

FALL 2013 (for FY14)



**BRIGHTFOCUS FOUNDATION  
MACULAR DEGENERATION RESEARCH AND  
NATIONAL GLAUCOMA RESEARCH  
AWARD APPLICATION INSTRUCTIONS**

**All applications must be submitted online through the application portal.**

**Please note that all deadlines are 11:59 PM EST (Washington, DC) on the day of the deadline.**

**Deadlines are posted at <http://www.brightfocus.org/research/apply/main.html>**

Questions or concerns that aren't addressed in the proposal instructions below or on the BrightFocus website, including the main research award page (<http://www.brightfocus.org/research/apply/main.html>) and the Frequently Asked Questions (<http://www.brightfocus.org/research/apply/faqs.html>), may be directed to a member of the research grants staff by telephone at 1-800-437-2423 or via email at [researchgrants@brightfocus.org](mailto:researchgrants@brightfocus.org).

The BrightFocus Foundation, formerly known as the American Health Assistance Foundation, is a 501(c)(3) nonprofit charitable organization supporting research and providing public education to help eradicate brain and eye diseases, including Alzheimer's disease, macular degeneration, and glaucoma. We are working to save mind and sight.

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## GUIDELINES IN BRIEF

The goal of the BrightFocus Foundation research grants program is to advance innovative research promoting advances in the etiology, prevention, and treatments of Alzheimer's disease, macular degeneration, and glaucoma. The Foundation is interested in supporting high risk studies that illuminate areas for which there currently is little understanding, helping to bring to light crucial knowledge about these three devastating diseases.

This is accomplished by relatively small grants for investigator-initiated research that are designed to allow scientists the opportunity to develop the preliminary data necessary to be considered competitive for larger government or corporate types of sponsorship. The focus of the program is on projects that, although associated with high risks, will offer high yields in terms of growth of the field. More incremental proposals, or proposals that might be easily funded through existing resources, are discouraged. While prior awardees are welcome to submit new proposals following the conclusion of the previously-sponsored project, the new proposals should not be extensions of the prior project.

The process is competitive amongst a high volume of applications. Although there is no formal requirement for initial data, applications presenting some amount of preliminary results are typically at an advantage over proposals that present no early data.

**Incomplete applications will be declined without review. You MUST complete ALL of the sections in your application.**

**All applications must be submitted through the BrightFocus SmartSimple submission website (<http://brightfocus.smartsimple.us>), and are divided into five parts:**

1. The "Research Proposal Document" (required)

This is a portable document format (PDF) file that you will create from the proposal template Word document that will be available for download through the BrightFocus online application process, after you have submitted responses to the required form fields on the submission website. Once downloaded, you will find that the Word document will be pre-populated with your proposal number, as well as some information derived from your responses to questions on the website. Letters of Support should be appended to the end of the document (see below). Prior to upload, this Word document must be converted to PDF. This PDF document is provided to peer-reviewers for purposes of evaluation.

2. Signature Page (required)

The template Word document will be available for download during the BrightFocus online application process. After obtaining the required signatures, please convert into PDF file and upload within two weeks after the application deadline.

3. Appendix Information (optional, but encouraged)

This class of supporting documents is generally a PDF file containing up to five "in press" or published manuscripts related to the proposal. This file should not contain supplementary data\*, or letters of support/collaboration. This file is provided to peer-reviewers for purposes of evaluation.

\*An exception is made for investigators submitting movie or sound files or similar data that cannot be represented efficiently in the research proposal. Video/audio files should be submitted in a file separate from the appendix containing the manuscripts. Please contact BrightFocus Research Grants staff member for more information on submitting these types of files.

4. Cover Letter (optional)
5. Letters of Support (required)

All of the Co-PI(s) and Collaborator(s) listed on the application must provide a letter. These letters should be appended to the end of your “Research Proposal Document.” The name and other requested information of each Co-PI or Collaborator should be listed in the section provided at the end of the Table of Contents and on the Face Page of the “Research Proposal Document.”

### **SUMMARY OF TERMS AND CONDITIONS:**

In order to be eligible for a BrightFocus grant:

