

## Placing You at the Core for a Cure

2014 ANNUAL REPORT

Alzheimer's Disease Research  
Macular Degeneration Research  
National Glaucoma Research



**BrightFocus®  
Foundation**

Cure in Mind. Cure in Sight.

## DEAR FRIENDS

In 2014—the first full year of our new name and re-branding—BrightFocus broke new ground by expanding our support for innovative, cutting-edge research on diseases of mind and sight. We are educating more families than ever before, and forging new partnerships with research and advocacy groups.

This year BrightFocus awarded \$8.7 million in research grants across our three science programs—Alzheimer's disease, macular degeneration, and glaucoma. This is a bold reflection of our commitment to be a catalyst for finding cures.

The research we support pushes the frontier of new discovery, providing the foundation on which life-saving breakthroughs and medical revolutions are built. Most of the scientists we sponsor go on to receive funding from other sources—including National Institutes of Health—that is on average 10 times greater than our original support, an affirmation of our mission to be on the forefront of science. BrightFocus funding has led to the awarding of two Nobel prizes.

# FOCUS

**Filling the void  
in early-stage  
research.**

**Alzheimer's Disease Research  
Macular Degeneration Research  
National Glaucoma Research**

We are promoting our educational resources to wider audiences. Through social media and our website, we have greatly expanded the reach of our patient and caregiver-oriented materials, including a broad portfolio of audio and video files. BrightFocus Chats, our new series of free monthly telephone forums, allows people across the country to interact with leading experts and learn the latest on treatment and prevention.

More research is desperately needed to accelerate cures for the diseases that rob the mind and sight of our loved ones. Americans may be living longer, but often at a diminished quality of life. Baby boomers are predicted to soon overwhelm our health system, our economy, and our caregivers. As one in 16 Americans age 40 and above suffers from Alzheimer's disease, macular degeneration, or glaucoma, we must act now.

BrightFocus has awarded more than \$140 million in research over the last four decades, with more than \$35 million awarded in the last five years alone. Working together, we must sustain and strengthen our commitment to scientific discovery. We must ensure that no promising path is ever blocked or shortchanged.

To our many donors and volunteers, thank you for your trust and support. Your generous commitment to save mind and sight is making a difference in the lives of people today and for generations to come.



**BrightFocus®  
Foundation**

Cure in Mind. Cure in Sight.

**Stacy Pagos Haller**  
President and CEO

**Grace Frisone**  
Chairman of the Board



## OUR MISSION

BrightFocus Foundation seeks to save mind and sight by funding innovative research worldwide and by promoting better health. We envision a world where everyone lives with clarity, grace, and good health.

## CONTENTS

Leadership Letter	2
Alzheimer's Disease Research	4
Macular Degeneration Research	6
National Glaucoma Research	8
2014 Research Grantees	10
Scientific Review Committee	13
Ways to Give	15
Heritage Society Members	16
Financial Highlights	18
Board & Leadership	19

D A W N O F  
DISCOVERY

**United by  
our passion  
to solve a  
complex,  
deadly puzzle.**

**A**lzheimer's disease is the most common form of dementia affecting more than five million Americans. It is a progressive, terminal brain disorder that has no known cause or cure. It slowly steals the minds of its victims, leading to memory loss, confusion, and the inability to communicate.

