



**POSTDOCTORAL FELLOWSHIP PROGRAM IN MACULAR DEGENERATION RESEARCH**

**A PROGRAM OF BRIGHTFOCUS FOUNDATION**

**Letter of Intent Guidelines**

**Due by 5:00 PM EST (Washington, D.C.)**

**Scope**

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. Our vision is to help people live free from diseases of mind and sight. 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.

The BrightFocus funding mechanisms are designed to provide initial funding for highly innovative experimental ideas, including interdisciplinary investigations that may apply to two or three of the above-mentioned diseases. Most of the awardees use the BrightFocus donor award money to demonstrate key findings that lead to later interest and additional funding from industrial or governmental funding agencies. BrightFocus prefers not to fund projects for which substantial resources already exist, or that may already be competitive for governmental or industrial support.

**Overview**

This Macular Degeneration Research Fellowship is intended to support young postdoctoral researchers during their final stages of mentored training. The award provides salary support for a young scientist to conduct postdoctoral studies in an established laboratory focused on research contributing to understanding the biological causes and/or new clinical treatment of macular degeneration. The specific research proposed in the application should be focused on some aspect of research that will have an impact on understanding or treating macular degeneration and should also serve as the basis for the applicant's own independent research career.

Award Amount: \$100,000 per year (total value \$200,000)

Duration: 2 years

**Description**

This fellowship is intended to support postdoctoral training of basic or clinician-scientists who are within no more than 4 years of their terminal degree, or within two years after completion of their final clinical training, at the time of application. The application for this fellowship must be written by the intended fellow in conjunction with the mentor/laboratory head where the fellowship will be conducted. The application should be submitted through the business office of the institution where the fellowship will take place. Should the fellowship support be funded, the awardee, mentor and institution should agree that this award is for support of the fellow and not for the mentor directing the research.

This award is intended to support the fellow's salary, health insurance and travel to attend a scientific meeting each year to present BrightFocus-funded research. Any remaining funds not expended for the purposes stated in the previous sentence must be used to fund supplies, technician salary support, or other items essential for the research described in the application.

The application must be accompanied by a letter from the head of the laboratory where the fellow will train, stating that laboratory space and additional research funds are available to support the project if the award is funded by BrightFocus.

### **Eligibility**

Specific eligibility criteria include:

- Candidates must hold an MD, PhD, DVM, DO, OD or equivalent degree received no more than four years before the time of application. For clinician scientists, this application should be submitted within two years after completion of their final clinical training. Exceptions to the above four-year and two-year eligibility period will be considered under unusual circumstances. Candidates must submit a written exception request to BrightFocus and obtain approval before applying
- Applicant may apply for this fellowship before completing their terminal degree, if they have a firm commitment from the laboratory head in which training will take place, and the applicant is the main author of the application
- Fellowship may be performed in a non-profit, governmental, academic research institution, or at a for-profit including start-up and biotech institution
- Previous recipients of this award are not eligible

### **General Guidelines**

- Submit your Letter of Intent using the template provided in the application portal
- Use Times New Roman font at a size no less than 11 points
- Use margins no less than 3/4" on all sides
- The color of the narrative text should be black
- Applications must be legible and written in English
- Do not use jargons or unusual abbreviations
- Maximum character and/or page counts for individual sections will be enforced.
- File size cannot exceed greater than 10 MB of information

### **New Guidelines for Certain Reagents and Techniques:**

### **RPE cultures used in research proposals:**

Because the RPE is a primary tissue target in AMD, BrightFocus frequently receives applications that request support for studies that rely entirely or in part on tissue culture preparations to model the RPE. The review committee has been critical of proposals that solely rely on ARPE-19 cells, due in part to the fact that this spontaneously transformed cell line does not have the full range of RPE-specific features when not cultured for sufficient time to allow for epithelial differentiation. However, if epithelial mesenchymal transformation (EMT) is being examined in the context of AMD, alternative culture protocols may be justified. Multiple methods are now available for generating fully differentiated RPE cultures using cells isolated from fetal and adult eyes, or differentiated from induced stem cells. Whatever model is chosen, we expect the applicant to fully justify the choice(s) and to provide evidence that the model used has well differentiated RPE-specific characteristics. Validation of results using multiple models is encouraged. Each human RPE line or iPSC line proposed for use in a BrightFocus application must be screened for the statistically-significant AMD risk SNP's in the CFH, C2, C3 and ARMS2/HTRA1 loci.

