY SARAH HILL, PHD, ENTITLED: (A20201086F) INVESTIGATING COORDINATED LOCAL TRANSLATION AND DEGRADATION IN AXONS AND THE ROLE OF FTD-RELATED GENES. INVESTIGATOR'S SUMMARY: SIMILAR TO HOW GROCERY STORES MAINTAIN A FULL SHELF OF MILK CARTONS BY CONTINUALLY SELLING MILK AND OBTAINING NEW CARTONS, CELLS MUST BALANCE THE REMOVAL OF OLD AND SYNTHESIS OF NEW MATERIALS. IN NEURONS, INSUFFICIENT REMOVAL OF MATERIALS OR DEFECTS IN SYNTHESIS, LEAD TO LOSS OF NEURONAL FUNCTION, ACCUMULATION OF TOXIC AGGREGATES, AND ULTIMATELY NEURON DEATH, CONTRIBUTING TO THE PATHOGENESIS OF NEURODEGENERATIVE DISEASES SUCH AS FRONTOTEMPORAL DEMENTIA (FTD). IN THIS PROPOSAL I WILL EXAMINE HOW THE DISTINCT PROCESSES OF REMOVAL AND SYNTHESIS ARE INTERRELATED. I WILL USE IMAGING TO DETERMINE THEIR PHYSICAL AND TEMPORAL RELATIONSHIP, DRUGS TO BLOCK REMOVAL AND DETERMINE THE EFFECTS ON SYNTHESIS, AND I WILL USE NEURONS CREATED FROM HUMAN CELLS TO BEST DETERMINE THE EXTENT TO WHICH THESE PROCESSES OCCUR DURING FTD. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201086F.

NAME OF ORGANIZATION OR GOVERNMENT: WASHINGTON UNIVERSITY. (H) PURPOSE

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OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY GANESH BABULAL, PHD,
 ENTITLED: (A20201142S) USING NATURALISTIC DRIVING BEHAVIOR AS A
 DIGITAL, NEUROBEHAVIORAL MARKER TO PREDICT THOSE AT RISK FOR
 PRECLINICAL AND SYMPTOMATIC ALZHEIMER DISEASE. INVESTIGATOR'S SUMMARY:
 CRASHES ARE A LEADING CAUSE OF INJURY AND DEATHS AMONG OLDER ADULTS,
 WITH AS MANY AS 19 OLDER ADULTS KILLED EACH DAY, AND CRASHES ARE HIGHER
 AMONG PERSONS WITH ALZHEIMER DISEASE (AD). SINCE 2015, WE TESTED A NEW
 WAY TO CONTINUOUSLY COLLECT DRIVING BEHAVIORS (DISTANCES, SPEEDING,
 HARD BREAKING, TIMES OF DAY DRIVING, ETC.) BY PLUGGING A DEVICE INTO
 PEOPLE'S CARS AND RECORDING HOW THEY DRIVE. THIS WAS TERMED, DRIVING
 REAL-WORLD IN-VEHICLE EVALUATION SYSTEM (DRIVES). WE WILL USE THE
 DRIVES TO SEE IF WE CAN SORT OUT THOSE WHO HAVE EARLY AD FROM THOSE WHO
 DO NOT. WE WILL ALSO LOOK AT WHETHER OR NOT OTHER TESTS OF BRAIN
 ABILITIES, NAVIGATION (FINDING ONE'S WAY AROUND), PHYSICAL FUNCTIONING,
 AND SENSORY FUNCTIONING (VISION, HEARING, SMELL) CAN HELP TELL THESE
 INDIVIDUALS APART MORE ACCURATELY. FOR MORE INFORMATION, VISIT THE
 BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201142S.

NAME OF ORGANIZATION OR GOVERNMENT: THE UNIVERSITY OF TEXAS AT DALLAS.

(H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY HENG DU, MD PHD,
 ENTITLED: (A20201159S) SYNAPTIC MITOCHONDRIAL CALCIUM UNIPORTER
 DEREGULATION AND SYNAPTIC INJURY IN ALZHEIMER'S DISEASE. INVESTIGATOR'S
 SUMMARY: ALZHEIMER'S DISEASE (AD) IS A CHRONIC NEURODEGENERATIVE
 DISORDER CHARACTERIZED BY GRADUAL COGNITIVE DECLINE CURRENTLY WITHOUT
 EFFECTIVE THERAPY. ALTHOUGH THE DETAILED MOLECULAR MECHANISMS STILL
 REMAIN ELUSIVE, DEFECTED MITOCHONDRIAL CALCIUM MODULATION HAS BEEN
 REPEATEDLY LINKED WITH SYNAPTIC DYSFUNCTION AND NEURONAL DEATH IN AD
 MILIEUS. IN THE PROPOSED STUDY, WE WILL PERFORM AN EXAMINATION OF THE

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ROLE OF MITOCHONDRIAL CALCIUM UNIporter (MCU) DEREGULATION IN THE DEVELOPMENT OF MITOCHONDRIAL AND SYNAPTIC PATHOLOGY IN AD. POSITIVE FINDINGS WILL FOSTER OUR UNDERSTANDING OF AD AND SHED LIGHT ON THE DEVELOPMENT OF NOVEL AD THERAPEUTIC AVENUE TARGETING MCU. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:
WWW.BRIGHTFOCUS.ORG/GRANT/A20201159S.

SCHEDULE I, PART II, LINE 1, COLUMN (H):

NAME OF ORGANIZATION OR GOVERNMENT: INDIANA UNIVERSITY. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY JUAN CODOCEDO, PHD, ENTITLED: (A20201166F) ROLE OF HK2 IN TREM2-MEDIATED MICROGLIAL RESPONSE IN AD. INVESTIGATOR'S SUMMARY: ALZHEIMER'S DISEASE IS A NEURODEGENERATIVE DISORDER THAT INDUCES THE ACTIVATION OF THE BRAIN IMMUNE CELLS, THE MICROGLIA. MUTATIONS IN A GENE EXPRESSED ONLY IN MICROGLIA, TREM2, INCREASE THE RISK OF LATE-ONSET ALZHEIMER'S. HOWEVER, THE MOLECULAR MECHANISM INVOLVED IN TREM2 FUNCTION ARE NOT FULLY UNDERSTOOD. IN THIS STUDY, WE WANT TO EVALUATE IF TREM2 CAN INDUCE METABOLIC CHANGES IN THE MICROGLIA THROUGH THE REGULATION OF HEXOKINASE 2 AN IMPORTANT ENZYME OF THE METABOLISM OF GLUCOSE. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201166F.

NAME OF ORGANIZATION OR GOVERNMENT: MICHIGAN STATE UNIVERSITY. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY SCOTT COUNTS, PHD, ENTITLED: (A20201187S) NORADRENERGIC REGULATION OF AMYLOID CLEARANCE IN AD. INVESTIGATOR'S SUMMARY: THE CONTRIBUTION OF CEREBRAL AMYLOID (ABETA) ANGIOPATHY (CAA) AND CEREBROVASCULAR PATHOLOGY TO THE PROGRESSION OF ALZHEIMER'S DISEASE (AD) HAS RECEIVED RENEWED INTEREST IN THE FIELD. THIS PROPOSAL EXPOUNDS UPON COMPELLING PRELIMINARY DATA

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TO TEST THAT DEGENERATION OF THE LOCUS COERULEUS (LC) AND CHOLINERGIC BASAL FOREBRAIN (CBF) PROJECTION SYSTEMS CONTRIBUTES TO COGNITIVE IMPAIRMENT THROUGH THEIR DAMAGING EFFECTS ON INTRAMURAL PERI-ARTERIAL DRAINAGE (IPAD) OF ABETA CONTRIBUTING TO AD/CAA. IF SUCCESSFUL, THIS PROPOSAL WILL ADVANCE THE CLINICAL RATIONALE FOR TARGETING LC/CBF-MEDIATED IPAD AS A DISEASE MODIFYING STRATEGY. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201187S.

NAME OF ORGANIZATION OR GOVERNMENT: BRIGHAM YOUNG UNIVERSITY. (H)

PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY JUSTIN MILLER, PHD, ENTITLED: (A2020118F) LEVERAGING HETEROGENEITY IN ALZHEIMER'S DISEASE

TO ASSESS DIFFERENCES IN LONGITUDINAL HEALTH OUTCOMES. INVESTIGATOR'S

SUMMARY: MILLIONS OF AMERICANS WATCH THEMSELVES OR THEIR LOVED ONES

LOSE THEIR ABILITY TO RETAIN MEMORIES AS THEY ADVANCE THROUGH THE

DEVASTATING STAGES OF ALZHEIMER'S DISEASE (AD) WITH LITTLE GUIDANCE ON

HOW QUICKLY THE DISEASE WILL PROGRESS. WE CAREFULLY DESIGNED AN

APPROACH TO USE MACHINE LEARNING TO GROUP INDIVIDUALS WITH SIMILAR

HEALTH TRAJECTORIES BASED ON THEIR GENETICS, CLINICAL TESTS, AND

NEUROIMAGES, AND WE WILL USE THESE SUBTYPES TO ASSESS DIFFERENCES IN

THE RATE OF COGNITIVE DECLINE, THE AGE OF DISEASE ONSET, AND THE AGE OF

DEATH FOR EACH PROPOSED SUBTYPE USING A LONGITUDINAL DATASET SPANNING

20 YEARS. WE ANTICIPATE THAT IDENTIFYING AD SUBTYPES WILL ALLOW FUTURE

STUDIES TO IMPROVE DIAGNOSES FOR PATIENTS, IDENTIFY SUBTYPE-SPECIFIC

DRUG TARGETS, CALCULATE DISEASE TRAJECTORIES FOR EACH SUBTYPE, FOCUS

CLINICAL TRIALS ON SPECIFIC SUBTYPES, AND EVENTUALLY DEVELOP

SUBTYPE-SPECIFIC TREATMENT PLANS. BY BETTER UNDERSTANDING DIFFERENCES

IN AD, WE WILL PROVIDE PATIENTS AND CAREGIVERS WITH MORE INFORMATION

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ABOUT THE UNDERLYING CAUSES OF THE DISEASE AND THE PROJECTED HEALTH OUTCOMES ASSOCIATED WITH COGNITIVE DECLINE. IN A DISEASE WITH SO MANY UNKNOWNNS, HAVING CLEARER HEALTH TRAJECTORIES AND DIAGNOSES GIVES ALL OF US WITH HOPE THAT WE MIGHT FIND A CURE FOR AT LEAST SOME PATIENTS, AND IMMEDIATELY PROVIDES PATIENTS AND CAREGIVERS CURRENTLY DEALING WITH THE EFFECTS OF AD WITH MORE INFORMATION TO MAKE INFORMED END-OF-LIFE DECISIONS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A2020118F.

NAME OF ORGANIZATION OR GOVERNMENT: BETH ISRAEL DEACONESS MEDICAL CENTER. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY PETER FRIED, PHD, ENTITLED: (A20201288S) EVALUATING CORTICAL EXCITABILITY AND PLASTICITY AS MARKERS OF PRECLINICAL AD. INVESTIGATOR'S SUMMARY: THE GOAL OF THIS STUDY IS TO DEVELOP TESTS THAT CAN DETECT CHANGES IN THE ACTIVITY OF THE BRAIN AT THE EARLIEST STAGE OF ALZHEIMER'S DISEASE (AD) BEFORE PATIENTS START SHOWING SYMPTOMS, WHICH IS KNOWN AS "PRECLINICAL AD." WE WILL RECRUIT HEALTHY OLDER ADULTS WITH NORMAL COGNITION AND USE A NEW BLOOD TEST THAT CAN DETECT THE PROTEINSCALLED AMYLOIDTHAT ARE LINKED TO AD.

WE WILL COLLECT A RANGE OF MEASURES OF THE ACTIVITY OF THE BRAIN AND RELATE THE MEASURES TO THE AMOUNT OF AMYLOID.

KNOWING MORE ABOUT WHAT CHANGES ARE OCCURRING IN THE BRAIN IN PRECLINICAL AD AND HOW TO MEASURE THEM WILL HELP RESEARCHERS DEVELOP NEW THERAPIES TO CHANGE THE COURSE OF THE DISEASE TO DELAY OR PREVENT DEMENTIA. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201288S.

NAME OF ORGANIZATION OR GOVERNMENT: BRIGHAM AND WOMEN'S HOSPITAL. (H)

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PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY MICHAEL MILLER, MD, PHD, ENTITLED: (A20201292F) GENOME-WIDE SOMATIC MUTATIONS IN ALZHEIMER'S DISEASE DURING PATHOLOGIC PROGRESSION. INVESTIGATOR'S SUMMARY: ALZHEIMER'S DISEASE (AD) AND OTHER NEURODEGENERATIVE DISEASES INVOLVE A LOSS OF BRAIN FUNCTION AND BRAIN CELLS OVER TIME AND EVENTUALLY CAUSE DEATH, AFFECTING ONE THIRD OF PEOPLE OVER THE AGE OF 85. RECENT RESEARCH HAS FOUND THAT BRAIN CELLS BUILD UP NEW MUTATIONS IN THE DNA (KNOWN AS SOMATIC MUTATIONS) AS WE GET OLDER, WHICH APPEARS TO HARM THE BRAIN CELLS. THIS PROPOSAL WILL TEST THE HYPOTHESIS THAT SOMATIC MUTATIONS CONTRIBUTE IN IMPORTANT WAYS TO THE PATHOLOGIC PROGRESSION OF AD, AND ARE RELATED TO OTHER KINDS OF DISEASE DAMAGE IN BRAIN CELLS, INCLUDING OXIDATIVE STRESS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201292F.

