

Scientific Grants and Awards Programs

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SCIENTIFIC GRANTS AND AWARDS PROGRAMS

**Individual Investigator
Research Award****Alan Laties Career
Development Program
Award****Brint Family Translational
Research Award****Postdoctoral Fellowship
Award**

Overview

The Foundation Fighting Blindness' Grants and Awards Programs annually support basic, laboratory-based early translational, clinical studies, and pre-clinical research applicable to a broad range of inherited retinal degenerative diseases. The goal is to find the causes, preventions, treatments, and cures for retinitis pigmentosa, macular degeneration, and the entire spectrum of retinal degenerative diseases.

The Foundation has identified six (6) Research Priority Areas that align with our mission. Awards are made through a competitive funding mechanism. Only those proposals of the highest scientific merit that will advance the goals and objectives of the Foundation Fighting Blindness are considered for funding.

- Genetic Technologies
- Restorative Therapies
- Novel Medical Therapies
- Clinical: Structure and Function
- Genetics
- Cell and Molecular Mechanisms of Disease

The Foundation encourages individuals and teams from all scientific disciplines that have ideas geared toward eliminating inherited retinal degenerative diseases to apply to a grant or award program. **Individuals from underrepresented racial, ethnic and gender groups, as well as individuals with disabilities, are always encouraged to apply.**

Timetable of Application Deadlines

Award	LOI Deadline	Application Deadline
Clinical/Research Fellowship Award	Not Required	10/15/2026
Brint Family Translational Research Award	6/18/2026	10/22/2026
Career Development Award	Not Required	1/28/2027
Individual Investigator Research Award	10/8/2026	2/25/2027
Postdoctoral Fellowship Award	10/8/2026	2/25/2027

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Research Priority Areas

The Foundation Fighting Blindness supports research that contributes to preventions and interventions of inherited retinal diseases (IRDs) and atrophic (dry) age-related macular degeneration (AMD).

One or more of the six research priority areas below should be addressed in proposals submitted to the Foundation's award programs:

Genetic Technologies

Objective: To develop viral and non-viral delivery system(s) for genes and complex constructs (e.g editing tools, mRNA and proteins), and the development of RNA editing techniques.

Applications that target the following areas are of interest:

- Improve gene therapy delivery methods by
 1. understanding the hurdles associated with gene delivery by subretinal injection, intravitreal injection, suprachoroidal, and subconjunctival injection, and develop tools to overcome them
 2. develop non-viral delivery tools (e.g., lipid nanoparticles)
 3. develop alternative viral vectors (in addition to AAV)
- Develop tools for effectively and efficiently transducing all relevant retinal cell types (e.g., cell-specific plasmids, novel capsids) that permit improved control of expression levels
- Implement strategies for delivering complex constructs (large DNA, gene editing tools, mRNA, or protein)
- Advance RNA editing techniques
- Establish metrics by which the efficiency of delivery (viral or non-viral) and the efficiency of editing (DNA/RNA) can be quantified and measured across delivery platforms
- Understand the impact of gene augmentation in a diseased retina
- Develop standardized methods for quantifying vector genomes and total protein that can be compared among groups/studies, including analysis of dose-response effects on treatment efficacy and toxicity.
- Develop manufacturing techniques that are affordable/scalable



Restorative Therapies (includes cell-based approaches, visual prosthetics and optogenetics)

Objective: To restore sight after photoreceptor loss by strategies to rescue or replace degenerating or dead retinal cells, optimize visual prostheses, and develop optogenetic strategies to confer light sensitivity to neuronal cells in the absence of fully functional photoreceptors.

Applications that target the following areas are of interest:

- Optimize cell transplantation by identifying the best preparation and purification methods for donor tissue, determining how to enhance cell survival and function, and establishing the necessary immune suppression regimen.
- Improve understanding of transplanted cells by studying the role of biomaterials, measuring the function of donor RPE and photoreceptors after transplantation, and assessing the importance of cytoplasmic transfer versus transplant survival.