### **Human Samples and Human Subjects used in research proposals:**

Applicants submitting research proposals to BrightFocus that use human tissues or propose patient-based AMD analysis should include genetic testing for AMD genetic risk loci. This includes studies that involve individuals, human samples, and/or human-derived cells or tissues. Even if the studies proposed are not contingent on analysis of genetic variants, it is important that data generated from BrightFocus research funds be suitable for collaborative and meta-analysis studies in the future. Genetic screening should at a minimum include the statistically-significant risk SNP's in the CFH, C2, C3 and ARMS2/HTRA1 loci. Such genetic testing is now available from several clinical laboratories. Funding in the current and future review cycles of each BrightFocus grant will be contingent on evidence that the genotyping will/has been done and that this genetic data is included in publications resulting from BrightFocus funding making it available to other investigators.

### **VIEW SLIDESHARE VIDEOS FROM BRIGHTFOCUS MACULAR FAST TRACK 2021:**

BrightFocus organized and sponsored the inaugural BrightFocus Macular Fast Track workshop in September 2021 which was an immersive learning opportunity specifically created for scientists who are starting or contemplating a career in macular degeneration research. Please visit our website for the program and links to view recordings of the presentations, which include insights into the current state of macular degeneration research, specifically in reference to animal models and techniques (<https://science.brightfocus.org/event/macular-fast-track>)

### **Submission Instructions**

All applications must be completed through our online portal. To access the application portal, click on the text "application portal to apply online" on the BrightFocus website at: <http://brightfocus.org/research/apply/main.html>, where you will be taken to a registration and login page.

**You MUST complete ALL of the sections in your application.** Applications that are incomplete or fail to adhere to formatting instructions **will be DECLINED without review.**

### **Section 1**

#### **Title Page**

This section of the application asks for Project Title (maximum 150 characters), Keywords (provide up to 5 keywords for this application), Project duration, Project budget (total award amount requested), if this is a resubmission of proposal declined in the previous year, please indicate and provide a response to prior critique/ changes from previous submission (maximum 1250 characters), and information on submission of this application to other granting organization.

## **Section 2**

### **Download Templates and Instructions**

This section contains Research Plan and Biographical Sketch that are required to complete, or which might be necessary for the full submission of your application. You **MUST** use the “Research Plan” template provided in this section for submission.

## **Section 3**

### **Enable Other Users to Access this Proposal**

This section is used specifically for providing access rights to other people whom you may wish to have access to your application. You may choose their access as “View” or “Edit.” If you give someone “Edit” ability they can upload documents or add attachments in your absence. If you mark an individual as “Auto Notify” this means each time an email is sent to you through proposalCENTRAL, that person will automatically receive a copy of the email.

## **Section 4**

### **Applicant/PI**

This section of the application asks for the Principal Investigator’s information. All fields that are marked with asterisk (\*) are required fields. If you already have a professional profile within proposalCENTRAL, these fields will be automatically populated and filled in. Please review them carefully to confirm the information is correct.

## **Section 5**

### **Institution**

This section contains the information of the “Lead Institution.” This page defaults to the institution of the Principal Investigator. If the institution is incorrect, you may click on the “Change Institution” button and search for the correct institution.

## **Section 6**

### **Key Personnel**

ALL personnel working, collaborating, over-seeing or coordinating on the project **MUST** be listed in this section. This section should also include all collaborators and consultants. You will need to insert their email address in the space provided and click “Add.” Complete all required fields and click “Save” when completed. This person will now appear in the “Key Personnel” window.

## **Section 7**

### **Sponsor/Mentor Letter**

A letter of support from the Sponsor/Mentor in who’s lab the fellowship will be conducted is required in each application. Once you have input the email address of the Sponsor/Mentor an email is generated from proposalCENTRAL to the Sponsor/Mentor with specific instructions on how to provide this letter of support.

These are blind letters and not sent to the applicant for uploading. It is up to the applicant to make sure the letters are uploaded by the Sponsor/Mentor prior to the Validation stage. The letter from the Sponsor/Mentor must include the items below and should be no longer than two pages in length. The Sponsor/Mentor letter must be signed and submitted through proposalCENTRAL to be included as a part of the application.

#### **A. Research Support Available**

In a table, the Sponsor/Mentor should list all current and pending research and training support specifically available in the laboratory during the period of the proposed postdoctoral training. Include funding source, title of the research or training program, and name of the principal investigator, dates and total direct costs of the award. If the mentor's research support will end prior to the end of the proposed training period, the mentor should provide evidence that sufficient funds will be available to support the applicant's research. The role of the mentor in the integrated research and development plans should be described. Also, a statement as to how often the Sponsor/Mentor will be available for discussions with the applicant if a fellowship award is forthcoming.

#### **B. Applicant's Qualifications and Potential for an Independent Research Career**

Describe how the applicant is suited for this research training opportunity based on his/her academic record and research experience, including how the individual research training plan and your own expertise as the mentor will help this researcher establish an independent research career. Also indicate the names, current positions, and locations of trainees that the Sponsor/Mentor has trained as post-doctoral fellows in the past.