SCHEDULE I, PART II, LINE 1, COLUMN (H):

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF PENNSYLVANIA. (H)

PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY SADAF AMIN, PHD, ENTITLED: (A20201312F) THE ROLE OF CGAS-STING SIGNALING IN

NEUROINFLAMMATION AND ALZHEIMER'S DISEASE. INVESTIGATOR'S SUMMARY:

THERE IS A HIGH LEVEL OF NEURO-INFLAMMATION IN THE BRAINS OF ALZHEIMER'S PATIENTS. THESE INFLAMMATORY FACTORS ARE SECRETED BY STRESSED CELLS AND LEAD TO DETERIORATION OF OTHER CELL TYPES (E.G. NEURONS) PRESENT IN THE BRAIN. MY PROPOSAL INTENDS TO STUDY THE MOLECULAR PATHWAYS THAT GOVERN THIS INFLAMMATORY RESPONSE INSIDE THE BRAIN AND TARGET THEM TO LIMIT THE NEURONAL DAMAGE THAT LEADS TO COGNITIVE DEFICITS AND MEMORY LOSS IN ALZHEIMER'S DISEASE. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:

WWW.BRIGHTFOCUS.ORG/GRANT/A20201312F.

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NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF SOUTHERN CALIFORNIA.

(H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY LIRONG YAN, PHD,

ENTITLED: (A20201411S) CHARACTERIZING DYSFUNCTION OF CEREBRAL

PERFORATING ARTERIES IN VCID AND AD USING ULTRA-HIGH-FIELD 7 TESLA

HIGH RESOLUTION MRI. INVESTIGATOR'S SUMMARY: BY SHARING WITH THE COMMON

VASCULAR RISK FACTORS, THERE IS AN INCREASING PREVALENCE OF ALZHEIMER'S

DISEASE AND VASCULAR COGNITIVE IMPAIRMENT/DEMENTIA (VCID) WITH AGE.

SMALL VESSEL DISEASE (SVD) INDUCED BY THE DYSFUNCTION OF CEREBRAL

PERFORATING ARTERIES IS ONE OF THE FREQUENT VASCULAR PATHOLOGIES IN THE

AGING BRAIN AND VCID. THE STATE-OF-THE-ART 7T MRI WITH INCREASED

INTRINSIC SIGNAL TO NOISE RATIO (SNR) ALLOWS US TO IMAGE THE CEREBRAL

PERFORATING ARTERIES DIRECTLY. IN THIS STUDY, WE WILL OPTIMIZE TWO

HIGH-RESOLUTION MRI TECHNIQUES AT 7T TO QUANTITATIVELY CHARACTERIZE THE

STRUCTURE AND FLOW FUNCTION OF CEREBRAL PERFORATING ARTERIES, AND STUDY

THE ROLE OF DYSFUNCTION OF CEREBRAL PERFORATING ARTERIES IN THE

PATHOGENESIS OF VCID/AD. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS

WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201411S.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF KENTUCKY. (H) PURPOSE

OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY SIMONE CRIVELLI, PHD,

ENTITLED: (A20201464F) PHARMACOLOGICAL INHIBITION OF CERAMIDE

PRODUCTION IN MITOCHONDRIA AS A TREATMENT FOR ALZHEIMER'S DISEASE.

INVESTIGATOR'S SUMMARY: THERE IS STILL NO CURE FOR ALZHEIMER'S DISEASE

(AD), THEREFORE, A MAJOR CHALLENGE FOR RESEARCHERS IN THE FIELD IS TO

DEVELOP NEW THERAPIES THAT PREVENT OR DELAY ONSET OF THIS DISEASE.

DURING THE AD PROCESS BRAIN CELLS INCLUDING NEURONS ARE UNDER ATTACK BY

HIGH LEVELS OF THE LIPID CERAMIDE. THE CONSEQUENCE OF THIS ELEVATION IS

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THAT NEURONS ARE NOT ABLE TO PRODUCE ENOUGH ENERGY AND ARE MORE EASILY PROGRAMMED TO DIE. HENCE, IN THIS RESEARCH PROPOSAL, WE PROPOSE TO REDUCE CERAMIDE LEVELS IN THE BRAIN TO PROTECT NEURONS FROM DYING AS A NEW THERAPY FOR AD. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201464F.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF CALIFORNIA, SAN FRANCISCO. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY CLAIRE CLELLAND, PHD, MD, MPHIL, ENTITLED: (A20201490F) THERAPEUTIC GENE EDITING IN C9ORF72 FRONTOTEMPORAL DEMENTIA (FTD) AND AMYOTROPHIC LATERAL SCLEROSIS (ALS) PATIENT CELLS. INVESTIGATOR'S SUMMARY: FRONTOTEMPORAL DEMENTIA (FTD) AND AMYOTROPHIC LATERAL SCLEROSIS (ALS) ARE TWO FATAL AND INCURABLE NEURODEGENERATIVE DISEASES LINKED BY A SHARED GENETIC CAUSE A HETEROZYGOUS HEXANUCLEOTIDE (GGGGCC) REPEAT EXPANSION IN A SINGLE ALLELE OF THE C9ORF72 GENE. THE GOAL OF THIS WORK IS TO DEVELOP NOVEL CRISPR BASED THERAPEUTIC GENE EDITING TECHNOLOGIES AND TEST WHETHER GENE EDITING CAN REVERSE THE CELLULAR PATHOLOGY CAUSED BY THIS REPEAT EXPANSION IN PATIENT DERIVED CELLS. THE RESULTS OF THESE STUDIES WILL ADVANCE OUR USE OF CRISPR TECHNOLOGIES FOR THERAPEUTIC EDITING IN FTD/ALS, INFORM OUR UNDERSTANDING OF THE REGULATION OF C9ORF72 GENE, AND WILL BE APPLICABLE TO MANY OTHER REPEAT EXPANSION AND SINGLE GENE DISORDERS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201490F.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF CALIFORNIA, SAN FRANCISCO. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY SAUL VILLEDA, PHD, ENTITLED: (A20201492S) ROLE OF PLATELET-DERIVED FACTORS IN AMELIORATING ALZHEIMER'S DISEASE PATHOLOGY. INVESTIGATOR'S SUMMARY:

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AGING ALTERS THE ADULT BRAIN IN WAYS THAT LEAD TO IMPAIRED LEARNING AND MEMORY, AND AN INCREASED RISK FOR ALZHEIMER'S DISEASE (AD). A GROWING BODY OF WORK INDICATE THAT FACTORS IN YOUNG BLOOD HAVE THE POTENTIAL TO REVERSE AGE-RELATED IMPAIRMENTS IN THE BRAIN IN ANIMAL MODELS OF AGING AND AD. THE PROPOSED STUDY WILL DETERMINE THE THERAPEUTIC POTENTIAL OF YOUNG PLATELETS, AND PLATELET-DERIVED CIRCULATING FACTORS, TO REVERSE NEURODEGENERATIVE PHENOTYPES IN A MOUSE MODEL OF AD, AND ELUCIDATE THEIR DOWNSTREAM MECHANISMS OF ACTION. THE RESULTS WILL HAVE SIGNIFICANT TRANSLATIONAL POTENTIAL, IDENTIFYING A BLOOD-BASED THERAPEUTIC INTERVENTION TO RESTORE FUNCTIONS UNDERLYING AD-RELATED COGNITIVE IMPAIRMENTS AND BROADLY COUNTER DEMENTIA-RELATED NEURODEGENERATIVE DISEASES. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201492S.

SCHEDULE I, PART II, LINE 1, COLUMN (H):

NAME OF ORGANIZATION OR GOVERNMENT: MAYO CLINIC JACKSONVILLE. (H)

PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY CHIA-CHEN LIU, MD,

ENTITLED: (A20201542S) MODULATION OF PERIPHERAL APOE FOR ALZHEIMER

DISEASE THERAPY. INVESTIGATOR'S SUMMARY: HAVING APOLIPOPROTEIN E4

(APOE4) GENE INCREASES A PERSON'S RISK, WHEREAS HAVING APOE2 IS

PROTECTIVE FOR ALZHEIMER'S DISEASES (AD). OUR PREVIOUS STUDY FOUND THAT

APOE4 PRODUCED IN THE LIVER COMPROMISES THE VASCULAR HEALTH AND IMPAIRS

BRAIN FUNCTION (THOUGH APOE4 CIRCULATING IN THE BLOODSTREAM DOES NOT

GET INTO BRAIN). USING OUR UNIQUE MOUSE MODEL IN WHICH APOE2 IS

PRODUCED IN THE LIVER OF APOE4 MICE, OUR STUDIES WILL FOR THE FIRST

TIME TEST WHETHER CONVERTING HARMFUL APOE4 TO PROTECTIVE APOE2 IN THE

LIVER CAN RESTORE BRAIN FUNCTIONS. IN ADDITION, WE WILL EXAMINE WHETHER

TREATING APOE4 MICE WITH APOE2 YOUNG BLOOD PROMOTES AGING-RELATED

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MEMORY DEFICITS AND REDUCES AD DISEASE PROGRESSION. OUR FINDINGS WILL PROVIDE PRECLINICAL EVIDENCE FOR DESIGNING FUTURE HUMAN CLINICAL TRIALS, WHICH MAY OFFER INDIVIDUALIZED TREATMENT STRATEGIES BASED ON APOE GENOTYPE. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201542S.

NAME OF ORGANIZATION OR GOVERNMENT: EMORY UNIVERSITY SCHOOL OF MEDICINE. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY LENORA HIGGINBOTHAM, MD, ENTITLED: (A20201577F) UNRAVELING THE BIOLOGICAL OVERLAP OF ALZHEIMER'S DISEASE AND DEMENTIA WITH LEWY BODIES USING INTEGRATIVE BRAIN-CSF PROTEOMIC ANALYSIS. INVESTIGATOR'S SUMMARY: DEMENTIA WITH LEWY BODIES (DLB) IS A DISABLING DISEASE THAT IS DIFFICULT TO DIAGNOSE BECAUSE IT OFTEN LOOKS SIMILAR TO ALZHEIMER'S DISEASE (AD). OUR RESEARCH AIMS TO UNCOVER KEY DIFFERENCES BETWEEN THESE TWO DISORDERS BY USING CUTTING EDGE TECHNIQUES TO ANALYZE PROTEIN LEVELS IN THE BRAIN AND ITS SURROUNDING FLUID. UNRAVELING THE BIOLOGICAL OVERLAP BETWEEN THESE TWO DEMENTIAS COULD HELP MAKE DLB EASIER TO RECOGNIZE AND EFFECTIVELY TREAT. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201577F.

NAME OF ORGANIZATION OR GOVERNMENT: MAYO CLINIC JACKSONVILLE. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY MARK EBBERT, PHD, ENTITLED: (A2020161S) THERAPEUTIC TARGETS AND DIAGNOSTICS IN ALZHEIMER'S DISEASE. INVESTIGATOR'S SUMMARY: MANY GENES ARE KNOWN TO BE INVOLVED IN ALZHEIMER'S DISEASE (AD), BUT EXACTLY HOW THEY ARE INVOLVED IS UNCLEAR. WE HOPE TO IDENTIFY DNA AND RNA CHANGES THAT DRIVE AD DEVELOPMENT AND PROGRESSION. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A2020161S.

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NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF NOTRE DAME. (H)

PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY JOHN KOREN, PHD,
ENTITLED: (A20201621S) TWISTING TAU AGGREGATES BY PROLINE
ISOMERIZATION. INVESTIGATOR'S SUMMARY: TAU AGGREGATION IS A MAJOR
PATHOGENIC FACTOR IN ALZHEIMER'S DISEASE. OUR STUDIES HAVE IDENTIFIED A
FAMILY OF PROTEINS THAT ALTER TAU AGGREGATION, INCLUDING ONE MEMBER OF
THIS FAMILY CAN DISAGGREGATE TAU AGGREGATES INTO SMALLER NON-TOXIC
ENTITIES. THE GOAL OF THIS PROPOSAL IS TO ELUCIDATE THE MECHANISMS OF
THIS DISAGGREGATION TOWARDS THE ULTIMATE GOAL OF DESIGNING THERAPEUTIC
STRATEGIES THAT MIMIC THIS ACTIVITY. THESE STUDIES WILL IDENTIFY THE
PROPERTIES AND NUMBER OF MEMBERS OF THIS PROTEIN FAMILY THAT PRESENT
THIS ACTIVITY WHILE SIMULTANEOUSLY EXAMINING THE PROPERTIES OF TAU THAT
FACILITATE TOXIC AGGREGATION AND ACCUMULATION. FOR MORE INFORMATION,
VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201621S.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF CALIFORNIA, IRVINE.
(H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY CHRISTEL CLAES,
PHD, ENTITLED: (A20201625F) TRANSCRIPTOMIC AND LIPIDOMIC ANALYSIS OF
HETEROZYGOUS AND HOMOZYGOUS TREM2 R47H HUMAN IPSC-DERIVED MICROGLIA IN
CHIMERIC AD MICE. INVESTIGATOR'S SUMMARY: ALZHEIMER'S DISEASE (AD) IS
THE MOST COMMON TYPE OF DEMENTIA THAT CAUSES PROBLEMS WITH MEMORY,
THINKING AND BEHAVIOR, AND SO FAR WE DON'T UNDERSTAND THIS DISEASE WELL
ENOUGH TO FIND A CURE TO HELP THESE PATIENTS. IN OUR PROPOSAL, WE WANT
TO INCREASE OUR UNDERSTANDING OF THIS DISEASE BY STUDYING MICROGLIA,
THE RESIDENT IMMUNE CELLS OF THE BRAIN, AND A GENE CALLED TREM2 WHICH
WHEN MUTATED CAN SIGNIFICANTLY INCREASE THE RISK OF DEVELOPING AD. OUR
RECENT STUDIES SHOW THAT WHEN WE TRANSPLANT HEALTHY HUMAN STEM

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CELL-DERIVED MICROGLIA CARRYING A NORMAL VERSION OF TREM2 INTO THE BRAIN OF AD MICE THAT DEVELOP AMYLOID PLAQUES (A MAIN CHARACTERISTIC OF THIS DISEASE), HUMAN MICROGLIA NEAR THE PLAQUES SHOW SIMILARITIES TO PERIPHERAL 'FOAM CELLS', WHICH ARE IMMUNE CELLS FILLED WITH LIPIDS AND LINKED WITH ANOTHER DISEASE CALLED "ATHEROSCLEROSIS". AS TREM2 IS A LIPID-SENSOR EXPRESSED BY MICROGLIA, WE NOW WANT TO STUDY THE LIPID CONTENT AND THE REACTION OF HUMAN MICROGLIA THAT CARRY THE TREM2 R47H MUTATION TO AMYLOID PLAQUES IN THIS SPECIALIZED MOUSE MODEL, TO GREATLY IMPROVE OUR UNDERSTANDING OF HOW THIS MUTATION CAN INCREASE AD RISK, WHICH WILL IN TURN ALLOW SCIENTISTS TO FIND TREATMENTS THAT INCREASE THE FUNCTIONALITY OF MICROGLIA TO PROTECT OUR BRAIN FROM THE DAMAGE CAUSED BY THESE AMYLOID PLAQUES. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201625F.