- The Principal Investigator (PI) position on BrightFocus Standard Awards are open to tenure- and non-tenure track investigators of any career-stage who are **appropriately trained to lead an independent research study, and are permitted by their organizations to manage grants and supervise any key personnel.** Applicants should have completed their formal post-doctoral mentored research training, and must be the intellectual and creative leads for the proposed projects. The applicant should use the indicated space on the application forms to clarify any position that is not immediately recognizable as an independent research position. While no formal postdoctoral fellowship program exists for the MDR and NGR programs, BrightFocus provides the following mechanism to help postdoctoral fellows document successful funding histories. Postdoctoral Fellows may serve as a Co-PI on MDR and NGR Standard Award applications.
- Funds awarded are to be used solely for research. BrightFocus does not fund institutional overhead, capital equipment, or construction of buildings. Salary and benefits may be requested for the PI and Co-PI(s). The Principal Investigator salary request must be the lesser of 25% of the total grant request, or 25% of the individual’s salary. Co-PI salaries are capped at the lesser of 15% of the total grant request, or 15% of the individual’s salary. **Salary caps are imposed on the Principal Investigators and Co-Principal Investigators only.**
- BrightFocus will not fund proposals for which duplicate funding has been awarded and accepted, and will not fund portions of grants that are superfluous, irrelevant, or inconsistent with BrightFocus policies.
- All awardees will be required to submit yearly financial reports and scientific progress reports. Failure to supply the required reports will result in withholding of funds.
- Collaborators will be responsible for adhering to the project deadlines as set forth by the PI, submitting all required documentation for the completion of financial and progress reports, conducting research in good standard practices, and ensuring that measures are in place to protect human subjects and/or vertebrate animals in accordance with all relevant regulations.
- Investigators with active BrightFocus awards, or active BrightFocus awards held by another person within their larger laboratory group, are ineligible for concurrent BrightFocus support within the same disease program. Once the active award is closed, the investigator’s eligibility is restored. Investigators with an active BrightFocus award in a given program may apply for a BrightFocus award in another program. For example, an MDR awardee is not eligible for a concurrent MDR award, but may apply for concurrent support through the National Glaucoma Research (NGR) or Alzheimer’s Disease Research (ADR) programs.
- BrightFocus awards are open to basic science, translational, and/or clinical research collaborations. The awards are available to domestic and international researchers based in eligible institutions located in the United States and abroad, and for the support of collaborations between domestic and international groups.
- BrightFocus grants are awarded to universities, medical centers, and independent nonprofit research institutions. Grants are not made to individuals. In the event that a PI or collaborator changes employment during the funding period, BrightFocus should be notified immediately. Continuation of funding at the new institution cannot be guaranteed. Individuals at for-profit ventures may participate as collaborators on BrightFocus awards that have been made to non-profit institutions.

For more detailed information about the Terms and Conditions and Patent and Intellectual Property Contract that will apply if an application is successful, visit the BrightFocus website

(<http://www.brightfocus.org/research/apply/researchtermsconditions.html> for the Terms and Conditions, and

<http://www.brightfocus.org/research/apply/researchippolicy.html> for the Patent and Intellectual Property Policy). A copy of our Patent and Intellectual Property Contract is made available through the online application portal. We encourage each of our applicants to share this contract as early as possible in the application process with the technology transfer office of the applicant's university or research institute, so that the application and approval process can proceed smoothly for all.

### **REVIEW OF APPLICATIONS:**

BrightFocus uses a peer-review system to evaluate all applications. Submissions are evaluated and given a priority score by a Scientific Review Committee comprised of established scientists in fields related to the proposed research. The recommendations of the Scientific Review Committee are subject to final approval by the Board of Directors of BrightFocus. To ensure that BrightFocus is funding meritorious research proposals that have a high potential for success, the Board of Directors bases its funding decisions on the results of a formal, rigorous peer-review process.

Rosters of prior committees are published on the BrightFocus website at <http://www.brightfocus.org/research/apply/faqs.html>.

The final status of proposals will be communicated to applicants by mid-April. BrightFocus staff are not authorized to provide information on priority scores, ranking, or likelihood of funding of applications prior to official notification of applicants.

### **HUMAN/ANIMAL RESEARCH SUBJECTS:**

BrightFocus requires that the Principal Investigator, Co-Principal Investigator(s), all Collaborators, Consortium partners, or Sub-Contractors abide by BrightFocus policy regarding human subject and vertebrate animal research.

Research projects involving human subjects and/or vertebrate animals must meet or exceed standards required for United States of America federal government funding including all rules and regulations developed by the National Institutes of Health. If the proposed research will involve the use of human or vertebrate animal subjects, a signed release from the appropriate committee of the Grantee Institution must be provided to BrightFocus, to demonstrate approval of the proposed research protocol(s) before Grant Award funds are released. For research conducted in the U.S., this release is satisfied by IACUC or IRB approvals.

If the project is to be funded through an award to a foreign institution or through an individual fellowship award that will support activities at a foreign institution, BrightFocus requires a statement of compliance from the Grantee Institution that the activities will be conducted in accordance with all applicable local laws and regulations in the foreign country. Such foreign protocols must meet or exceed standards required for United States of America federal government funding for research projects.

### **PUBLIC EDUCATION:**

BrightFocus is a publicly-supported charitable organization funded by donor contributions and has an active public education program that informs donors and other interested individuals about the research we sponsor. Information provided to the public by BrightFocus may include the technical and non-technical titles of the project, the name and institutional affiliation of the Principal Investigator and Co-Principal Investigator(s), the amount of the award, and the non-technical project descriptions provided by the applicant. Therefore **any section of the application designated by BrightFocus as non-confidential should not be used to communicate confidential information.** The submission of the application shall be deemed consent of the applicant and affiliated Grantee Institution to the publication of this information, should a grant be awarded. Declined proposals will remain confidential in their entirety.