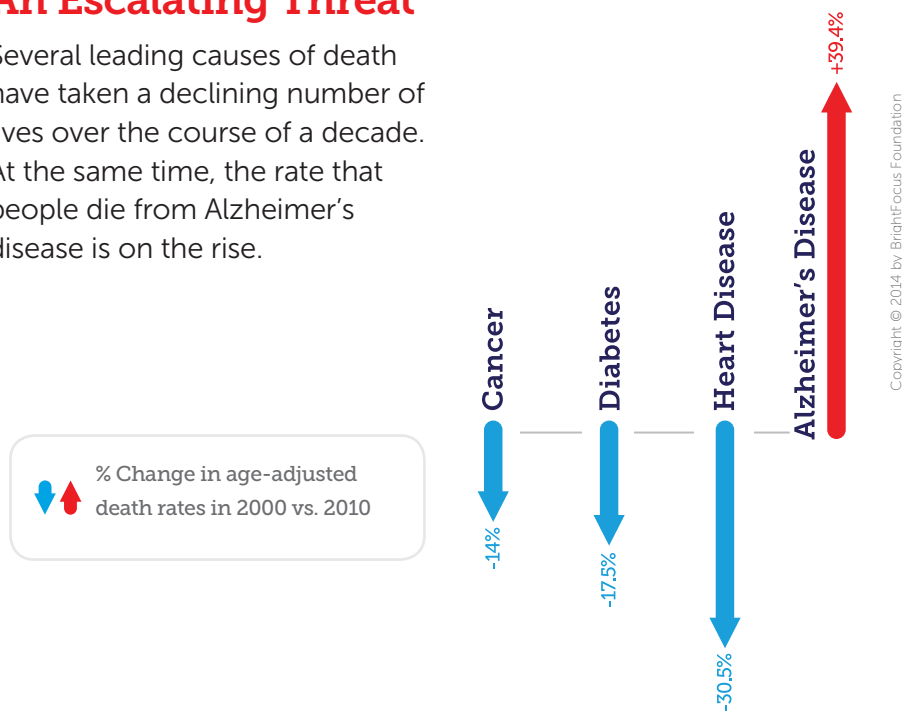
The need for a cure is more urgent than ever. By 2050, the number of Alzheimer's cases is expected to triple, reaching epidemic proportions. A recent study by researchers at Rush University in Chicago suggests Alzheimer's may be responsible for more than 500,000 deaths each year—more than five times greater than the number of deaths reported by the Centers for Disease Control.

This year, Alzheimer's Disease Research awarded \$5.2 million to 28 new research projects. Since inception, the program has awarded 510 grants totaling more than \$87.7 million. This research has resulted in a greater understanding of the disease and has moved us closer to a cure.

We are committed to accelerating scientific progress by awarding more grants and by increasing awareness of the disease. We have intensified our outreach to the public, patients, and caregivers, providing timely information on research, risk factors, symptoms, and coping strategies.

## An Escalating Threat

Several leading causes of death have taken a declining number of lives over the course of a decade. At the same time, the rate that people die from Alzheimer's disease is on the rise.



## RESEARCH SPOTLIGHT

### Tal Nuriel, PhD: The Challenge of Our Lifetimes



Tal Nuriel, PhD, has only distant memories of his maternal grandmother as a silent old woman in a nursing home staring off into the distance. A more

vivid recollection is his mother's emotional state after a visit to her mother, who suffered from Alzheimer's disease.

"I still remember the sadness my mom experienced during those visits to the nursing home and the pain she felt from caring for a mother who no longer recognized her own child," said Dr. Nuriel. Today, he is acutely aware of his mother's fear that she, too, will develop the disease.

Dr. Nuriel, a research fellow at the Columbia University Medical Center, will use his BrightFocus grant to study the apolipoprotein E gene, specifically apoE, which is prevalent in Alzheimer's patients. His team will measure lipids and small molecules in mouse and human brain tissues containing different forms of apoE to learn why carriers of the gene are at risk.

Dr. Nuriel says he probably had "delusions of grandeur" about finding a cure and saving his mother from Alzheimer's starting out in his career. Now he has come to appreciate the complexity of the disease and the enormous challenge it poses.

"The more difficult the challenge, the more important it is to remember all of the sons and daughters, the mothers and fathers, who are depending on the outcomes of our work."

## EXPANDING OUR REACH

### Strategic Partnerships and Thought Leadership

In its role as a founding member of the 21<sup>st</sup> Century BrainTrust (21CBT), BrightFocus was instrumental in the launch of the Geoffrey Beene Global NeuroDiscovery Challenge—a global search for research proposals to identify gender differences in Alzheimer's disease.

21CBT funded the \$50,000 first place prize, which was awarded to Enrico Glaab, PhD, of the University of Luxembourg. He will examine whether the USP9Y gene may protect men from Alzheimer's disease and explain the increased risks for women.