SCHEDULE I, PART II, LINE 1, COLUMN (H):

NAME OF ORGANIZATION OR GOVERNMENT: THE SALK INSTITUTE FOR BIOLOGICAL STUDIES. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY ISABEL SALAS, PHD, ENTITLED: (A20201645F) TARGETING ASTROCYTE FACTORS TO PREVENT SYNAPTIC ALTERATIONS IN ALZHEIMER'S DISEASE. INVESTIGATOR'S SUMMARY: THE BRAIN IS THE CENTER OF COMMAND OF OUR BODIES, CONTROLLING OUR MOTION, OUR BEHAVIOR AND OUR FEELINGS. ITS MAIN COMPONENTS, THE NEURONS, PROCESS INFORMATION BY MAKING SPECIALIZED CONNECTIONS (SYNAPSES) BETWEEN THEM ASSISTED BY OTHER IMPORTANT TYPES OF CELLS: THE ASTROCYTES. ALZHEIMER'S DISEASE (AD) IS ASSOCIATED WITH ALTERATIONS IN THESE CONNECTIONS. IN THIS PROJECT I AIM TO RESTORE THE CORRECT FUNCTION OF ASTROCYTES, TO RESCUE SYNAPTIC DEFECTS, IN MOUSE MODELS AFFECTED BY AD AND MAKE A STEP FURTHER TO THE CURE OF THIS DEVASTATING DISORDER. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:

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NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF CONNECTICUT HEALTH CENTER. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY BRATI DAS, PHD, ENTITLED: (A20201729F) A COMBO OF BACE1 INHIBITORS AND MGLUR PAMS FOR ALZHEIMER'S THERAPY. INVESTIGATOR'S SUMMARY: AMYLOID-BETA (A-BETA) IS THE MAIN COMPONENT OF AMYLOID PLAQUES FOUND IN THE BRAINS OF ALZHEIMER'S PATIENTS. PRODUCTION OF A-BETA IS NEARLY STOPPED BY INHIBITING BACE1 ENZYME. THEREFORE, BACE1 INHIBITORS ARE USED TO REDUCE A-BETA PRODUCTION AND AMYLOID DEPOSITION. BUT THEIR USE CAN LEAD TO MANY SIDE EFFECTS THAT IMPACT LEARNING AND STORAGE OF MEMORY. THEREFORE, IT IS CRITICAL TO DEVELOP NEW THERAPEUTIC STRATEGIES. WE PROPOSE TO USE BACE1 INHIBITOR DRUGS IN COMBINATION WITH MGLUR ACTIVATOR DRUGS. THIS COMBINATION THERAPY WILL STOP THE DISEASE PROGRESSION AND HELP IN MEMORY RETENTION AT THE SAME TIME. WE WILL TEST OUR STRATEGY IN MICE IN THE CURRENT STUDY. POSITIVE RESULTS FROM THIS STUDY WILL PROVIDE ALZHEIMER'S PATIENTS A BETTER QUALITY OF LIFE. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A20201729F.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF PENNSYLVANIA. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY HONG XU, PHD, ENTITLED: (A20201731F) IN VITRO AMPLIFICATION OF HUMAN-DERIVED PATHOGENIC TAU CONFORMERS USING RECOMBINANT TAU. INVESTIGATOR'S SUMMARY: TAU AGGREGATES (TAUOPATHY SEEDS) ENRICHED FROM THE POSTMORTEM BRAINS ALZHEIMER'S DISEASE (AD) PATIENTS EXHIBIT SPECIFIC BIOLOGICAL ACTIVITY OF INDUCING NORMAL TAU INTO MISFOLDED PATHOLOGICAL TAU. BUT THE QUANTITY AND QUALITY OF THE TAUOPATHY SEEDS ARE VERY MUCH LIMITED.

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IN THE STUDY, WE WILL EXPLORE THE SEEDING MECHANISM OF THE HUMAN TAU SEEDS USING IN VITRO REACTIONS FOR A BETTER UNDERSTANDING OF THE PATHOGENESIS OF AD AND OTHER TAUOPATHIES. MOREOVER, WE WANT TO AMPLIFY TAUOPATHY SEEDS IN VITRO BY MAKING USE OF THE SELF-PROPAGATING FEATURES OF THEM AND PROMOTE FUTURE STUDIES OF TAU PATHOLOGY TRANSMISSION. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:
WWW.BRIGHTFOCUS.ORG/GRANT/A20201731F.

NAME OF ORGANIZATION OR GOVERNMENT: WAKE FOREST UNIVERSITY. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY SHANNON MACAULEY, PHD, ENTITLED: (A20201775S) KATP CHANNEL INHIBITION AS A MODIFIER OF TAU PATHOLOGY IN ALZHEIMER'S DISEASE. INVESTIGATOR'S SUMMARY: OVERACTIVE NEURONS ARE THOUGHT TO BE A DRIVER OF ALZHEIMER'S DISEASE (AD) PATHOLOGY. THEREFORE, IDENTIFYING NEW WAYS TO REDUCE BRAIN EXCITABILITY IS AN IMPORTANT STRATEGY FOR TREATING AD. THIS PROPOSAL WILL EXPLORE HOW TARGETING THE BRAIN'S VASCULATURE BY REPURPOSING AN FDA APPROVED DRUG CAN DAMPEN OVERACTIVE NEURONS AND DECREASE AD PATHOLOGY. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:
WWW.BRIGHTFOCUS.ORG/GRANT/A20201775S.

NAME OF ORGANIZATION OR GOVERNMENT: THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY IVANA QUIROGA, PHD, ENTITLED: (A2020203F) IDENTIFYING ALZHEIMER'S DISEASE RISK GENES USING 3D CHROMATIN STRUCTURE AND GENOME EDITING IN IPSC-DERIVED MICROGLIA. INVESTIGATOR'S SUMMARY: TREATMENT OPTIONS FOR ALZHEIMER'S DISEASE (AD) HAVE BEEN ELUSIVE, IN LARGE PART BECAUSE THE GENETIC CAUSES OF THIS DISEASE ARE STILL LARGELY UNKNOWN. THE AIM OF THIS PROJECT IS TO INTEGRATE EXISTING DATA WITH A NOVEL EXPERIMENTAL

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APPROACH TO IDENTIFY GENES THAT ARE LINKED TO THE DEVELOPMENT OF AD. FOR THAT WE WILL USE MODERN GENOMIC AND GENE EDITING TECHNIQUES IN A NOVEL IMMUNE BRAIN CELL MODEL GENERATED FROM STEM CELLS. OUR WORK WILL BREAK DOWN EXISTING BARRIERS BY USING INNOVATIVE TECHNIQUES TO SPEED THE IDENTIFICATION AND CHARACTERIZATION OF UNKNOWN GENES RESPONSIBLE FOR THIS DISEASE. THIS WILL ESTABLISH BASIC KNOWLEDGE THAT THE SCIENTIFIC COMMUNITY REQUIRES TO DEVELOP NEW DIAGNOSTIC AND THERAPEUTIC APPROACHES TO DETECT AND TREAT AD. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A2020203F.

SCHEDULE I, PART II, LINE 1, COLUMN (H):

NAME OF ORGANIZATION OR GOVERNMENT: WASHINGTON UNIVERSITY. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY MAUD GRATUZE, PHD, ENTITLED: (A2020257F) IMPACT OF MICROGLIA AND TREM2 IN TAU PATHOLOGY PROPAGATION. INVESTIGATOR'S SUMMARY: AGGREGATION OF THE TAU PROTEIN IN THE BRAIN IS A HALLMARK OF ALZHEIMER'S DISEASE (AD), AND THE PROPAGATION OF AGGREGATED TAU PROTEIN IS STRONGLY ASSOCIATED WITH THE DEGENERATION AND DEMENTIA. IN ADDITION, BRAIN IMMUNE CELLS, KNOWN AS MICROGLIA, PLAY A CRUCIAL ROLE IN AD AND THE PROPAGATION OF TAU PATHOLOGY IN THE BRAIN. INDEED, MUTATIONS IN TREM2, A PROTEIN FOUND ON MICROGLIA, ARE ONE OF THE STRONGEST GENETIC RISK FACTORS FOR AD. THEREFORE, WE WILL INVESTIGATE IF DECREASING MICROGLIA OR TREM2 LEVELS IN THE BRAIN CAN MODULATE TAU PROPAGATION. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A2020257F.

NAME OF ORGANIZATION OR GOVERNMENT: MAYO CLINIC, JACKSONVILLE (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY SARAH PICKLES, PHD, ENTITLED: (A2020279F) TRUNCATED STATHMIN 2 AS A PROXY FOR TDP-43

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PATHOLOGY IN FRONTOTEMPORAL DEMENTIA AND ALZHEIMER'S DISEASE.

INVESTIGATOR'S SUMMARY: CURRENTLY THE MEDICAL FIELD LACKS RELIABLE

BIOMARKERS TO IDENTIFY A SUBSET OF FRONTOTEMPORAL DEMENTIA AND

ALZHEIMER'S DISEASE (AD) PATIENTS WITH A PARTICULAR TYPE OF PATHOLOGY

IN THE BRAIN, ACCUMULATION OF AGGREGATED TAR DNA BINDING PROTEIN

(TDP-43). THE PRODUCTION OF A NEW MOLECULE, TRUNCATED STATHMIN 2,

ARISING FROM TDP-43 AGGREGATION, MAY BE A WAY TO INDIRECTLY ASSESS

TDP-43 PATHOLOGY. WE PROPOSE TO DEVELOP TOOLS TO DETERMINE IF THERE IS

AN INCREASED AMOUNT OF TRUNCATED STATHMIN 2 IN SPINAL FLUID FROM AD AND

FTD PATIENTS COMPARED TO CONTROLS. THESE FINDINGS HAVE THE POTENTIAL TO

HELP SEPARATE PATIENTS WHO WOULD BENEFIT FROM PARTICULAR THERAPIES IN

UPCOMING CLINICAL TRIALS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS

WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A2020279F.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF MASSACHUSETTS SCHOOL

OF MEDICINE. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY

CHRISTELLE ANACLET, MD, PHD, ENTITLED: (A2020321S) ROLE OF SLOW WAVE

SLEEP IN ALZHEIMER'S DISEASE BEHAVIORAL, CELLULAR AND MOLECULAR

MANIFESTATIONS. INVESTIGATOR'S SUMMARY: COGNITIVE DEFICITS AND SLEEP

DISRUPTION ARE THE TWO MAJOR SYMPTOMS OF ALZHEIMER'S DISEASE (AD).

GIVEN THAT SLEEP IS NECESSARY FOR COGNITION WE WILL TEST SLEEP

ENHANCEMENT AS AN INTERVENTIONAL STRATEGY FOR REDUCING THE BURDEN OF

THE COGNITIVE DEFICIT IN AD, USING OUR NEW AND UNIQUE MOUSE MODEL OF

SLEEP ENHANCEMENT. WE WILL INVESTIGATE, FOR THE FIRST TIME, THE

MECHANISM BY WHICH SLEEP BENEFITS MEMORY, PROVIDING NEW TARGETS FOR

DEVELOPING PHARMACOLOGICAL AND INTERVENTIONAL STRATEGIES TO TREAT SLEEP

AND COGNITIVE SYMPTOMS IN AD. FOR MORE INFORMATION, VISIT THE

BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A2020321.

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NAME OF ORGANIZATION OR GOVERNMENT: JOAN AND SANFORD I. WEILL MEDICAL

COLLEGE OF CORNELL UNIVERSITY. (H) PURPOSE OF GRANT: ALZHEIMER'S

DISEASE RESEARCH BY MAKOTO ISHII, PHD, ENTITLED: (A2020363S)

CIRCULATING IMMUNOMETABOLIC FACTORS IN ALZHEIMER'S DISEASE.

INVESTIGATOR'S SUMMARY: IRREVERSIBLE LOSS OF BRAIN CELLS AND BRAIN

FUNCTION MAY ALREADY EXIST BY THE TIME PATIENTS START DEVELOPING MEMORY

LOSS DUE TO ALZHEIMER'S DISEASE (AD). THEREFORE, IT IS IMPERATIVE TO

IDENTIFY THE EARLIEST CHANGES OCCURRING IN AD, AS THEY MAY YIELD NEW

WAYS TO INTERVENE BEFORE IRREVERSIBLE BRAIN DAMAGE HAS OCCURRED. DURING

THE VERY EARLY STAGES OF AD WHEN THE MEMORY REMAINS RELATIVELY INTACT,

THERE ARE SIGNIFICANT CHANGES IN IMMUNE AND METABOLIC FUNCTION THAT

CONTRIBUTE TO AD; HOWEVER, THE UNDERLYING CAUSE OF THESE CHANGES REMAIN

UNCLEAR. THE GOAL OF THIS PROJECT IS TO IDENTIFY THE CIRCULATING

FACTORS THAT AFFECT IMMUNE AND METABOLIC FUNCTION EARLY IN AD BEFORE

THE MEMORY LOSS AND DETERMINE HOW THEY ARE INVOLVED IN THE OVERALL

DISEASE PROCESS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:

WWW.BRIGHTFOCUS.ORG/GRANT/A2020363S.