### **MULTIPLE SUBMISSIONS:**

Please submit only one proposal to any BrightFocus program in a given review cycle. Multiple submissions to a single program may be administratively declined at the discretion of BrightFocus. For example, it is permissible to submit one Alzheimer's Disease Research (ADR) proposal, one Macular Degeneration Research (MDR) proposal, and one National Glaucoma Research (NGR) proposal in the same review cycle, if you so choose. However, it would not be permissible to submit two proposals from the same PI or Co-PI to the ADR Standard and/or ADR Postdoctoral Fellowship award programs, or to submit two proposals to the MDR program, or to submit two proposals to the NGR program.

## **BRIGHTFOCUS FOUNDATION**

### **INSTRUCTIONS FOR ONLINE SUBMISSION**

You must use the online submission process which is accessed by clicking the blue arrow on the BrightFocus Apply for Grant Funding web page at: <http://www.brightfocus.org/research/apply/main.html>.

Once linked to the submission website, you will be prompted to register your organization. Upon doing so, a system-defined password will be emailed to you, along with a link to the application portal. To continue, click on the SmartSimple link provided (<http://brightfocus.smartsimple.us>) where you will be asked to change the system-defined password to one of your own choosing. Once the new password is created and submitted, you will be taken to the Application Portal where you will be given step-by-step instructions to proceed with the application process.

#### **FILE SIZES:**

The submission website will not permit uploads of greater than 10 MB of information for any single application.

In some cases, greater file sizes may be allowable, but must be approved at least one week prior to the deadline. Please contact a BrightFocus Research Grants staff member to discuss this.

#### **GENERAL FORMATTING GUIDELINES:**

Application documents should be submitted using the 8.5 inch x 11 inch (215.9 mm × 279.4 mm) letter size format. Margins should be set at no less than 3/4" on all sides. Please use Times New Roman font at a size no less than 11 points. The color of the narrative text should be black. Applications must be legible and written in English. Do not use jargon or unusual abbreviations.

The applicant is responsible for ensuring that the final submitted document adheres to all formatting and length limitation guidelines. A link to the formal proposal guidelines document is available in the Smart Simple application portal.

#### **LENGTH LIMITATIONS:**

Length limitations and word count limitations are specified in the application template and guidelines documents (located on this page) and are enforced during administrative review.

Length limitations are measured when the document is printed on 8.5 inch x 11 inch (215.9 mm × 279.4 mm) paper. Please note that A4 paper exceeds these specifications.

Tables, graphs, and photographs must be included within the section in which they are referenced. Text in figure legends, tables, or graphs, should be included in the word count.

The applicant is responsible for ensuring that the final submitted document adheres to all formatting and length limitation guidelines.

In order to provide all applicants an equal opportunity to present their ideas, **BrightFocus is obligated to administratively decline any proposal that violates the length limitations or formatting requirements.**

#### **SUBMISSION INSTRUCTIONS:**

The following files can be uploaded through the submission website. Please maintain consistent naming conventions when submitting your files.

Document	Naming Convention
Cover Letter (optional)	LASTNAME*_cover.pdf
Research Proposal Document (required)	LASTNAME*_researchplan.pdf
**Appendix (optional)	LASTNAME*_appendix.pdf
Signature Page (required)	LASTNAME*_signaturepage.pdf

\* “LASTNAME” should be replaced with the surname of the PI on the proposal.

\*\*Only one Appendix file should be submitted (exceptions are made for video supplements). Although up to 5 reprints are allowable, these should all be contained in a single PDF file for submission.

**APPLICATION URL:**

Please visit the <http://www.brightfocus.org/research/apply/main.html> page on our website. A link to the submission site will be available there.

If you experience difficulties, please contact BrightFocus at [researchgrants@brightfocus.org](mailto:researchgrants@brightfocus.org) or call 1-800-437-2423 and ask to speak with a representative of the Scientific Affairs Department.

**POST-SUBMISSION EDITS AND CORRECTIONS:**

You should save your proposal in **DRAFT** status until you have made all necessary edits and corrections. Once you **SUBMIT**, the proposal may no longer be changed. BrightFocus does not accept supplementary data following expirations of the submission deadline. The only edits allowable after the deadline are changes to administrative information such as email addresses and telephone numbers.

## BRIGHTFOCUS FOUNDATION

### INSTRUCTIONS FOR COMPLETION OF THE APPLICATION TEMPLATE

**Read these instructions completely and carefully.**

#### **GENERAL FORMATTING GUIDELINES:**

Application documents should be submitted using the 8.5 inch x 11 inch (215.9 mm × 279.4 mm) letter size format. Margins should be set at no less than 3/4" on all sides. Please use Times New Roman font at a size no less than 11 points. The color of the narrative text should be black. Applications must be legible and written in English. Do not use jargon or unusual abbreviations.

**Please construct the proposal under the assumption that, if printed, the proposal will be printed on 8.5" x 11" paper rather than A4, or other sized paper types.**

#### **FACE PAGE:**

##### 1. TITLE OF PROJECT:

Choose a title that is descriptive and specifically appropriate. Do not exceed 55 typewritten spaces. The title should not duplicate the title of any other funded project directed by the Principal Investigator or Co-Principal Investigators.

a. If this application is a revision from a previous year, please check the box that reads 'Yes'.

##### 2. TYPE OF APPLICATION:

Please indicate that this application is for Standard support.