- Optimize optogenetic approaches by identifying the best non-photoreceptor cell for optimal outcomes
- Evaluate the potential of visual prostheses, including understanding how these therapies interact with remaining retinal cells and circuitry.

Novel Medical Therapies

Objective: To support research directed toward developing drugs to retain retinal function and structure in retinal degenerative diseases, including better functional testing of drug effectiveness, and novel drug delivery systems.

Applications that target the following areas are of interest:

- Develop and optimize models for high throughput screening and drug repurposing.
- Assess and improve therapeutic approaches by examining therapies that enhance cellular metabolism.
- Overcome challenges in therapy development for complex genetic IRDs and optimize delivery systems for efficacy and reduced toxicity.
- Identify and utilize non-invasive methods for tracking disease progression and therapeutic benefit.
- Understand the role of the microbiome in IRDs and explores if targeting the microbiome (e.g., antibiotics, bacterial consortia) can alter the disease course.
- Identify and develop gene-independent and gene-agnostic approaches based on common mechanisms of degeneration.
- Identify non-drug therapies (e.g. red light) to treat IRDs.
- Develop non-invasive delivery modalities (topical or systemic), especially for IRDs with early onset of disease.



Clinical: Structure and Function

Objective: Develop improved technology and standardized processes to establish relationships between clinical retina function and retina structure in retinal degenerative diseases and to enable early disease detection, utilizing the Foundation's Clinical Consortium to expand patient populations and expedite clinical trials.

Applications that target the following areas are of interest:

- Develop outcome variables for clinical trials, including functional testing, retinal imaging, and candidate surrogate endpoints.
- Develop clinical procedures to help diagnose and phenotype patients with IRDs.
- Conduct multimodal studies to link function to underlying pathology.
- Understand the role of inflammation in IRDs and efforts to control inflammation after genetic or stem cell therapies.
- Utilize imaging, psychophysics, and electrophysiology to understand mechanism of loss in specific mutations.
- Understand the causes and prevention of CME in IRDs Understand relationships between rod and cone loss in IRDs.
- Understand the role of the RPE in IRDs.

Genetics

Objective: To improve abilities to identify disease-causing mutations in inherited retinal disorders, in part by integrating comprehensive genetic testing into routine clinical care. To identify inherited risk factors for age-related macular degeneration (AMD) and the relative contributions of associated genetic and non-genetic factors (e.g., lifestyle), sufficient to use such knowledge in developing treatments and preventions.

Applications that target the following areas are of interest:

- Identify disease-causing genotypes in unsolved IRD cases, including the role of non-coding mutations, mosaicism, and various forms of inheritance.
- Classify pathogenic variants of uncertain significance in IRD genes using novel analytic methods, including AI-assisted modeling.
- Understand factors contributing to clinical variation in patients with identical disease-causing genotypes, such as genetic, environmental, and lifestyle factors.
- Promote inclusion of underrepresented populations in clinical trials to address research gaps and provide direct benefits to all affected individuals.

Cell and Molecular Mechanisms of Disease

Objective: To improve our understanding of the nature and cause of disease in inherited retinal degenerations so that improved therapies for the prevention of vision loss can be developed.

Applications that target the following areas are of interest:

- Identify shared mechanisms and pathways across IRDs and between IRD and AMD for gene agnostic approaches.
- Determine the genes that modify IRD phenotypes and how their activity can be modulated to affect disease pathophysiology.
- Improve the generation and characterization of organoids and animal models to better model the macula.
- Utilize spatial-omics approaches for a better understanding of the macula and other topological heterogeneity in the retina.
- Identify biomarkers that can predict disease onset and monitor disease progression and determine if they are shared or unique based on genotype.
- Enhance access to fresh AMD tissue and RP donor tissue to improve understanding of disease mechanisms.
- Understand the role of nuclear and mitochondrial DNA damage in IRD pathophysiology and how it can be targeted to ameliorate disease phenotypes.



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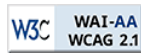
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