NAME OF ORGANIZATION OR GOVERNMENT: WASHINGTON UNIVERSITY. (H) PURPOSE

OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY CARL FRIEDEN, PHD, ENTITLED:

(A2020382S) UNDERSTANDING APOE. INVESTIGATOR'S SUMMARY: OVER 5.6

MILLION PEOPLE IN THE UNITED STATES HAVE ALZHEIMER'S DISEASE (AD).

AMONG THESE INDIVIDUALS ABOUT 50% HAVE A MUTANT PROTEIN CALLED APOE4

WHICH IS CONSIDERED TO BE THE MAJOR RISK FACTOR FOR DEVELOPING LATE

ONSET AD. THE CURRENT PROJECT INVESTIGATES THE PROPERTIES OF THIS

PROTEIN. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:

WWW.BRIGHTFOCUS.ORG/GRANT/A2020382S.

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SCHEDULE I, PART II, LINE 1, COLUMN (H):

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY CALIFORNIA SAN

FRANCISCO. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY ELISE

MARSAN, MD, PHD, ENTITLED: (A2020443F) SINGLE CELL TRANSCRIPTOMICS

ANALYSIS OF SHARED DISEASE MECHANISMS IN AD AND FTLD. INVESTIGATOR'S

SUMMARY: ALZHEIMER'S DISEASE (AD) AND FRONTOTEMPORAL LOBAR DEGENERATION

(FTLD) ARE TWO HIGHLY RELATED NEURODEGENERATIVE DISEASES THAT SHARE

SEVERAL KEY CLINICAL, GENETIC AND NEUROPATHOLOGICAL FEATURES. THE GOAL

OF MY PROJECT IS TO HARNESS THE CUTTING-EDGE SINGLE CELL TRANSCRIPTOMIC

TECHNOLOGY TO UNCOVER COMMON TRANSCRIPTOMIC SIGNATURES THAT CONTRIBUTE

TO DISEASE PROGRESSION IN AD AND FTLD. RESULTS FROM THIS STUDY WILL

PROVIDE IMPORTANT INSIGHTS TO DISEASE MECHANISMS AND AN ENRICHED

RESOURCE FOR THE SCIENTIFIC COMMUNITY. ULTIMATELY, THESE RESULTS WILL

HELP DISCOVER NEW TREATMENTS FOR THESE DEVASTATING DISEASES. FOR MORE

INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:

WWW.BRIGHTFOCUS.ORG/GRANT/A2020443F.

NAME OF ORGANIZATION OR GOVERNMENT: HARVARD MEDICAL SCHOOL. (H) PURPOSE

OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY MICHELE CAVALLARI, PHD,

ENTITLED: (A2020653S) ASSESSING THE PERIVASCULAR CLEARANCE OF BRAIN

DEBRIS IN FAMILIAL AND SPORADIC ALZHEIMER'S DISEASE. INVESTIGATOR'S

SUMMARY: ALZHEIMER'S DISEASE (AD) IS THE MOST COMMON CAUSE OF DEMENTIA

IN THE AGING POPULATION, YET THERE IS NO CURE TO STOP THE PROGRESSION

OF THE DISEASE. WE PROPOSE TO STUDY A PROTECTIVE MECHANISM THAT DRAINS

OUTSIDE THE BRAIN POTENTIALLY HARMFUL TOXINS ASSOCIATED WITH THE

DEVELOPMENT OF AD, SUCH AS BETA-AMYLOID AND TAU PROTEINS, AND THAT HAS

BEEN RECENTLY CHARACTERIZED IN ANIMAL MODELS. WE WILL USE DATA FROM TWO

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LARGE INTERNATIONAL STUDIES OF AD TO INVESTIGATE THIS MECHANISM IN SUBJECTS AT HIGH RISK FOR DEVELOPING DEMENTIA ASSOCIATED WITH THE DISEASE. IN INVESTIGATING THIS MECHANISM FOR THE FIRST TIME IN HUMANS, OUR STUDY COULD SET THE GROUND FOR FUTURE DEVELOPMENT AND TESTING OF THERAPEUTIC APPROACHES TO PREVENT THE DEVELOPMENT OF AD DEMENTIA. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A2020653S.

NAME OF ORGANIZATION OR GOVERNMENT: THE JACKSON LABORATORY. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY ALAINA REAGAN, PHD, ENTITLED: (A2020677F) DETERMINING MECHANISMS BY WHICH VARIATIONS IN THE MTHFR GENE CAUSE CEREBROVASCULAR DAMAGE. INVESTIGATOR'S SUMMARY: HISTORICALLY, BETA-AMYLOID PLAQUES AND TAU TANGLES HAVE BEEN THE FOCUS OF ALZHEIMER'S DISEASE (AD) RESEARCH. HOWEVER, THERE IS INCREASING EVIDENCE THAT BRAIN VASCULAR HEALTH IS A CRITICAL COMPONENT IN THE PROGRESSION OF THE DISEASE. A VARIANT IN THE MTHFR GENE HAS BEEN LINKED TO BOTH VASCULAR DISEASE AND AD IN HUMANS, BUT UNTIL NOW, NO ANIMAL MODEL REPRESENTED THIS RISK FACTOR. HERE, WE HAVE CREATED A NOVEL MOUSE MODEL TO STUDY HOW MTHFR DEFICIENCY AFFECTS BRAIN VASCULAR HEALTH WITH AGE. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A2020677F.

NAME OF ORGANIZATION OR GOVERNMENT: BOSTON UNIVERSITY. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY MANVEEN SETHI, PHD, ENTITLED: (A2020687F) INVOLVEMENT OF THE EXTRACELLULAR MATRIX IN THE PATHOPHYSIOLOGY OF ALZHEIMER'S DISEASE: A GLYCOMICS AND PROTEOMICS STUDY. INVESTIGATOR'S SUMMARY: ALZHEIMER'S DISEASE (AD) IS A LEADING CAUSE OF DEMENTIA, INVOLVING COGNITIVE DECLINE, LOSS OF INDEPENDENCE

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AND BEHAVIORAL ISSUES. IDENTIFYING THE BIOMOLECULAR DEREGLATION ASSOCIATED WITH AD IS CRUCIAL TO DECODE THE UNDERPINNING DISEASE MECHANISMS, TO DISCOVER NEW BIOMARKERS, AND TO IMPROVE TREATMENT STRATEGIES. THIS PROJECT WILL UTILIZE AN ANALYTICAL WORKFLOW, ALLOWING THE EXPLORATION OF THE STRUCTURE AND BIOLOGY OF PROTEINS AND GLYCANS IN AD FROM PATIENT TISSUE SPECIMENS. OUTCOMES OF THIS PROJECT WILL BENEFIT AD PATIENTS BY GENERATING THE FUNDAMENTAL, PREVIOUSLY UNATTAINABLE, GLYCOBIOLOGICAL KNOWLEDGE REQUIRED TO IMPROVE THE DIAGNOSIS AND TREATMENT OF AD. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A2020687F.

NAME OF ORGANIZATION OR GOVERNMENT: MASSACHUSETTS GENERAL HOSPITAL. (H)

PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY KSENIA KASTANENKA, PHD, ENTITLED: (A2020833S) ROLE OF ASTROCYTES IN ALZHEIMER'S DISEASE.

INVESTIGATOR'S SUMMARY: ALZHEIMER'S DISEASE (AD) IS THE MAJOR CAUSE OF DEMENTIA, PRECIPITATED BY LOSS OF NEURONAL CELLS, AND IS CURRENTLY WITHOUT AN EFFECTIVE CURE. A NUMBER OF CLINICAL TRIAL FAILURES HAS BEEN REPORTED DUE TO A LACK OF CLEAR UNDERSTANDING OF ALZHEIMER'S DISEASE CAUSES AND ITS PROGRESSION. THIS PROPOSAL WILL PUSH THE ENVELOPE OF CURRENT AD UNDERSTANDING BEYOND THAT OF NEURONS AND WILL ADDRESS WHETHER NON-NEURONAL CELLS CAUSE AND/OR CONTRIBUTE TO ALZHEIMER'S PROGRESSION USING STATE-OF-THE ART METHODOLOGY. THE INSIGHT GAINED THROUGH THIS LINE OF RESEARCH WILL OPEN VENUES FOR NOVEL DEVELOPMENT OF THERAPEUTICS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A2020833S.

SCHEDULE I, PART II, LINE 1, COLUMN (H):

NAME OF ORGANIZATION OR GOVERNMENT: BAYLOR COLLEGE OF MEDICINE. (H)

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PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY SHUO WANG, PHD,
ENTITLED: (A2020845F) THE ROLE OF LYSOSOME-TO-NUCLEUS SIGNALING AND
REGULATION IN TAU PATHOGENESIS. INVESTIGATOR'S SUMMARY: ACCUMULATION OF
TAU AGGREGATES IN ALZHEIMER'S DISEASE PATIENT BRAINS INFLUENCES BRAIN
HEALTH AND COGNITION. THESE AGGREGATES ARE DEGRADED BY AN INTRACELLULAR
ORGANELLE CALLED THE LYSOSOME. TFEB PLAYS A CRITICAL ROLE IN REGULATING
LYSOSOMAL FUNCTION AND ITS CLEARANCE ABILITY. OUR PROPOSAL INVESTIGATES
HOW TFEB WORKS WITH THE GOAL TO IDENTIFY WAYS TO HARNESS THE LYSOSOMAL
FUNCTION TO PROMOTE BRAIN HEALTH AND COMBAT AGE-ASSOCIATED
NEURODEGENERATIVE DISEASES. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS
WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A2020845F.

NAME OF ORGANIZATION OR GOVERNMENT: MASSACHUSETTS GENERAL HOSPITAL. (H)

PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY EUNHEE KIM, PHD,
ENTITLED: (A2020870F) THE IMPACT OF THE EXERCISE HORMONE IRISIN ON
ASTROCYTES IN ALZHEIMER'S DISEASE. INVESTIGATOR'S SUMMARY: EXERCISE
REDUCES THE RISK OF DEVELOPING ALZHEIMER'S DISEASE (AD) BY UP TO 50
PERCENT AND PROTECTS AGAINST AD BY MODULATING THE INFLAMMATION WHICH IS
HEAVILY DEPENDENT ON BRAIN IMMUNE CELLS: ASTROCYTES. IRISIN IS A NOVEL
EXERCISE-INDUCED HORMONE THAT HAS BEEN IDENTIFIED TO POSSESS SEVERAL
BENEFICIAL ASPECTS OF EXERCISE. THIS WORK AIMS TO UNDERSTAND THE
FUNCTIONAL ROLE OF THE EXERCISE-HORMONE IRISIN IN AD PATHOGENESIS, AND
THE UNDERLYING MOLECULAR MECHANISM OF THE NEUROPROTECTIVE EFFECTS OF
IRISIN IN AD BY REGULATING ASTROCYTES. THE DATA OBTAINED IN THIS
PROPOSAL WILL BE USED TO ADVANCE OUR KNOWLEDGE OF IRISIN AND ASTROCYTES
IN AD, AND ULTIMATELY, TOWARD NOVEL THERAPEUTIC DESIGNS THAT MIMIC THE
BENEFICIAL EFFECTS OF EXERCISE. FOR MORE INFORMATION, VISIT THE
BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/A2020870F.

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NAME OF ORGANIZATION OR GOVERNMENT: BRIGHAM AND WOMEN'S HOSPITAL. (H)

PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY PENG LI, PHD,
ENTITLED: (A2020886S) CIRCADIAN REGULATION, AUTONOMIC FUNCTION, AND
ALZHEIMER'S DISEASE. INVESTIGATOR'S SUMMARY: CURE FOR ALZHEIMER'S
DISEASE (AD) IS STILL LACKING. IT IS IMPORTANT TO IDENTIFY THE RISK
FACTORS FOR THE DISEASE AND ITS MULTIPLE IMPACTS ON BODY FUNCTIONS IN
ORDER TO PREVENT OR SLOW DOWN THE PROGRESSION OF THE DISEASE AND TREAT
RELATED SYMPTOMS. USING NOVEL NON-INVASIVE ASSESSMENT OF CIRCADIAN
REGULATION AND AUTONOMIC FUNCTION BY WEARABLE TECHNOLOGY, THIS PROJECT
IS DESIGNED TO DETERMINE WHETHER CHANGES IN THESE TWO IMPORTANT
PHYSIOLOGICAL FUNCTIONS CAN PREDICT THE DEVELOPMENT AND PROGRESSION OF
AD AND COGNITIVE DECLINE IN THE ELDERLY PEOPLE AT EARLY, PRECLINICAL
STAGES. THIS PROJECT MAY POTENTIALLY PROVIDE NEW INTERVENTION TARGETS
IN FUTURE CLINICAL STUDIES OF AD, AND CAN LAY THE GROUNDWORK FOR THE
DESIGN OF NOVEL UNOBTRUSIVE, COST-EFFICIENT TOOLS FOR LONG-TERM
MONITORING OF COGNITIVE IMPAIRMENT OR RISK FOR AD. FOR MORE
INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:
WWW.BRIGHTFOCUS.ORG/GRANT/A2020886S.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF CALIFORNIA, SAN
FRANCISCO. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY LYDIA
LE PAGE, PHD, ENTITLED: (A2020928F) IMAGING BRAIN KETONE METABOLISM IN
ALZHEIMER'S DISEASE. INVESTIGATOR'S SUMMARY: THE KETOGENIC DIET IS
THOUGHT TO PROVIDE AN ALTERNATIVE FUEL FOR THE STRUGGLING BRAIN IN
ALZHEIMER'S DISEASE (AD) BUT IS THIS FUEL ACTUALLY BEING USED TO MAKE
ENERGY? CURRENTLY WE HAVE NO WAY OF KNOWING. WE WILL DEVELOP A NEW WAY
OF IMAGING THE BRAIN TO SEE IF IT IS USING THE KETONES AS FUEL, AND USE

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THE METHOD TO DISCOVER NEW INSIGHTS INTO BRAIN KETONE METABOLISM IN A
 MOUSE MODEL OF AD. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:
 WWW.BRIGHTFOCUS.ORG/GRANT/A2020928F.