##### 3. PRINCIPAL INVESTIGATOR:

a.- c. Give the name and highest earned academic and professional degrees and year earned of the one person who will be responsible for the scientific conduct of the proposed research and who will serve as the corresponding author. **List only one person.**

d. Title: If the Principal Investigator has more than one title, give the one most relevant to the proposed project.

Titles that are not intuitively identifiable as being that of a person who is trained and capable of leading an independent research effort should be clarified in the space provided at the bottom of the first page of the application. Traditionally, tenure track titles in the USA include Assistant, Associate or Full Professor. Non-tenure track titles vary significantly between institutions, but usually connote junior investigators who have completed post-doctoral training and have significant independence to pursue original research.

##### e. Affiliation:

- 1) the institution name
- 2) the department or laboratory (examples: Department of Biochemistry, Neuroscience Research Laboratory, etc.), and
- 3) a street address sufficient for postal or overnight courier delivery.

f. Phone: Provide a complete daytime telephone number and fax number for the Principal Investigator.

g. Email: Provide a complete Internet email address. *This will be your principal mode of contact with BrightFocus; therefore, please submit an address that you check on a regular basis.*

#### 4. CO-PI AND COLLABORATORS:

List the names, role (Co-PI or Collaborator), highest earned degrees, institutional affiliation, and email address of individuals who will be responsible for major portions of the proposed research.

**IMPORTANT: Each Co-PI or collaborator identified on item 4 of the face page should provide a signed Letter of Support summarizing their role in the proposed research and their compliance with all appropriate animal welfare and human subject requirements. This letter should certify that they have agreed to their role as proposed in the version of the application received by BrightFocus. This letter should be attached to the Research Proposal Document and noted in the Table of Contents of the Research Proposal Document.**

*Note: A single postdoctoral fellow may be listed as a Co-Principal Investigator on a Macular Degeneration Research (MDR) or National Glaucoma Research (NGR) proposal as long as the Postdoctoral Fellow remains under the mentorship and direct supervision of the named Principal Investigator. This Co-Principal Investigator may not be the successor of any award resulting from the proposal without approval of the BrightFocus Board of Directors. Please feel free to use the indicated space on the application forms (i.e. in the section titled "Face Page Notes" at the bottom of the Face Page of the Research Proposal Document) to explain your arrangements to BrightFocus staff and SRC peer-reviewers.*

**Expect your proposal to be administrative declined if you do not include the above letters.**

#### 5. VERTEBRATE ANIMALS:

If activities involving vertebrate animals are not planned at any time during the proposed project period, check the box beside "No." The remaining parts of item 5 are not applicable.

If activities involving vertebrate animals are planned at any time during the proposed project period, check the box beside "Yes." In the space indicated, insert the date of approval by the Institutional Animal Care and Use Committee (IACUC) of the proposed use of vertebrate animals and the Animal Welfare Assurance Number. If IACUC review is delayed beyond the submission of the application, enter "pending." Should the application be approved for funding, verification of IACUC approval will be required before funding begins. All supported research, including that of collaborators, must comply with U.S. Federal, and any applicable local, regulations regarding the use of vertebrate animals in research.

#### 6. HUMAN SUBJECTS:

If activities involving human subjects are not planned at any time during the proposed project period, check the box beside "No." The remaining parts of item 6 are not applicable.

If activities involving human subjects, whether or not exempt from Public Health Service (PHS) regulations, are planned at any time during the proposed project period, check the box beside "Yes." In the space indicated, insert the date of approval by the Institutional Review Board (IRB) of the proposed involvement of human subjects and the Assurance of Compliance number. If the planned activities involving human subjects are exempt, insert the exemption number(s) corresponding to one or more of the six exemption categories recognized by the PHS. If IRB review is delayed beyond the submission of the application, enter "pending." Should the application be approved for funding, verification of the exemption or IRB approval will be required before funding begins. All supported research, including that of collaborators, must comply with U.S. Federal, and any applicable local, regulations regarding the use of human subjects in research.

#### 7. PROJECT PERIOD:

Enter the start and end dates for the entire proposed project period.

**All awards should be listed to begin on July 1 of the year following the application deadline.**

**Maximum award durations are as follows:**

Macular Degeneration Research	Standard Award	2 years
National Glaucoma Research	Standard Award	2 years

**8. COSTS REQUESTED FOR THE ENTIRE PROJECT PERIOD:**

Enter the total costs for the entire project period. Payments will be released on a quarterly basis, evenly distributed throughout the award duration.

**Maximum award values are as follows:**

Macular Degeneration Research	Standard Award	\$80,000/yr (\$160,000 Total)
National Glaucoma Research	Standard Award	\$50,000/yr (\$100,000 Total)

In cases where BrightFocus must choose between funding projects that are of equivalent scientific merit, BrightFocus reserves the right to consider the value of the request as a criterion.

Peer-reviewers may recommend lower award values if only a portion of the proposal is deemed to be a priority for funding.