BrightFocus participated in TEDMED's *Preparing for the Dementia Tsunami*—an online discussion with thought leaders from various backgrounds. BrightFocus CEO Stacy Pagos Haller wrote in the *Huffington Post* that the federal 12-year brain mapping initiative, Brain Research through Advancing Innovative Neurotechnologies<sup>SM</sup> (BRAIN), can "unlock the door to new hope and understanding."



# HOPE FOR POSITIVE OUTCOMES

**Driven by our  
clear vision  
of a brighter  
future.**

**M**acular degeneration is the leading cause of vision loss in people age 60 and older. Those affected by macular degeneration find daily activities, such as driving and reading, increasingly difficult and use low-vision aids to support daily activities.

With Americans living longer, the risk of macular degeneration—which increases with age—takes on a new importance. The number of people living with macular degeneration is the equivalent of those who have been diagnosed with all types of cancer. Today, approximately 11 million people in the United States have some form of age-related macular degeneration. This number is expected to double to nearly 22 million by 2050.

This year, Macular Degeneration Research awarded 16 new research grants totaling more than \$1.9 million. Since its inception, the program has awarded 159 grants, totaling more than \$15.8 million supporting research into the causes and potential treatments of this incurable disease.

In addition to identifying and funding early-stage and clinical research, BrightFocus is engaged in aggressive campaigns to raise awareness of macular degeneration's life-altering toll and inform the public about prevention and detection strategies.

## Save Your Sight from Macular Degeneration

Macular degeneration affects the retina, a paper-thin tissue lining the back of the eye, and causes the cells in the macula area to die. This may result in blind spots and distorted vision.



Normal Macula



Advanced Macular Degeneration

## A DONOR'S STORY

### Verne Ann Goeppinger: Investing in a Brighter Future

Verne Ann Goeppinger may suffer from low eyesight due to macular degeneration, but her moral clarity is undiminished. She has been a BrightFocus donor since 2005 and contributes to all three programs with the money she has after paying her living expenses.

The 94-year-old lives in an independent living community in North Dakota and knows older people who juggle medical appointments and procedures as they struggle with age-related diseases. "My hope is to find cures in the near future," she

says. "Without cures, the treatments just go on forever."

She has been on the cutting-edge of treatment for macular degeneration, receiving photodynamic therapy prior to its approval by the FDA in 2000. She keeps current on research through BrightFocus and other resources.

Mrs. Goeppinger has spent much of her life in pursuit of the American Experience. She and her husband, Bill, lived in California and traveled the United States

visiting every state in the union during retirement, taking two trips a year for 21 years.

"It was a wonderful life," she says.



Verne Ann Goeppinger and her husband, Bill.

## ENGAGING THE PUBLIC

### Promoting Eye Health and Prevention

Although there is no cure for macular degeneration, there is evidence that lifestyle choices, like smoking and poor nutrition, can increase risk of the development of the disease. In addition, early detection and treatment may prevent your eyesight from getting worse.

The BrightFocus Foundation is dedicated to getting accurate, timely information to the public. This year, BrightFocus launched a monthly series of telephone "chats" with health experts who take questions from call participants. Topics have included learning the early signs of the disease and helping those with low vision live independently.

"Patients and loved ones have many unanswered questions and fears, but there is not enough time to address them all in the doctor's office," said Stacy Pagos Haller, BrightFocus President and CEO. "The BrightFocus Chat series is here to help."

BrightFocus also promotes good eye health and disease detection through community-based presentations, social media, and a broad range of print and digital educational materials.



BrightFocus produced a series of videos for Healthy Vision Month in May. Above, Vice President of Scientific Affairs Dr. Guy Eakin discusses the top five questions you should ask your doctor regarding your macular degeneration diagnosis.



NATIONAL GLAUCOMA RESEARCH

# A S P E C T R U M O F INNOVATION

**Committed to  
filling the gaps  
in current  
research.**

**G**laucoma is the leading cause of irreversible blindness in the world. It is a group of eye disorders that eventually lead to optic nerve damage, which can eventually result in vision loss or complete blindness.