NAME OF ORGANIZATION OR GOVERNMENT: MAYO CLINIC, JACKSONVILLE. (H)

PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY ENTITLED: (CA2017563)

MOLECULAR NEURODEGENERATION JOURNAL. INVESTIGATOR'S SUMMARY: WE PARTNER

WITH BIOMED CENTRAL'S OPEN ACCESS JOURNAL, MOLECULAR NEURODEGENERATION

(MN), WHICH IS THE OFFICIAL JOURNAL OF BRIGHTFOCUS. THE OPEN ACCESS

PUBLISHING MODEL PROVIDES FREE ARTICLES TO THE GENERAL PUBLIC, AS WELL

AS SCIENTISTS, CLINICIANS, AND OTHER HEALTHCARE PRACTITIONERS. MN

PUBLISHES PEER-REVIEWED, ORIGINAL SCIENTIFIC RESEARCH ON THE CAUSES OF

NEURODEGENERATIVE DISEASES, SUCH AS ALZHEIMER'S OR PARKINSON' AND ON

THE PRE-CLINICAL TESTING OF POTENTIAL THERAPIES FOR THESE DEVASTATING

DISEASES. MN HAS AN IMPACT SCORE OF 6.43 (WITH A 5-YEAR IMPACT FACTOR

OF 7.08, REFLECTING THE SUSTAINED IMPACT OF OUR JOURNAL), AND REMAINS

THE HIGHEST RANKED OPEN ACCESS NEUROSCIENCE JOURNAL IN THE JOURNAL

CITATION REPORTS (JCR).

SCHEDULE I, PART II, LINE 1, COLUMN (H):

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF PENNSYLVANIA. (H)

PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY ENTITLED: TRAVEL

SPONSORSHIP FOR ATTENDEES AT INTERNATIONAL GENOMICS OF ALZHEIMER'S

PROJECT MEETING.

NAME OF ORGANIZATION OR GOVERNMENT: NATIONAL INSTITUTES OF HEALTH/

NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE. (H) PURPOSE OF

GRANT: ALZHEIMER'S DISEASE RESEARCH BY AMIR KASHANI, MD, PHD, ENTITLED:

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(CA2020004) OPTICAL COHERENCE TOMOGRAPHY ANGIOGRAPHY BASED ASSESSMENT OF RETINAL CAPILLARY DENSITY AS A BIOMARKER OF VASCULAR COGNITIVE IMPAIRMENT AND DEMENTIA. INVESTIGATOR'S SUMMARY: VASCULAR CONTRIBUTIONS TO COGNITIVE IMPAIRMENT AND DEMENTIA (VCID) ARISE FROM STROKE AND OTHER VASCULAR BRAIN INJURIES THAT CAUSE SIGNIFICANT CHANGES TO MEMORY, THINKING, AND BEHAVIOR. VCID OFTEN OCCURS IN AND CONTRIBUTES TO ALZHEIMER'S DISEASE DEMENTIA. THE DAMAGE IN THE SMALL BLOOD VESSELS IS VERY DIFFICULT TO DETECT WITH CONVENTIONAL TESTING OR BRAIN IMAGING METHODS LIKE MAGNETIC RESONANCE IMAGING (MRI). THE GOAL OF DR. KASHANI'S RESEARCH IS TO DEVELOP NEW METHODS USING THE EYE TO DETECT THE ONSET, PROGRESSION AND SEVERITY OF VCID.

NAME OF ORGANIZATION OR GOVERNMENT: BOSTON UNIVERSITY SCHOOL OF MEDICINE. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY BENJAMIN WOLOZIN, MD, PHD ENTITLED: (CA2020002) DEVELOPMENT OF SYNTHETIC GENE FEEDBACK CIRCUITS TO PREVENT TAU AGGREGATION. INVESTIGATOR'S SUMMARY: THE FAILURE OF CURRENT THERAPEUTIC APPROACHES TO ALZHEIMER'S DISEASE (AD) HIGHLIGHTS THE NEED FOR NEW, INNOVATIVE TECHNOLOGIES TO ADDRESS AD. THIS PROPOSAL USES A RADICALLY NOVEL APPROACH TERMED "SYNTHETIC BIOLOGY", WHICH UTILIZES CIRCUIT DESIGNS INSPIRED BY ELECTRICAL ENGINEERING TO CREATE NOVEL REGULATORY CIRCUITS THAT DRIVE GENES WITH THERAPEUTIC PROMISE. IN THIS PROPOSAL, WE WILL APPLY THESE NOVEL GENETIC ENGINEERING APPROACHES TO CREATE SYNTHETIC GENE NETWORKS THAT ARE ABLE TO REDUCE OR EVEN REVERSE THE PROGRESSION OF AD.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF DENVER. (H) PURPOSE OF GRANT: ALZHEIMER'S DISEASE RESEARCH BY ANN CHARLOTTE

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GRANHOLM-BENTLEY, PHD, ENTITLED: (CA2018010) INTERNATIONAL BRAIN BANK FOR DOWN SYNDROME-RELATED ALZHEIMER'S DISEASE. INVESTIGATOR'S SUMMARY: THE FOCUS OF THIS SPECIAL PROJECT IS TO DEVELOP A STRONG COLLABORATE NETWORK BETWEEN SIX DIFFERENT RESEARCH GROUPS FOCUSED ON PROVIDING MUCH-NEEDED INFORMATION ABOUT THE DOWN SYNDROME POPULATION, OF WHICH AS MANY AS 80 PERCENT HAVE ALZHEIMER'S PATHOLOGY BY THE TIME THEY ARE IN THEIR 50S AND 60S. ALTHOUGH THERE ARE MANY CENTERS AND RESEARCHERS THAT FOCUS ON ALZHEIMER'S IN THE GENERAL POPULATION, FEW OF THEM FOCUS ON PEOPLE WITH DOWN SYNDROME. THE INFORMATION GENERATED BY OUR PROJECT WILL BE OF GREAT HELP TO THOSE WITH DOWN SYNDROME AND THOSE WITH ALZHEIMER'S DISEASE.

NAME OF ORGANIZATION OR GOVERNMENT: THE MILKEN INSTITUTE. (H) PURPOSE OF GRANT: PROJECT SUPPORT FOR STUDY ON "LOWERING THE PRICE AND RISK OF DEMENTIA: POLICY RECOMMENDATIONS TO IMPROVE BRAIN HEALTH AND REDUCE DISPARITIES."

NAME OF ORGANIZATION OR GOVERNMENT: THE MILKEN INSTITUTE. (H) PURPOSE OF GRANT: PROJECT SUPPORT FOR STUDY ON NEUROTECHNOLOGY THAT INCLUDES IDENTIFYING AREAS FOR FUTURE INVESTMENT IN RESEARCH.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF ROCHESTER MEDICAL CENTER. (H) PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY RICHARD LIBBY, PHD, ENTITLED: (G2020095) NEUROTOXIC CYTOKINE SIGNALING IN GLAUCOMA. INVESTIGATOR'S SUMMARY: THIS WORK EXPLORES THE IMPORTANCE OF EXTRINSIC SIGNALLING IN GLAUCOMATOUS NEURODEGENERATION. IT BUILDS ON THE WORK OF MANY GROUPS WHO HAVE PROPOSED THAT AFTER AN OCULAR HYPERTENSIVE INJURY, GLIAL CELLS (CELLS THAT SUPPORT RETINAL NEURONS)

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TRANSITION FROM BEING HELPFUL TO RETINAL GANGLION CELLS TO BEING TOXIC.

SPECIFICALLY, WE PROPOSE TO TEST THE IMPORTANCE OF THREE MOLECULES

THOUGHT TO TURN GLIAL CELLS NEUROTOXIC AFTER A GLAUCOMATOUS INJURY. FOR

MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:

WWW.BRIGHTFOCUS.ORG/GRANT/G2020095.

SCHEDULE I, PART II, LINE 1, COLUMN (H):

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF IOWA. (H) PURPOSE OF

GRANT: NATIONAL GLAUCOMA RESEARCH BY JOHN FINGERT, MD, PHD, ENTITLED:

(G2020119) APBB2 GENE REGULATION AND RISK FOR GLAUCOMA. INVESTIGATOR'S

SUMMARY: OUR RESEARCH HAS IDENTIFIED A NEW GENE (APBB2) THAT IS THE

FIRST RISK FACTOR FOR GLAUCOMA THAT IS UNIQUE TO AFRICAN AMERICAN

POPULATIONS AND MAY EXPLAIN IN PART WHY THEY ARE AT MUCH HIGHER RISK

FOR GLAUCOMA THAN OTHER GROUPS. OUR PRELIMINARY DATA SUGGESTS THAT

APBB2 PROMOTES RISK FOR GLAUCOMA BY INCREASING PRODUCTION OF APBB2

PROTEIN IN THE RETINA AND IN TURN INCREASING DEPOSITION OF TOXIC

BETA-AMYLOID THERE TOO. THE CURRENT PROPOSAL SEEKS TO UNDERSTAND WHAT

DNA SEQUENCES ARE RESPONSIBLE FOR CONTROLLING APBB2 GENE ACTIVITY AND

THUS THE PRODUCTION OF BETA AMYLOID IN THE RETINA AND RISK FOR

GLAUCOMA. WE ARE ESPECIALLY EXCITED ABOUT THE OVERLAP BETWEEN WHAT WE

ARE LEARNING ABOUT GLAUCOMA BIOLOGY WITH OUR RESEARCH AND WHAT IS KNOWN

ABOUT ALZHEIMERS DISEASE AND HOW OUR EXPERIMENTS MAY BENEFIT BOTH AREAS

OF INVESTIGATION. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:

WWW.BRIGHTFOCUS.ORG/GRANT/G2020119.

NAME OF ORGANIZATION OR GOVERNMENT: OREGON HEALTH AND SCIENCE

UNIVERSITY. (H) PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY YALI

JIA, PHD, ENTITLED: (G2020168) CELLULAR-RESOLUTION VISIBLE-LIGHT OCT

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FOR EARLY IDENTIFICATION OF GLAUCOMATOUS NEURODEGENERATION.

INVESTIGATOR'S SUMMARY: GLAUCOMA IS A LEADING CAUSE OF IRREVERSIBLE VISION LOSS AND BLINDNESS. CURRENTLY, DIAGNOSIS AND SCIENTIFIC UNDERSTANDING OF GLAUCOMA IS LIMITED BY THE INABILITY OF MEDICAL INSTRUMENTS TO IMAGE THE EYE IN SUFFICIENT DETAIL TO DETECT THE EARLIEST CHANGES THAT PRESAGE THE DISEASE. BY IMPROVING CURRENT STATE-OF-THE-ART OCULAR IMAGING SYSTEMS USING OPTICAL TOOLS ORIGINALLY DEVELOPED FOR ASTRONOMY, WE WILL ENHANCE IMAGE QUALITY SO THAT EVEN INDIVIDUAL EYE CELLS CAN BE CLEARLY SEEN. USING THE INSTRUMENT WE DEVELOP, WE WILL PERFORM EXPERIMENTS ON RODENT MODELS IN ORDER TO DISCOVER NEW AND IMPROVED INDICATORS OF GLAUCOMA PROGRESSION AND HELP UNDERSTAND THE NATURE OF THE DISEASE. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/G2020168.

NAME OF ORGANIZATION OR GOVERNMENT: THE SCHEPENS EYE RESEARCH INSTITUTE. (H) PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY PETR BARANOV, MD, PHD, ENTITLED: (G2020231) TARGETED MATURATION OF STEM CELL-DERIVED RGCS. INVESTIGATOR'S SUMMARY: RETINAL GANGLION CELLS (RGCS) ARE HIGHLY SPECIALIZED NEURONS, WHICH CONNECT THE PHOTOSENSITIVE PART OF THE EYE WITH THE APPROPRIATE TARGETS IN THE BRAIN. WHILE RGCS EXHIBIT LIMITED PLASTICITY AND CAN FORM NEW CELL-TO-CELL CONNECTIONS THROUGHOUT OUR LIFE, THEIR NUMBER IS FIXED AND NO NEW CELLS ARISE POSTNATALLY. THUS, ANY STRESS FACTORS LEADING TO GANGLION CELL DEATH, SUCH AS HIGH INTRAOCULAR PRESSURE IN GLAUCOMA, TRAUMA OR DRUG TOXICITY, RESULT IN IRREVERSIBLE VISION LOSS. IN OUR PILOT STUDIES WE HAVE DEMONSTRATED THAT MOUSE RETINAL GANGLION CELLS MAY BE PRODUCED FROM RENEWABLE CELL SOURCE - PLURIPOTENT STEM CELLS AND SUCCESSFULLY DELIVERED INTO THE MOUSE EYE. IN THIS PROPOSAL WE AIM TO IMPROVE THE

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DONOR, STEM CELL-DERIVED RGCS MORE MATURE AND DEVELOPMENTALLY CLOSER TO THE "REAL" RGCS. THAT SHOULD SIGNIFICANTLY INCREASE THE TRANSPLANTATION SUCCESS, LEADING TO POTENTIAL THERAPY DEVELOPMENT. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:
WWW.BRIGHTFOCUS.ORG/GRANT/G2020231.