**9. APPLICANT ORGANIZATION:**

Enter the name, address, and telephone number of the one organization that will be legally and financially responsible for the conduct of activities to be supported by this award. Please use the full legal name of the Institution (*e.g., Regents of the University of Wisconsin, rather than Univ. Wisconsin, U. Wisc., or University of Wisconsin.*)

**10. TYPE OF ORGANIZATION:**

Check the appropriate description(s). BrightFocus provides grants to non-profit organizations only, including government sponsored research institutions. U.S. applicants should also provide the Federal Identification Number of the applicant organization. This number should be the 9 digit Employer Identification Number. Please note that BrightFocus awards are available to domestic and international researchers based in eligible institutions located in the United States and abroad, and for the support of collaborations between domestic and international groups.

**11. FINANCIAL OFFICIAL:**

Enter the name, title, and telephone number and address of the person or office to whom correspondence related to the financial matters should be addressed. Please note that International organizations will receive payments by wire transfer, while U.S. domestic payments are made via electronic Automated Clearinghouse (ACH) payments. BrightFocus cannot wire transfer payments domestically.

**12. INSTITUTIONAL OFFICIAL:**

Enter the name, title, telephone number, fax number, e-mail address and street address of the individual authorized to act for the applicant organization and to assume the obligations imposed by the conditions for this award. The signature of this person will be required.

**TECHNICAL ABSTRACT:**

State the objectives, hypotheses, and specific aims of the proposed research, along with a summary of the proposed research methods. This abstract is meant to serve as a succinct and accurate description of the proposed research when separated from the proposal. Please limit your response to less than 400 words.

**Reminder: This abstract is considered CONFIDENTIAL and will only be released for purposes of peer-review.**

**INNOVATIVE ASPECTS OF PROPOSED RESEARCH:**

State briefly and concisely what you consider to be most innovative about the proposed research or methodology. Limit your response to 3-5 sentences.

### **SPECIFIC AIMS AND BENCHMARKS ACHEIVEMENTS:**

For each numbered specific aim (and sub-aim) of your proposal, please provide 1-3 sentences describing the aim. These should be worded identically to their presentation in your research narrative.

For each specific aim, note the milestone or benchmark accomplishments that you will use to assess progress on this project. Please state the time period in which you expect to achieve these benchmarks. This statement will be referred to during future progress reporting if an award is made.

### **RELEVANCE OF PROPOSED RESEARCH TO DISEASE-BASED PROGRAM FOCUS:**

State briefly and concisely how the proposed research is relevant to determining the causes of or possible treatment or cure for Alzheimer's disease, macular degeneration or glaucoma. Limit your response to 3-5 sentences.

### **RESPONSE TO PRIOR CRITIQUES/CHANGES FROM PRIOR SUBMISSION:**

If you are resubmitting a proposal declined in the previous year, you may use a **single 8.5 inch x 11 inch page** to discuss changes between the prior submission and the present proposal.

### **RESEARCH PLAN:**

*Do not exceed the appropriate page limits/word counts. Proposals exceeding the stated maximums will be subject to dismissal without review. See below for limits.*

- A. Specific Aims.** State the objectives and the hypotheses to be tested and describe concisely and realistically what the specific research described in this application is intended to accomplish.
- B. Background and Significance.** Briefly summarize the background to the present proposal, critically evaluate existing knowledge, and specifically identify the gaps that the project is intended to fill. Concisely describe the importance of the proposed research by relating the specific aims to the objectives.
- C. Preliminary Studies.** Use this section to provide an account of the principal investigator's preliminary studies pertinent to the application and/or any other information that will help to establish the experience and competence of the investigator to pursue the proposed project.
- D. Experimental Design and Methods.** Outline the experimental design and the procedures that will be used to accomplish the specific aims of the project. Include the means by which the data will be collected, analyzed, and interpreted. Describe any new methodology and its advantage over existing methodologies. Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims. Provide a tentative sequence or timetable for the investigation, and detail the duties of each collaborator. Point out any procedures, situations, or materials that may be hazardous to personnel and precautions to be exercised.

#### **IMPORTANT:**

**Word Count Limitations on Research Plan Sections A-D** (literature cited is not included in word counts):

**Do not exceed the indicated maximum word counts. Please expect that proposals exceeding the stated maximums will be rejected (i.e. administratively declined) without review.**

Approximate page lengths are provided for general purposes only. Administrative review will be based on word counts.

Macular Degeneration Research	Standard Award	3500 words (~ 5 pages)
National Glaucoma Research	Standard Award	4200 words (~ 6 pages)

**Text associated with Tables, graphs, and photograph captions must be included within limit.**

Please note that the Table of Contents has a section in which you are requested to supply your estimate of the total word count for sections A-D.

**E. Literature Cited.** List literature citations at the end of the Research Plan. Each literature citation must include the names of all significant authors, the name of the book or journal, volume number, page numbers, and year of publication. Article titles should be provided. While there is no limit for this section, *Four pages is the recommended maximum page count for the literature cited section.*

**TRANSLATIONAL PLAN:**

The generosity of BrightFocus’ donors comes from a desire to eliminate human suffering. For some lines of research, this may imply progress towards clinical goals. For other lines, the human impact may be felt through influence on the academic field, policy guidance, or other more indirect outcomes. Assuming that your research aims are successful, what is your general administrative and experimental plan for advancing this line of inquiry to a point of relevance to sufferers of this disease? (limit: 250 words)

**HUMAN SUBJECTS/VERTEBRATE ANIMALS:**

Briefly and concisely describe how human subjects and/or vertebrate animals will be used in the proposed research. **If not applicable, insert the word “none” in the space provided.** The research plan should provide sufficient details in the proposal so that the use of animals or human subjects in the study can be properly evaluated. Protocols for research involving human subjects and/or vertebrate animals must meet or exceed standards required for Federal funding.