#### **C. Other Educational Opportunities available in the Sponsor/Mentors Department/Institution that will enrich the applicant's post-doctoral experience.**

Describe the availability of other collegial activities in the department/institution that will be available for the applicant to participate in should this fellowship be awarded. Provide details of additional seminar programs, didactic instruction programs that are available for the applicant in the department/institution where the research will be conducted.

### **Section 8**

#### **Specific Aims (2400 characters maximum):**

Please number and list the proposed 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. Please note that this section should not include figures, tables, photographs, or other non-text information.

#### **Research Category**

Please select the Research Category appropriate to the proposed project. BrightFocus does not weight its funding preferentially towards or against any of the listed categories. Your choices will not influence the likelihood of funding. Responses to the fields are used to aid in the selection of appropriate reviewers for the proposal.

#### **Conflict of Interest Self-Report**

Depending on the breadth of expertise required to review the applications received in the present review cycle, a subset of the listed researchers may serve on the review committee that evaluates your proposal. For the present review cycle, please note that additional reviewers may be brought onto the review committee if additional expertise is required. Referring to the list provided, please select any individuals with whom the PI of this proposal has any conflict (co-published within preceding 3 years, co-employed or a recent trainee).

### **Section 9**

#### **Conflict of Interest Self-Report**

If you declared conflicts on the preceding page, list each reviewer by last name and indicate the type of conflict (co-published within preceding 3 years, co-employed or a recent trainee).

## **Section 10**

### **Organization Assurance**

Please indicate 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.

## **Section 11**

### **Required Attachments**

#### **Proposed Research (two-page maximum, 8.5" x 11" page with 3/4" margins, 11 pt Times New Roman font):**

This must include a description of the objectives and hypothesis, as well as a summarized version of the experimental design and any preliminary results. This award is intended to foster exceptionally creative projects. Please include a statement addressing what you believe to be innovative about the proposed research, and how the project will benefit the age-related macular degeneration field. Please include the origins of major non-commercial reagents for the study, predicted sample sizes, and power calculations, where appropriate. Tables, graphs, and photographs may be included, but are considered to contribute to the page limitations. You may delete this instruction paragraph in the Proposed Research section to obtain maximum space for your response(s).

#### **Literature Cited: (single page maximum, 8.5" x 11" page with 3/4" margins, 11 pt Times New Roman font):**

The Research Plan should not exceed 3 pages when printed on 8.5" x 11" paper. After completing please convert your Letter of Intent Research Plan to a text-accessible pdf file format, save it as "lastname\_LOI\_Fellowship\_FY24.pdf" where 'lastname' is the surname of the Principal Investigator, and upload onto the online portal.

### **Principal Investigator Biographical Sketch:**

Provide a Biographical Sketch for the Principal Investigator and mentors in a single pdf. You may replace this section with a NIH Biosketch already in your possession.

## **Section 12**

### **PI Data Sheet**

The information in this section is not mandatory and is only for the use of BrightFocus Foundation for applicant statistics.

## **Section 13**

### **Validate**

AFTER you have validated the document, you MUST click "SUBMIT" for the application to be submitted. Validating the document DOES NOT submit the application to BrightFocus Foundation. Proceed to Section 14 for Submitting the application.

### **Reviews:**

Letters of Intent are reviewed and scored on the basis of scientific merit and relevance to the treatment and prevention of age-related macular degeneration. Each proposal is examined by 3-5 reviewers, who are themselves active researchers in the field. A roster of the pool of reviewers currently used by BrightFocus is available at

<https://www.brightfocus.org/grants/frequently-asked-questions#mdr3>. 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. A full description of the review process and outcomes is available at <https://www.brightfocus.org/grants/frequently-asked-questions#mdr3>

**Notification:**

Written critiques will not be provided during the Letter of Intent stage. The deadline for the full submission is described on the BrightFocus website <http://www.brightfocus.org/research/apply/main.html>. You will be notified in the beginning of September as to whether your Letter of Intent will result in an invitation to submit a full application. Notifications are sent via email.

**Contact Information**

If you have any questions regarding the program, please contact the BrightFocus scientific affairs department at [researchgrants@brightfocus.org](mailto:researchgrants@brightfocus.org).

If you have any difficulties with the application portal, please contact proposalCENTRAL at [pcsupport@altum.com](mailto:pcsupport@altum.com) or during normal business hour (8:30am - 5:00pm Eastern Time, Monday through Friday) by phone (toll-free): 800 875 2562 (Toll-free U.S. and Canada) or +1 703 964 5840 (Direct Dial International).