NAME OF ORGANIZATION OR GOVERNMENT: THE JACKSON LABORATORY. (H) PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY GARETH HOWELL, PHD, ENTITLED: (G2020254) DECIPHERING THE ROLE OF THE CDKN2B-AS REGION IN GLAUCOMA. INVESTIGATOR'S SUMMARY: HUMAN GENETIC STUDIES SHOW GLAUCOMA IS CAUSED BY A COMBINATION OF GENETIC RISK FACTORS. HOWEVER, FEW SPECIFIC CHANGES HAVE BEEN DETERMINED. THIS IS SEVERELY HAMPERING OUR ABILITY TO IDENTIFY THOSE AT RISK OF DEVELOPING GLAUCOMA AND DEVELOPING NEW TREATMENTS. IN THIS STUDY WE AIM TO DETERMINE THE SPECIFIC GENETIC ELEMENT IN A GENOMIC REGION THAT SHOWS ONE OF THE STRONGEST ASSOCIATIONS WITH GLAUCOMA. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/G2020254.

NAME OF ORGANIZATION OR GOVERNMENT: WASHINGTON UNIVERSITY. (H) PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY PHILIP WILLIAMS, PHD, ENTITLED: (G2020255) METABOLIC DETERMINANTS OF DIFFERENTIAL RETINAL GANGLION CELL SURVIVAL AND REGENERATION. INVESTIGATOR'S SUMMARY: GLAUCOMA IS CAUSED BY DAMAGE AND DEATH OF RETINAL GANGLION CELLS THAT CONNECT THE EYE TO THE BRAIN. WHILE MANY RETINAL GANGLION CELLS DIE DURING THE COURSE OF GLAUCOMA, SOME PERSIST DESPITE THE HARSH DISEASE ENVIRONMENT. WE WILL DETERMINE HOW THESE RETINAL GANGLION CELLS SURVIVE BY DIRECTLY OBSERVING THEIR ENERGETIC CHARACTERISTICS OVER THE COURSE OF A DISEASE MODEL IN MICE. THIS INFORMATION WILL BE USED TO REPROGRAM THE ENERGETIC

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STATE OF RETINAL GANGLION CELLS TO ATTEMPT THEIR RESCUE IN CONDITIONS OF GLAUCOMA. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/G2020255.

SCHEDULE I, PART II, LINE 1, COLUMN (H):

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF PITTSBURGH. (H)

PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY JEFFREY GROSS, PHD, ENTITLED: (G2020277) IDENTIFICATION OF NOVEL GENES AND PATHWAYS THAT PROTECT RGCS FROM INJURY-INDUCED DEATH. INVESTIGATOR'S SUMMARY: DURING GLAUCOMA, RETINAL GANGLION CELL (RGC) AXONS ARE DAMAGED AND THIS CAUSES THE RGCS TO DIE, ULTIMATELY RESULTING IN THE IRREVERSIBLE LOSS OF VISUAL FUNCTION. CURRENTLY, THERE ARE NO FDA-APPROVED DRUGS OR THERAPIES TO PROTECT RGCS FROM DEATH IN GLAUCOMA. EXPERIMENTS IN THIS PROPOSAL UTILIZE THE ZEBRAFISH AS A MODEL SYSTEM, LEVERAGING ITS UNIQUE BIOLOGY WHERE RGCS DO NOT DIE WHEN THEIR AXONS ARE DAMAGED, EVEN IN EXTREME CASES WHEN THE OPTIC NERVE IS COMPLETELY SEVERED. BY UNDERSTANDING HOW ZEBRAFISH RGCS SURVIVE AFTER AXONAL DAMAGE WE WILL UNCOVER NOVEL MODES OF NEUROPROTECTION THAT COULD ULTIMATELY BE TRANSLATED INTO NEW TARGETS FOR NEUROPROTECTION TO PRESERVE RGCS IN GLAUCOMA PATIENTS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/G2020277.

NAME OF ORGANIZATION OR GOVERNMENT: EMORY UNIVERSITY. (H) PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY JEFFREY BOATRIGHT, PHD, ENTITLED: (G2020286) NICOTINAMIDE RIBOSIDE AS TREATMENT IN MODELS OF RETINAL GANGLION CELL DAMAGE. INVESTIGATOR'S SUMMARY: MITOCHONDRIA ARE THE ENERGY FACTORIES OF CELLS. THE MITOCHONDRIA OF RETINAL GANGLION CELLS LOSE FUNCTION WITH AGE, PROBABLY DUE TO AGE-RELATED LOSS OF

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NICOTINAMIDE ADENINE DINUCLEOTIDE (NAD+), AN ENZYME COFACTOR NEEDED FOR ENERGY PRODUCTION. THE CELLS THUS BECOME MORE SUSCEPTIBLE TO DAMAGE FROM, FOR INSTANCE, ELEVATED PRESSURE IN THE EYE, A COMMON RISK FACTOR FOR GLAUCOMA. WE PROPOSE TO TEST WHETHER SYSTEMIC DELIVERY OF THE NAD+ PRECURSOR NICOTINAMIDE RIBOSIDE, A DIETARY SUPPLEMENT, INCREASES RETINAL NAD+ AND PROTECTS RETINAL GANGLION CELLS IN MOUSE MODELS OF GLAUCOMA. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/G2020286.

NAME OF ORGANIZATION OR GOVERNMENT: JOHNS HOPKINS UNIVERSITY. (H)
 PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY JEFF MUMM, PHD, ENTITLED: (G2020315) NOVEL ZEBRAFISH MODELS ENABLING STUDIES OF RGC REGENERATION. INVESTIGATOR'S SUMMARY: TO RESTORE VISUAL FUNCTION TO GLAUCOMA PATIENTS, THERAPIES ARE NEEDED THAT CAN REPLACE THE SPECIFIC CELL TYPES IN THE EYE THAT ARE LOST, RETINAL GANGLION CELLS (RGCS). ALTHOUGH HUMANS DO NOT NORMALLY REGENERATE LOST RGCS, OUR EYES DO RETAIN A CAPACITY TO PRODUCE NEW NEURONS, SUGGESTING AN UNTAPPED POTENTIAL FOR RGC REGENERATION. UNLIKE US, ZEBRAFISH HAVE A NATURAL ABILITY TO REPLACE LOST CELLS IN THE RETINA, INCLUDING RGCS. BY STUDYING HOW ZEBRAFISH ARE ABLE TO NATURALLY REGENERATE LOST RGCS, WE HOPE TO 1) IDENTIFY GENES AND PATHWAYS THAT ARE IMPORTANT FOR STIMULATING THE EYES ABILITY TO REPAIR ITSELF AND 2) APPLY THIS KNOWLEDGE TOWARD THE DEVELOPMENT OF TRANSFORMATIVE REGENERATIVE THERAPIES FOR GLAUCOMA PATIENTS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/G2020315.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF UTAH. (H) PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY KAREN CURTIN, PHD, ENTITLED:

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(G2020317) PROGNOSTIC FACTORS AND PREDICTIVE MARKERS OF PROGRESSION TO EXFOLIATION GLAUCOMA IN EXFOLIATION SYNDROME. INVESTIGATOR'S SUMMARY: IN PATIENTS WITH EXFOLIATION SYNDROME, WHICH IS MARKED BY ABNORMAL THREADLIKE WHITE FIBERS IN THE FRONT OF THE EYE THAT ACCUMULATE OVER TIME, CAN WE CORRECTLY PREDICT WHO WILL GO ON TO DEVELOP A BUILDUP OF PRESSURE IN ONE OR BOTH EYES KNOWN AS GLAUCOMA, A LEADING CAUSE OF BLINDNESS WORLDWIDE? WE BELIEVE THE ANSWER IS 'YES.' FROM RESEARCHING THOUSANDS OF MEDICAL RECORDS OF EXFOLIATION PATIENTS TO FIND THE CLINICAL CONDITIONS AND PERSONAL CHARACTERISTICS THAT CORRELATE WITH CHANGES IN THE EYES OF OUR EXFOLIATION PATIENTS OVER TIME, WE WILL HELP DOCTORS WHO CARE FOR THESE PATIENTS PREVENT OR DELAY LOSS OF VISION FROM GLAUCOMA THROUGH EARLIER MEDICAL TREATMENT. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/G2020317.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF SOUTHERN CALIFORNIA.

(H) PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY KIMBERLY GOKOFFSKI, MD, PHD, ENTITLED: (G2020331) ELECTRIC FIELDS COLLABORATE WITH CDC42 TO DIRECT OPTIC NERVE REGENERATION. INVESTIGATOR'S SUMMARY: IT IS ESTIMATED THAT 18 MILLION PEOPLE WORLDWIDE ARE LEGALLY BLIND FROM GLAUCOMA, A DISEASE THAT DAMAGES THE OPTIC NERVE, THE CABLE THAT CONNECTS THE EYE TO THE BRAIN. BLINDNESS IN PATIENTS WITH GLAUCOMA IS CURRENTLY IRREVERSIBLE BECAUSE THE CELLS THAT MAKE UP THE OPTIC NERVE, RETINAL NEURONS, ARE NOT ABLE TO REGENERATE. ALTHOUGH SCIENTISTS HAVE BEEN ABLE TO USE STEM CELLS PRODUCE NEW HEALTHY NEURONS, WHEN THESE NEURONS ARE INJECTED INTO THE EYE, THEY ARE UNABLE TO FORM NEW CONNECTIONS WITH THE BRAIN. THIS PROJECT EMPLOYS AN INNOVATIVE TECHNOLOGY THAT USES ELECTRICAL STIMULATION TO DIRECT NEURON GROWTH SO THAT HEALTHY NEURONS THAT HAVE BEEN INJECTED INTO DISEASED EYES MAY

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FORM NEW CONNECTIONS WITH THE BRAIN AND THEREBY RESTORE VISION. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/G2020331.

NAME OF ORGANIZATION OR GOVERNMENT: THE SCHEPENS EYE RESEARCH INSTITUTE. (H) PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY KIN-SANG CHO, PHD, ENTITLED: (G2020333) TREATING IMMUNE-MEDIATED GLAUCOMATOUS NEURAL DEGENERATION USING SPECIALIZED PRO-RESOLVING MEDIATORS.

INVESTIGATOR'S SUMMARY: CONTINUOUS DEGENERATION OF VISION IS NOT UNCOMMON IN GLAUCOMA PATIENTS; IN SPITE OF THE INTRAOCULAR PRESSURE IS MAINTAINING IN NORMAL LEVEL. AMONG VARIOUS TYPES OF IMMUNE CELLS, MICROGLIAL ACTIVATION HAS BEEN KNOWN AS AN EARLY RESPONSIVE IMMUNE CELL IN GLAUCOMA DISEASE. RECENTLY, UNSATURATED FATTY ACID SUCH AS DOCOSAHEXAENOIC ACID (DHA) AND ARACHIDONIC ACID (ARA)-DERIVED SPECIALIZED PRO-RESOLVING MEDIATORS HAS BEEN SHOWN TO RESOLVE INFLAMMATION AND PROTECT AGAINST NEURONAL DEATH IN NEURODEGENERATIVE DISEASES SUCH AS ALZHEIMER'S DISEASE AND SPINAL CORD INJURY. IN THIS PROPOSAL, WE WILL INVESTIGATE THE ROLE DHA-DERIVED SPECIALIZED PRO-RESOLVING MEDIATORS IN SUPPRESSING MICROGLIAL ACTIVATION, PROMOTING NEURONAL SURVIVAL AND VISION IN MOUSE MODELS OF GLAUCOMA. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/G2020333.

SCHEDULE I, PART II, LINE 1, COLUMN (H):

NAME OF ORGANIZATION OR GOVERNMENT: INDIANA UNIVERSITY. (H) PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY JASON MEYER, PHD, ENTITLED: (G2020369) ASTROCYTE EFFECTS ON RGCS IN A STEM CELL MODEL OF GLAUCOMA.