If the proposed research will involve the use of human or vertebrate animal subjects in the research, a signed release from the appropriate committee of the institution must be provided to demonstrate approval of protocol before grant funds are released. Similar releases should be provided for **ANY COLLABORATING INSTITUTION** that will engage in research that involves human subjects or vertebrate animals.

**STATEMENT REGARDING PROPRIETARY INTERESTS:**

State any proprietary interest or other actual or potential conflict of interest in the proposed research on the part of the Principal Investigator, Co-Principal Investigator(s), other key personnel, collaborators, or consultants. **If not applicable, insert the word “none” in the space provided.**

**KEY PERSONNEL:**

List all individuals, salaried and not salaried, including the Principal Investigator, Co-Principal Investigator(s), and Collaborators at the applicant institution or elsewhere, who will commit time to the scientific development/execution of this project. List their position title, role in the project, department, and organizational affiliation.

### **CONSULTANTS/COLLABORATORS:**

Identify any consultants or minor collaborators not identified in Face Page Item 4. **If not applicable, insert the word “none” in the space provided.**

### **CONSORTIUM/CONTRACTUAL ARRANGEMENTS:**

Provide a brief explanation of the programmatic, fiscal, and administrative arrangements made between the applicant organization and the collaborating organizations. **If not applicable, insert the word “none” in the space provided.**

### **DETAILED BUDGET:**

Prepare separate budgets for each year for which funding is requested. The total funds in the budget must not exceed the amount requested. **The budget may not contain administrative overhead or indirect costs**, and should be prepared in US dollars.

**Personnel:** The Principal investigator, Co-Principal Investigator(s), key investigators, and any support personnel (usually postdoctoral fellows, graduate students, or technicians) actively involved in research may request salary and benefits. Such requests should be justified and include indications of the percentage of time the personnel will devote to the proposed project (percent effort).

**Supplies:** The amount of money requested for supplies should be divided into major research supply categories (e.g., cell biology reagents, test fees, etc.). If animals are to be involved, the justification should state how many are to be used, their unit purchase price, and their unit care cost.

**Equipment:** Any major item of equipment valued over US\$1,000 should be specifically named in the budget. BrightFocus will not fund the purchase of large capital equipment. Requested equipment must be directly related to, and enabling of, the proposed research.

**Contractual Services:** The Budget should specify any major support services required under the proposed research, such as preparation or laboratory testing of biological materials. The justification should indicate the period of contractual service.

**Travel:** Travel must be relevant to the accomplishment of the project or dissemination of results of the supported research. The purpose of the travel and destination should be clearly indicated, justified, and may not include premium ticketing packages (i.e., first class or other luxury travel).

**Other:** Itemize any other expenses by category. This category is often used by investigators seeking funding to defray costs of publication or registration at conferences where the results of the proposed research are to be presented.

**NOTE REGARDING BUDGET CUTS:** When awards are offered, most budgets are approved as requested. However, in some cases BrightFocus may elect to make awards for only a portion of the requested budget. These decisions are made on the recommendations of peer reviewers and may manifest as an elimination of specific budget items, proposal aims, or percentage cuts off of the total award value.

**NOTE REGARDING OPEN ACCESS PUBLICATIONS:** BrightFocus does not require publication in specific journals or attendance at specific conferences. However, as a publicly-supported charity, BrightFocus recognizes the contribution of open-access model journals to the scientific community. BrightFocus grant applicants may request reasonable funds to allow publication in such journals.

### **BUDGET JUSTIFICATION:**

Provide justification for all salary requests, equipment purchases over \$1,000, animals, and supply categories. Provide a brief explanation of how the budget adequately supports the project described. Additional pages may be used, if necessary.

### **FACILITIES AND ENVIRONMENT:**

Briefly document the suitability of the available research facilities and academic environment for the execution of the proposed research. Do not list facilities that are irrelevant to the proposed research. Exceptional resources should be noted, but more common resources should be omitted or summarized generically.

### **OTHER SUPPORT:**

For each of the Principal Investigator and any Co-Principal Investigator(s), list in three separate groups: 1) all currently active support; 2) all applications and proposals pending review or funding; and 3) applications and proposals planned or being prepared for submission. Include all federal, non-federal, and institutional research, training, and other grant, contract, or fellowship support at the applicant organization and elsewhere. Explicitly, identify any grants that might scientifically or financially overlap with the BrightFocus proposal. **If no support is available or planned, please write “none” in the indicated space.**

Major collaborators should supply currently active and pending support only if that support might be considered to be overlapping the research being proposed to BrightFocus.