INVESTIGATOR'S SUMMARY: ASTROCYTES ARE KNOWN TO PLAY VITAL ROLES IN THE

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MAINTENANCE OF RETINAL GANGLION CELLS, WITH THESE INTERACTIONS

ADVERSELY AFFECTED IN GLAUCOMA. IN PARTICULAR, AS IS COMMON ACROSS A

NUMBER OF NEURODEGENERATIVE DISEASES, THE MITOCHONDRIA OF THESE CELLS

ARE DAMAGED, PRESUMABLY LEADING TO THE DISEASE PHENOTYPES. THE USE OF

HUMAN PLURIPOTENT STEM CELLS ALLOWS FOR THE PRECISE MODELING OF THESE

INTERACTIONS IN A DISH, PROVIDING THE SPATIAL AND TEMPORAL RESOLUTION

TO CLOSELY EXAMINE HOW MITOCHONDRIAL FUNCTION IS CHANGED IN THESE CELLS

AS A RESULT OF GLAUCOMA, AS WELL AS HOW THESE CHANGES IN MITOCHONDRIA

ALTER THE HEALTH AND FUNCTION OF THE CELLS AS A WHOLE. FOR MORE

INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:

WWW.BRIGHTFOCUS.ORG/GRANT/G2020369.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF TENNESSEE HEALTH

SCIENCE CENTER. (H) PURPOSE OF GRANT: NATIONAL GLAUCOMA RESEARCH BY

SIAMAK YOUSEFI, PHD, ENTITLED: (G2020374) IMPACT OF GLAUCOMA ON RETINAL

GANGLION CELL SUBTYPES. INVESTIGATOR'S SUMMARY: GLAUCOMA IS THE SECOND

LEADING CAUSE OF BLINDNESS WORLDWIDE. IT AFFECTS OVER 90 MILLION PEOPLE

AND ITS INCIDENCE IS PREDICTED TO RISE 2-FOLD OVER THE NEXT TWO

DECADES. GLAUCOMA-INDUCED VISION LOSS AND BLINDNESS RESULT FROM THE

SLOW DEGENERATION AND DEATH OF RETINAL GANGLION CELLS (RGCs). IN HUMAN,

THE LARGE POPULATION OF RGCs CAN BE SUBDIVIDED INTO AT LEAST 30

SUBTYPES. THE SUSCEPTIBILITY OF RGC SUBTYPES TO GLAUCOMA-INDUCED CELL

DEGENERATION DIFFERS SIGNIFICANTLY. BUT IT HAS BEEN SURPRISINGLY

DIFFICULT TO IDENTIFYING BOTH RGC SUBTYPES AND THEIR SUSCEPTIBILITY TO

GLAUCOMA. FOR THE PAST THREE YEARS WE HAVE BEEN DEVELOPING SINGLE-CELL

TECHNOLOGIES TO STUDY BOTH RGC TYPE AND THE EARLY SIGNATURE OF

GLAUCOMA-ASSOCIATED CELLULAR STRESS. WE WILL DEVELOP ARTIFICIAL

INTELLIGENCE (AI) APPROACHES TO IDENTIFY RGC SUBTYPES THAT ARE MORE

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SUSCEPTIBLE TO GLAUCOMA-INDUCED INSULT. OUR RESULTS COULD ADVANCE OUR UNDERSTANDING OF THE GENETIC BASES FOR GLAUCOMA-INDUCED RGC CELL DEATH AND POSSIBLE THERAPEUTIC INTERVENTIONS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/G2020374.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF MASSACHUSETTS SCHOOL OF MEDICINE. (H) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY CLAUDIO PUNZO, PHD, ENTITLED: (M2020016) ELUCIDATING HOW SMOKING CONTRIBUTES TO AMD. INVESTIGATOR'S SUMMARY: AGE-RELATED MACULAR DEGENERATION (AMD) IS THE LEADING CAUSE FOR BLINDNESS AMONG ELDERLY OF THE INDUSTRIALIZED WORLD. AMONG THE NON-GENETIC RISK FACTORS SMOKING CONFERS THE HIGHEST RISK FOR PROGRESSION TO THE ADVANCED STAGES OF GEOGRAPHIC ATROPHY (GA) AND EXUDATIVE AMD; HOWEVER, HOW SMOKING CONTRIBUTES TO AMD REMAINS ELUSIVE. HERE WE PROPOSE THAT SMOKING CAUSES ADVANCED AMD PATHOLOGIES BY DEPLETION OF THE SECOND MOST ABUNDANT SERUM PROTEIN. LOSS OF THIS SERUM PROTEIN IN HUMANS CAUSES EMPHYSEMA, A CONDITION THAT HAS BEEN LINKED TO INCREASED RISK FOR ADVANCED AMD, WHILE WE FOUND THAT LOSS OF THIS SERUM PROTEIN IN MICE, CAUSES BESIDES LUNG PROBLEMS, LATE STAGE AMD PATHOLOGIES. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020016.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF VIRGINIA. (H) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY BRADLEY GELFAND, PHD, ENTITLED: (M2020114) PATHOPHYSIOLOGY OF CHOROIDAL HEMODYNAMICS IN AMD. INVESTIGATOR'S SUMMARY: THE CHOROID IS THE BLOOD VESSEL NETWORK THAT NOURISHES THE RETINA, AND IS A SITE OF AGE-RELATED MACULAR DEGENERATION (AMD). RECENT STUDIES SUGGEST THAT CHOROIDAL BLOOD FLOW IS REDUCED IN AMD, AND THAT LOSS OF CHOROIDAL BLOOD FLOW MAY BE AN IMPORTANT FACTOR

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IN THE INITIATION AND PROGRESSION OF THE DISEASE. IN THIS PROPOSAL, WE WILL USE DONOR EYES AND CUTTING EDGE COMPUTER MODELING AND TO CELLULAR MODELS TO UNDERSTAND WHETHER CHOROICAL BLOOD FLOW PREDISPOSES AND CONTRIBUTES TO AMD. INSIGHTS GLEANED FROM THESE STUDIES COULD INSPIRE NEW DIAGNOSTIC AND THERAPEUTIC TOOLS TARGETING CHOROICAL MECHANOBIOLOGY TO IMPROVE AMD MANAGEMENT. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020114.

NAME OF ORGANIZATION OR GOVERNMENT: WASHINGTON UNIVERSITY. (H) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY PHILIP RUZYCKI, PHD, ENTITLED: (M2020115) EFFECTS OF AMD RISK ALLELES ON THE INNATE IMMUNE SYSTEM. INVESTIGATOR'S SUMMARY: THIS PROJECT SEEKS TO UNDERSTAND THE GENETIC BASIS OF AGE-RELATED MACULAR DEGENERATION. BY LEVERAGING THE MOST INNOVATIVE GENOMIC TECHNIQUES AVAILABLE WE WILL HOPE TO GAIN INSIGHTS INTO BIOMARKERS FOR DISEASE PROGRESSION AND IDENTIFY NOVEL TARGETS FOR PREVENTATIVE THERAPEUTICS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020115.

NAME OF ORGANIZATION OR GOVERNMENT: WEST VIRGINIA UNIVERSITY RESEARCH CORP. (H) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY JIANHAI DU, PHD, ENTITLED: (M2020141) TARGETING PROLINE METABOLISM IN AMD. INVESTIGATOR'S SUMMARY: WE PREVIOUSLY REPORT THAT PROLINE, AN AMINO ACID, IS A CRITICAL NUTRIENT SOURCE FOR RETINAL PIGMENT EPITHELIUM (RPE) AND RETINA. WE FOUND SUPPLEMENTATION WITH PROLINE COULD PROTECT PHOTORECEPTOR DEGENERATION IN A MOUSE MODEL OF AGE-RELATED MACULAR DEGENERATION (AMD), AND RPE FROM AMD PATIENT DONORS HAVE POOR UTILIZATION OF PROLINE. IN THIS PROPOSAL, WE WILL TEST MECHANISMS FOR PROLINE UTILIZATION IN AMD AND INVESTIGATE APPROACHES TO RESCUE RPE

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DEFECT FROM AMD BY TARGETING PROLINE METABOLISM. FOR MORE INFORMATION,
VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020141.

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NAME OF ORGANIZATION OR GOVERNMENT: THE CITY COLLEGE OF CUNY. (H)

PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY MARK EMERSON, PHD,

ENTITLED: (M2020157) A SCREEN FOR CONE-PROMOTING FACTORS THAT CAN BE

USED TO REPLACE CONES LOST IN AMD. INVESTIGATOR'S SUMMARY: CONE

PHOTORECEPTORS ARE THE CRITICAL LIGHT SENSING SENSORY CELLS THAT ARE

LOST IN AGE-RELATED MACULAR DEGENERATION (AMD). ONE PROMISING

THERAPEUTIC STRATEGY WOULD BE TO PROMOTE THE FORMATION OF NEW CONE

PHOTORECEPTORS WITHIN THE RETINA TO REPLACE THOSE LOST TO DISEASE. THIS

PROJECT WILL USE HIGH-RESOLUTION MOLECULAR TECHNIQUES TO IDENTIFY THE

GENES NORMALLY FOUND IN FORMING CONE PHOTORECEPTORS THAT ARE SUFFICIENT

TO TURN OTHER RETINAL CELLS INTO CONES. THE IDENTIFICATION OF SUCH

GENES WILL BE PROVIDE THE FOUNDATION TO DEVELOP NEW CONE REPLACEMENT

THERAPIES FOR AMD. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE:

WWW.BRIGHTFOCUS.ORG/GRANT/M2020157.

NAME OF ORGANIZATION OR GOVERNMENT: TULANE UNIVERSITY. (H) PURPOSE OF

GRANT: MACULAR DEGENERATION RESEARCH BY SHUSHENG WANG, PHD, ENTITLED:

(M2020166) A CRISPR-BASED INDUCIBLE SYSTEM FOR VEGF REPRESSION FOR AMD.

INVESTIGATOR'S SUMMARY: CURRENT ANTI-VEGF MEDICINES FOR WET AGE-RELATED

MACULAR DEGENERATION (AMD) REQUIRE MULTIPLE INJECTIONS PER YEAR AND IS

NOT SATISFACTORY FOR WET AMD PATIENTS. WE AIM TO ESTABLISH A NOVEL

INDUCIBLE SYSTEM FOR VEGF REPRESSION FOR WET AMD. THIS SYSTEM COMBINES

POTENCY, REVERSIBILITY AND SAFETY, AND CAN BE USED TO TREAT AMD WITH

JUST ONE OCULAR INJECTION. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS

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WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020166.

NAME OF ORGANIZATION OR GOVERNMENT: DUKE UNIVERSITY. (H) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY PRIYATHAM METTU, MD, ENTITLED: (M2020168) REGULATION OF MACROPHAGE-MEDIATED NEOVASCULAR REMODELING IN NEOVASCULAR AMD. INVESTIGATOR'S SUMMARY: WET (OR NEOVASCULAR) AGE-RELATED MACULAR DEGENERATION (AMD), WHICH DEVELOPS WHEN AN ABNORMAL BLOOD VESSEL GROWS UNDER THE RETINA, IS THE LEADING CAUSE OF BLINDNESS IN THE ELDERLY. WHILE THERE ARE APPROVED TREATMENTSSHOTS OF MEDICINES INTO THE EYE TO STABILIZE THE ABNORMAL BLOOD VESSELAT LEAST 40% OF PATIENTS HAVE MORE SEVERE DISEASE THAT REMAINS ACTIVE AND CAUSES WORSENING VISION IN SPITE OF TREATMENT. WE PROPOSE THAT THE SEVERE FORM OF WET AMD IS CAUSED BY INFLAMMATORY CELLS CALLED MACROPHAGES AND HAVE IDENTIFIED A POTENTIAL NOVEL MOLECULAR TARGET THAT CONTROLS THE ACTIVITY OF THESE INFLAMMATORY CELLS. THE PURPOSE OF THIS PROJECT IS TO BETTER UNDERSTAND THIS MOLECULAR TARGET AND DETERMINE WHETHER MEDICINES THAT BLOCK THIS TARGET COULD BE EFFECTIVE NOVEL TREATMENTS FOR PATIENTS WITH WET AMD. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020168.

NAME OF ORGANIZATION OR GOVERNMENT: WILMER EYE INSTITUTE, JOHNS HOPKINS UNIVERSITY. (H) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY MALIA EDWARDS, PHD, ENTITLED: (M2020174) THE IMPACT OF SUBRETINAL GLIAL MEMBRANES IN GEOGRAPHIC ATROPHY. INVESTIGATOR'S SUMMARY: THIS PROPOSAL WILL TAKE A NOVEL APPROACH TO STUDYING THE PATHOLOGY OF GEOGRAPHIC ATROPHY BY INVESTIGATING THE ROLE OF GLIAL CELLS. THESE CELLS, TRADITIONALLY CONSIDERED ONLY SUPPORT CELLS, ARE ALTERED IN GEOGRAPHIC ATROPHY AND CREATE A MEMBRANE-LIKE STRUCTURE. THE PROPOSED STUDIES WILL

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INVESTIGATE HOW CHANGES TO THESE CELLS MAY INFLUENCE DISEASE PROGRESSION AND THE EFFECTIVENESS OF TREATMENTS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020174.

NAME OF ORGANIZATION OR GOVERNMENT: OKLAHOMA MEDICAL RESEARCH FOUNDATION. (H) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY WILLARD FREEMAN, PHD, ENTITLED: (M2020207) INDUCIBLE CELL-SPECIFIC MOUSE MODELS FOR PAIRED EPIGENETIC AND TRANSCRIPTOMIC STUDIES OF MICROGLIA AND MULLER GLIA IN AGE-RELATED MACULAR DEGENERATION.

INVESTIGATOR'S SUMMARY: AGING IS THE MAJOR RISK FACTOR FOR AGE-RELATED MACULAR DEGENERATION (AMD) BUT HOW AGING, ALONG WITH SEX, LEAD TO THE DEVELOPMENT OF THE DISEASE IS NOT UNDERSTOOD. DNA ALTERATIONS THAT DO NOT CHANGE GENETIC COMPOSITION, KNOWN AS EPIGENETIC MODIFICATIONS, ARE ABLE TO INFLUENCE GENE EXPRESSION. EPIGENETIC MODIFICATIONS, PRINCIPALLY METHYLATION (MC) AND HYDROXYMETHYLATION (HMC) OF THE DNA HAVE BEEN LINKED TO THE DEVELOPMENT/PROGRESSION OF AMD, BUT HOW THESE ALTERATIONS CHANGE WITH AGING AND SEX IN THE DIFFERENT CELL TYPES OF THE RETINA, INCLUDING MICROGLIA AND MULLER GLIA, IS NOT KNOWN. USING NOVEL MOUSE MODELS THAT ALLOW THE ISOLATION OF DNA AND RNA FROM SPECIFIC CELL TYPES, SPECIFIC AIM 1 AND SPECIFIC AIM 2 WILL EVALUATE MC AND HMC AND HOW SUCH MODIFICATION CORRELATE WITH GENE EXPRESSION AND RETINA FUNCTION/ACUITY SPECIFICALLY IN MICROGLIA AND MULLER CELLS, RESPECTIVELY, TAKING INTO ACCOUNT AGE AND SEX AS PARAMETERS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020207.

NAME OF ORGANIZATION OR GOVERNMENT: THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON. (H) PURPOSE OF GRANT: MACULAR DEGENERATION

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RESEARCH BY AMIR MOHSENIN, MD, PHD, ENTITLED: (M2020216) AGING AND
ADENOSINE IN NEOVASCULAR AGE-RELATED MACULAR DEGENERATION.