If part of a larger project, identify the Principal Investigator/Program Director and provide data for both the parent project and subproject.

For each item, give: a) the source of the support, identifying number, and title; b) percentage of appointment on the project; c) dates of entire project period; d) annual direct costs; and e) a brief description of the project.

The applicant(s) must certify whether or not the requested award from BrightFocus will overlap with any current or pending research funded by other granting organizations. If the requested support overlaps, duplicates, is being replaced by, or supplements the present application, please describe and justify the nature and extent of any scientific and/or budgetary overlaps. Further describe any modifications that will be made should the present application be funded.

### **CERTIFICATION OF FUNDING OVERLAP:**

BrightFocus defines funding overlap as a circumstance under which the proposed budget or scientific aims of a proposal is duplicative of the budget or scientific aims of a project funded by another source and led by the individuals responsible for the BrightFocus proposal. This overlap may be scientific, in which the duplication occurs in the specific aims of the research project, or financial, in which another funding source commits money for items documented in the BrightFocus proposed budget. Please check one of the boxes provided on the template. If there is overlap, then please make a list, and describe and justify the nature and extent of the scientific and/or budgetary overlap.

### **SUMMARY OF PREVIOUS BRIGHTFOCUS SUPPORT:**

Provide the grant title, years and amount of all grant support from the BrightFocus Foundation (this includes prior funding under our previous name, American Health Assistance Foundation (AHAF)). Provide a brief statement of research accomplishments and a reference to any publications resulting from the BrightFocus-sponsored research made under these award(s). **If not applicable, please write “none” in the indicated space.**

## **NON-TECHNICAL SUMMARY:**

In lay language, what is the "big picture" question that all of your specific aims are designed to address? Please use language that would be understandable by a 6th grade student. Limit your summary to no more than four sentences.

**Reminder: This non-technical summary is considered NON-CONFIDENTIAL and will be used for public educational purposes.**

## **BIOGRAPHICAL SKETCHES:**

Prepare a National Institutes of Health (NIH)-style biographical sketch on the Principal Investigator, Co-Principal Investigator, major Collaborators, and the other key research staff/personnel involved in the study. It is not necessary to include biosketches for technicians or support staff. List relevant training, professional experience, and publications. *Do not exceed two-pages for each investigator.*

## **LETTERS OF SUPPORT:**

Each Co-Principal Investigator or Collaborator identified on item 4 of the face page should provide a signed, single page Letter of Support summarizing their role in the proposed research. This letter should certify that they have agreed to their role, as proposed in the version of the application received by BrightFocus. These letters should also certify their compliance with any appropriate animal welfare or human subject regulations. The Letters should be appended to the end of the Research Proposal Document.

## **SIGNATURE PAGE:**

**The SIGNATURE PAGE should be separate from the main proposal file and should be uploaded as a PDF file. Applicants have two additional weeks beyond the due date to upload the signed Signature Page document. Please keep in mind that your application is not complete without this signed document.**

The proposal title and grant reference number should have been automatically filled after downloading a Word template document from the online program. Please check the box beside the program for which you're applying, and obtain the appropriate signatures.

### **PRINCIPAL INVESTIGATOR SIGNATURE:**

With this signature, the Principal Investigator agrees to accept the responsibility for the scientific conduct of the project and to provide the required progress reports if a grant is awarded as a result of this application.

### **INSTITUTIONAL OFFICIAL SIGNATURE:**

With this signature, the institutional official named in item 12 accepts on behalf of the institution the obligations incurred by acceptance of a grant if one is awarded as a result of this application.

### **FACULTY MENTOR(S) SIGNATURE(S) (FOR ADR POSTDOCTORAL FELLOWSHIPS ONLY):**

The person(s) supervising the training of the Principal Investigator of the proposal should sign here, if the Principal Investigator is a Postdoctoral Fellow or equivalent trainee.

## **APPENDIX:**

**The Appendix file should be separate from the main proposal file and should be submitted as a SINGLE PDF file containing each of the included publications or manuscripts. Please use the naming convention (LASTNAME\_appendix.PDF) for your appendix file, where "LASTNAME" is replaced with the surname of the PI on the proposal.**

Although submitted as a separate file, please list the contents of any appendix in the Table of Contents of the Research Proposal document. It is acceptable to add a hyperlink to the PubMed record for each entry on this list.

**Up to five relevant papers or manuscripts *published or accepted for publication* in refereed journals may be included, if necessary. The papers or manuscripts should be the PI's own work or that of a Co-PI or Collaborator named on this proposal. Although up to 5 reprints are allowable, these should all be contained in a single PDF file for submission.**

Reviewers are not required to consider appendix information. If the information that you wish to submit is essential to an evaluation of the application, incorporate it within the Research Proposal. The Appendix is *not* to be used for circumventing the page limitations in the Research Proposal.

**EXCEPTIONS:**

Unpublished video or sound files representing data that can't be presented in static images and that is pertinent to the proposal may be submitted as a separate Appendix file. The file size of such videos is counted in the file size restrictions described in the submission section of this document.

## **INFORMATION FOR APPLICANTS: REVIEW POLICIES AND PROCEDURES**

BrightFocus awards grants for research on the causes of, and preventions or treatments for the diseases specified by each of its disease programs (i.e., Alzheimer's disease, glaucoma, and macular degeneration). The Foundation is interested in supporting high risk studies that illuminate areas for which there currently is little understanding, helping to bring to light crucial knowledge about these three devastating diseases.

Grants are awarded on the basis of the scientific merit of the proposed research and the relevance of the research to improving our understanding of these diseases.

To ensure that BrightFocus is funding meritorious research proposals that have high potentials for success, the Board of Directors bases its final funding decisions on the results of a formal, rigorous, scientific peer-review process, taking program goals and the availability of funds into consideration.

A full description of the review process and outcomes is available at <http://www.brightfocus.org/research/apply/faqs.html>

### **GENERAL BRIGHTFOCUS REVIEW COMMITTEE PROCEDURES:**

BrightFocus recruits and maintains a Scientific Review Committee (SRC) for each of the three research programs. These committees are comprised of established investigators with the appropriate expertise to provide constructive and equitable evaluations of grant applications. These individuals serve as volunteers, but are provided with a small honorarium for the time and effort they put into the review process. Almost all serve on NIH study sections or review committees for other foundations. A roster of individuals having served on each committee in the preceding five years is available at the website noted above.

The BrightFocus Research Grants Department, in consultation with the Chairman of each Scientific Review Committee, assigns each full-length proposal to a primary and secondary reviewer (for MDR and NGR), and tertiary reviewer (for ADR) based on the expertise of the reviewers and the research area(s) of the proposal. In some cases, a tertiary reader is also assigned for MDR and NGR proposals. All proposals are checked against the pool of available reviewers for real or potential conflicts of interest prior to assignment of the proposal to individual reviewers.

Reviewers are required to decline assigned applications for which they do not have the appropriate expertise and must decline to review applications in which they have a real or potential conflict of interest. These applications are reassigned to other reviewers.

Reviewers may not participate on a committee in any review cycle in which they themselves have submitted a proposal for consideration.

Reviewers are required to keep the information presented in grant applications and the deliberations of the Scientific Review Committee strictly confidential. It is the responsibility of the BrightFocus Research Grants Department to communicate with applicants regarding the results of the review process and to serve as the intermediary between the Reviewers and the applicant.

### **REVIEW CRITERIA AND PRIORITY SCORE RANKING:**

The BrightFocus Scientific Review Committee (SRC) uses the National Institutes of Health (NIH)'s 9-point scale to assess the overall impact score of each grant application, and to provide a priority score ranking recommending applications for funding to the BrightFocus Board of Directors. Ratings are in whole

numbers only (no decimal ratings), where 5 is considered an average score. Please note that FY15 is the first year that the BrightFocus SRC will use the 9-point scale, replacing the previous NIH 5-point scale.

<b>Overall ImpactScore</b>	<b>Descriptor</b>	<b>Additional Guidance on Strengths/Weaknesses</b>	
High	1	Exceptional	Exceptionally strong with essentially no weaknesses
	2	Outstanding	Extremely strong with negligible weaknesses
	3	Excellent	Very strong with only some minor weaknesses
Medium	4	Very Good	Strong, but with numerous minor weaknesses
	5	Good	Strong, but with at least one moderate weakness
	6	Satisfactory	Some strengths, but also some moderate weaknesses
Low	7	Fair	Some strengths, but with at least one major weakness
	8	Marginal	A few strengths and a few major weaknesses
	9	Poor	Very few strengths and numerous major weaknesses

Reviewers are instructed to take the following criteria into consideration when reviewing grants:

**1. Significance/Relevance to Alzheimer’s disease, macular degeneration, and/or glaucoma:**

Does the project address an important problem or a critical barrier to progress, and contribute significantly to current knowledge regarding the etiology, diagnosis, or treatment of Alzheimer’s disease, macular degeneration, and/or glaucoma? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

**2. Investigator(s)**

Are the PIs, Co-PIs, collaborators, and other researchers well suited to the project? If they are early-stage investigators, do they have appropriate experience and training? If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)? If the project is collaborative or has Co-PI(s), do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?

**3. Innovation**

Does the application challenge and seek to shift current research or clinical practice paradigms by using novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?

**4. Approach**

Does the investigator have a clear hypothesis and specific aims? Are the methods clearly explained and appropriate? Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed? If the project involves clinical research, are the plans for 1) protection of human subjects from research risks, and 2) inclusion of minorities and members of both sexes/genders, as well as the inclusion of children, justified in terms of the scientific goals and research strategy proposed? Has the investigator satisfactorily addressed issues or concerns regarding appropriate care and treatment of laboratory animals? Can the research proposed be accomplished in the time period of the grant?

**5. Facilities and Environment**

Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?

**6. Budget and Period of Support**

Are the budget and the requested period of support fully justified and reasonable in relation to the proposed research?

**REVIEW RESULTS:**

Applicants will be notified of the Board of Director's decision concerning their application by mid-April. BrightFocus staff are not authorized to provide information on priority scores, ranking, or likelihood of funding of applications prior to written notification of applicants. Please do not write or telephone BrightFocus to request such information.