INVESTIGATOR'S SUMMARY: AGE-RELATED MACULAR DEGENERATION (AMD) IS THE
NUMBER ONE CAUSE OF BLINDNESS IN ADULTS GREATER THAN 60 YEARS OF AGE IN
THE UNITED STATES AND THE THIRD OVERALL CAUSE OF BLINDNESS WORLDWIDE.
THIS RESEARCH PROJECT WILL UTILIZE A MOUSE MODEL OF AMD TO INVESTIGATE
THE EFFECTS OF OLDER AGE ON ADENOSINE, A SIGNALING MOLECULE THAT IS
CAPABLE OF CONTROLLING THE VISION-THREATENING BLOOD VESSEL AND SCAR
TISSUE FORMATION SEEN IN ADVANCED DISEASE. DETERMINING THE AGE-RELATED
EFFECTS OF ADENOSINE IN AMD WILL NOT ONLY EXPAND OUR UNDERSTANDING OF
THE DISEASE MECHANISM BUT ALSO UNCOVER NOVEL THERAPEUTIC TARGETS THAT
CAN PREVENT VISION LOSS. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS
WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020216.

SCHEDULE I, PART II, LINE 1, COLUMN (H):

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF WASHINGTON. (H)

PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY JENNIFER CHAO, MD,
PHD, ENTITLED: (M2020217) RPE MODELING ON A PERFUSABLE MICROVESSEL

NETWORK. INVESTIGATOR'S SUMMARY: IN ORDER TO IDENTIFY NOVEL TARGETED

THERAPEUTICS FOR THE TREATMENT OF AGE-RELATED MACULAR DEGENERATION

(AMD) AND OTHER RPE-RELATED DISEASES, THERE IS A CRITICAL NEED TO

DEVELOP PHYSIOLOGICALLY RELEVANT MODELS FOR UNDERSTANDING DISEASE

PATHOLOGY. CURRENT APPROACHES TO MODELING RPE-RELATED DISEASES UTILIZE

CONVENTIONAL TWO-DIMENSIONAL SYSTEMS THAT DO NOT ACCURATELY

RECAPITULATE NORMAL RPE PHYSIOLOGY OR DISEASE STATES, IN PART, BECAUSE

THEY DO NOT INCLUDE THE UNDERLYING CIRCULATION OR CHOROIDAL

VASCULATURE. RECENT STUDIES IN AMD INCREASINGLY POINT TOWARD THE

IMPORTANCE OF THE CHOROID IN DISEASE DEVELOPMENT AND PROGRESSION. THE

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GOAL OF THIS PROPOSAL IS TO DEVELOP AND CHARACTERIZE A 3D FLOW-DIRECTED RPE-CHOROID SCAFFOLD SYSTEM THAT CAN BE USED AS A PLATFORM TO STUDY THE ESSENTIAL ELEMENTS OF RPE-RELATED DISEASES, SUCH AS EXTRACELLULAR MATRIX REMODELING, DRUSEN DEPOSITION, VASCULAR FLOW EFFECTS ON CHOROIDAL ENDOTHELIAL CELLS, AND VASCULAR PERMEABILITY TO MACROMOLECULES AND METABOLITES. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020217.

NAME OF ORGANIZATION OR GOVERNMENT: THE RESEARCH FOUNDATION FOR SUNY ON BEHALF OF UNIVERSITY AT BUFFALO. (H) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY AMY MILLEN, PHD, ENTITLED: (M2020227) INTERPLAY OF DIET AND THE GUT MICROBIOME IN AGE-RELATED MACULAR DEGENERATION. INVESTIGATOR'S SUMMARY: THE PROPOSED RESEARCH TO STUDY THE GUT MICROBIOME AS A MODIFIABLE RISK FACTOR FOR AGE-RELATED MACULAR DEGENERATION (AMD) IS RELEVANT TO PUBLIC HEALTH BECAUSE AMD IS THE LEADING CAUSE OF VISION LOSS IN THE U.S. USING DATA FROM THE CAROTENOIDS IN AGE-RELATED EYE DISEASE STUDY 2 (CAREDS2) OF POSTMENOPAUSAL WOMEN, WE PROPOSE TO CONDUCT ONE OF THE FIRST LARGE EPIDEMIOLOGIC STUDIES TO EXAMINE ASSOCIATIONS BETWEEN THE COMPOSITION AND DIVERSITY OF THE GUT MICROBIOME AND THE PREVALENCE AND STAGE OF AMD (NO AMD, INTERMEDIATE AMD, AND ADVANCED/VISION-THREATENING AMD). EVIDENCE OF A PROTECTIVE ASSOCIATION BETWEEN CERTAIN PROFILES OF THE GUT MICROBIOME CONTENT AND AMD COULD LEAD, IN THE LONG-TERM, TO EASILY IMPLEMENTED, LOW-COST INTERVENTIONS TO MODIFY THE GUT MICROBIOME WITH DIET, OR HIGHLIGHT POTENTIAL METABOLIC PATHWAYS FOR INTERVENTION, TO PREVENT AMD. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020227.

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NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF CALIFORNIA DAVIS SCHOOL OF MEDICINE. (H) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY GLENN YIU, MD, PHD, ENTITLED: (M2020247) CRISPR-BASED GENOME EDITING FOR TREATMENT OF NEOVASCULAR AMD IN THE NONHUMAN PRIMATE.

INVESTIGATOR'S SUMMARY: AGE-RELATED MACULAR DEGENERATION (AMD) IS A LEADING CAUSE OF BLINDNESS IN THE ELDERLY, BUT CURRENT TREATMENTS FOR THE "WET" FORM OF AMD RELY ON FREQUENT DRUG INJECTIONS INTO THE EYE THAT ARE EXPENSIVE AND A BURDEN FOR PATIENTS. THIS RESEARCH PROPOSAL WILL ADDRESS THIS HEALTHCARE CRISIS BY DEVELOPING A POTENTIAL CURE FOR WET AMD USING A POWERFUL GENE-EDITING TECHNOLOGY CALLED "CRISPR." THIS INNOVATIVE GENE-EDITING SYSTEM CAN PERMANENTLY CHANGE THE GENES THAT CAUSE WET AMD, AND CAN HOPEFULLY BE USED SOMEDAY TO SAVE THE VISION OF OUR AGING POPULATION. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020247.

NAME OF ORGANIZATION OR GOVERNMENT: THE NATIONAL INSTITUTES OF HEALTH/NATIONAL EYE INSTITUTE. (H) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY KAPIL BHARTI, PHD, ENTITLED: (M2020258) DISCOVERING MECHANISMS OF RPE/CHOROID DEGENERATION IN AMD USING 3D BIOPRINTED EYE TISSUE. INVESTIGATOR'S SUMMARY: THE ROLE OF RETINAL PIGMENT EPITHELIAL CELLS AND RETINAL BLOOD VESSELS IN THE PROGRESSION OF AGE-RELATED MACULAR DEGENERATION, A DISEASE THAT LEADS TO PROGRESSIVE VISION LOSS WITH AGE, ARE NOT FULLY UNDERSTOOD. THIS RESEARCH PROJECT USES 3D BIOPRINTED HUMAN TISSUE MODELS TO CLARIFY THE ROLE OF RETINAL BLOOD VESSELS IN INITIATING AND PROGRESSING MACULAR DEGENERATION. THE COMPLETION OF THIS PROJECT IS EXPECTED TO DETERMINE WHETHER THE RETINAL BLOOD VESSELS CAN BE EFFECTIVE THERAPEUTIC TARGETS FOR COUNTERING MACULAR DEGENERATION AND SUGGEST NOVEL THERAPEUTICS

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AGAINST THE DISEASE. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020258.

NAME OF ORGANIZATION OR GOVERNMENT: UNIVERSITY OF CALIFORNIA, IRVINE.

(H) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY DOROTA SKOWRONSKA-KRAWCZYK, PHD, ENTITLED: (M2020271) ROLE OF ELOVL2 IN AGE RELATED CHANGES IN THE EYE. INVESTIGATOR'S SUMMARY: WE ARE CHARACTERIZING THE ROLE OF A NEW PROTEIN WHICH IS INVOLVED IN PROCESSING LIPIDS, A PROCESS WHICH HAS LONG THOUGHT TO PLAY AN IMPORTANT ROLE IN MACULAR DEGENERATION. MICE WITHOUT FUNCTION OF THIS PROTEIN LOSE VISION AND DEVELOP LIPID DEPOSITS THAT ARE VERY SIMILAR TO THE DEPOSITS ONE SEES IN MACULAR DEGENERATION EYES. IN THIS STUDY, WE WILL EXPLORE THE RELATIONSHIP OF INFLAMMATION WITH THIS PROTEIN IN CREATING THESE LIPID DEPOSITS IN THE EYE AND WILL EXPLORE THE FUNCTION OF THIS PROTEIN IN HUMAN CELL LINES TO SEE WHETHER THIS CAN SERVE AS A CELL CULTURE MODEL OF MACULAR DEGENERATION. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020271.

NAME OF ORGANIZATION OR GOVERNMENT: THE JACKSON LABORATORY. (H) PURPOSE OF GRANT: MACULAR DEGENERATION RESEARCH BY JURGEN NAGGERT, MS, PHD, ENTITLED: (M2020284) EQTL BASED SELECTION OF GENETIC BACKGROUND FOR AMD MODELS. INVESTIGATOR'S SUMMARY: THIS PROPOSAL AIMS AT DEVELOPING HUMAN LIKE MOUSE MODEL THAT ALLOWS US TO DETERMINE THE FUNCTION OF HUMAN GENES THAT INCREASE THE RISK OF DEVELOPING AGE-RELATED MACULAR DEGENERATION (AMD). WE WILL DO THIS BY MEASURING GENE EXPRESSION IN THE RETINAS OF A MOUSE POPULATION THAT IS AS DIVERSE AS THE HUMAN POPULATION. WE WILL THEN USE THIS INFORMATION TO SELECT A MOUSE STRAIN THAT SHOWS A SIMILAR GENE EXPRESSION PATTERN AS HUMAN AMD PATIENTS AND

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WE PREDICT THAT HUMAN RISK GENES PLACED IN SUCH A MOUSE MODEL WILL LEAD TO EARLIER AND MORE HUMAN LIKE AMD DISEASE CHARACTERISTICS. THIS HAS THE POTENTIAL TO GREATLY FACILITATE DEVELOPMENT OF NEW TREATMENT STRATEGIES. FOR MORE INFORMATION, VISIT THE BRIGHTFOCUS WEBSITE: WWW.BRIGHTFOCUS.ORG/GRANT/M2020284.

NAME OF ORGANIZATION OR GOVERNMENT: RD MEETING INC. (H) PURPOSE OF GRANT: BY ENTITLED: CONFERENCE SUPPORT FOR ATTENDEES AT INTERNATIONAL SYMPOSIA ON RETINAL DEGENERATION.

NAME OF ORGANIZATION OR GOVERNMENT: ARVO FOUNDATION FOR EYE RESEARCH. (H) PURPOSE OF GRANT: BY ENTITLED: 2020 EYEFIND RESEARCH GRANT SPONSORSHIP.

NAME OF ORGANIZATION OR GOVERNMENT: ARVO FOUNDATION FOR EYE RESEARCH. (H) PURPOSE OF GRANT: BY ENTITLED: 2020 TRAVEL GRANTS FOR CONFERENCE ATTENDEES.

**SCHEDULE R
(Form 990)**

Department of the Treasury
Internal Revenue Service

Related Organizations and Unrelated Partnerships

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

▶ Go to www.irs.gov/Form990 for instructions and the latest information.

OMB No. 1545-0047

2019

Open to Public Inspection

Name of the organization **BRIGHTFOCUS FOUNDATION** Employer identification number **23-7337229**

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
NATIONAL DEVELOPMENT, LLC - 23-7337229 22512 GATEWAY CENTER DRIVE CLARKSBURG, MD 20871	PROPERTY RENTAL AND MANAGEMENT	MARYLAND	607,871.	4,137,029.	BRIGHTFOCUS FOUNDATION
AMERICAN HEALTH ASSISTANCE, LLC - 23-7337229 22512 GATEWAY CENTER DRIVE CLARKSBURG, MD 20871	OWNER OF BRIGHTFOCUS HEADQUARTERS	MARYLAND	0.	3,538,919.	BRIGHTFOCUS FOUNDATION

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

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

Schedule R (Form 990) 2019

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

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?

	Yes	No
a Receipt of (i) interest, (ii) annuities, (iii) royalties, or (iv) rent from a controlled entity	1a	
b Gift, grant, or capital contribution to related organization(s)	1b	
c Gift, grant, or capital contribution from related organization(s)	1c	
d Loans or loan guarantees to or for related organization(s)	1d	
e Loans or loan guarantees by related organization(s)	1e	
f Dividends from related organization(s)	1f	
g Sale of assets to related organization(s)	1g	
h Purchase of assets from related organization(s)	1h	
i Exchange of assets with related organization(s)	1i	
j Lease of facilities, equipment, or other assets to related organization(s)	1j	
k Lease of facilities, equipment, or other assets from related organization(s)	1k	
l Performance of services or membership or fundraising solicitations for related organization(s)	1l	
m Performance of services or membership or fundraising solicitations by related organization(s)	1m	
n Sharing of facilities, equipment, mailing lists, or other assets with related organization(s)	1n	
o Sharing of paid employees with related organization(s)	1o	
p Reimbursement paid to related organization(s) for expenses	1p	
q Reimbursement paid by related organization(s) for expenses	1q	
r Other transfer of cash or property to related organization(s)	1r	
s Other transfer of cash or property from related organization(s)	1s	

2 If the answer to any of the above is "Yes," see the instructions for information on who must complete this line, including covered relationships and transaction thresholds.

(a) Name of related organization	(b) Transaction type (a-s)	(c) Amount involved	(d) Method of determining amount involved
(1)			
(2)			
(3)			
(4)			
(5)			
(6)			

Part VII Supplemental Information

Provide additional information for responses to questions on Schedule R. See instructions.

Multiple horizontal lines for providing supplemental information.