The two major forms of glaucoma are open-angle and angle-closure. Open-angle is the most common form and affects approximately 95 percent of those living with glaucoma. It progresses very slowly until the individual begins to lose side (peripheral) vision. In addition to angle-closure, other forms of glaucoma include normal-tension, juvenile, and secondary.

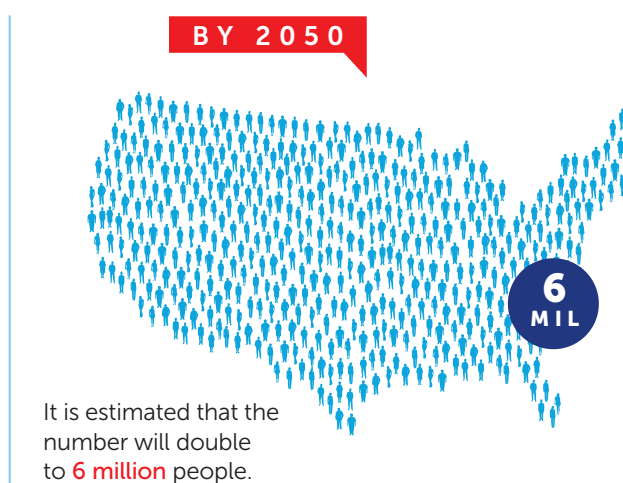
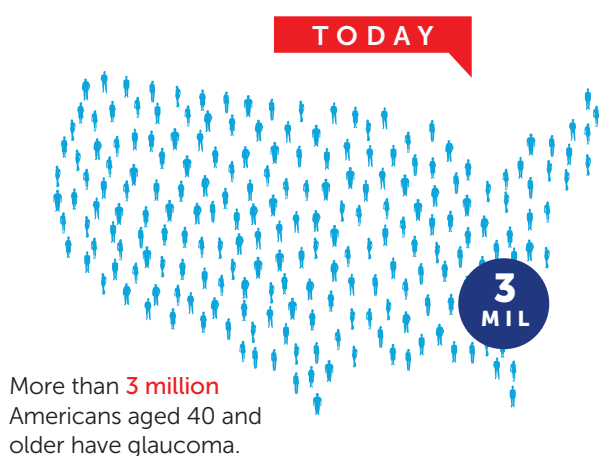
This year, National Glaucoma Research awarded 15 new research grants totaling more than \$1.5 million. The program has awarded 344 research projects totaling more than \$24 million since 1979.

Although there is no cure for glaucoma, early detection is key since the disease can be treated to help individuals maintain vision. Until glaucoma is eradicated, BrightFocus will remain engaged in national campaigns that promote eye-healthy lifestyles, early detection, new research, and useful information on living with low vision.



## Save Your Sight from Glaucoma

More than 3 million Americans aged 40 and older have glaucoma. By 2050, it is estimated that the number will double to 6 million people.



## RESEARCH SPOTLIGHT

### Baojian Fan, MD, PhD: Genetics as a Roadmap to a Cure



Baojian Fan, MD, PhD, has dedicated himself to understanding the genetic basis of glaucoma and other eye disorders. While other students took

their MD degrees and set out to become physicians, Dr. Fan pursued a PhD degree in ophthalmic genetics.

"Understanding the genetic basis of glaucoma will provide critical information about the biology of the disease and provide the basis for early diagnosis and new treatment," says Dr. Fan, an instructor in ophthalmology at Harvard Medical School. "It may ultimately prevent patients with glaucoma from going blind."

Dr. Fan will study pigment dispersion syndrome (PDS), which causes pigmentary glaucoma, a common form of open-angle glaucoma that usually affects young adults and can be inherited. His team will use a powerful new tool called "whole exome sequencing" to identify the gene responsible for pigmentary glaucoma so new diagnostic tools and treatments can be developed.

Fan's longer-term goal is to bring together professionals in ophthalmology, genetics, epidemiology, biostatistics, and bioinformatics to cure eye disease.

"A collaborative effort of this kind is necessary to answer one of our greatest scientific challenges," he says.

## LIFESTYLE CHOICES

### *Eating Well to Live Well*

Maintaining a healthy lifestyle is important for people living with glaucoma, as well as those at risk of developing the disease. That includes exercise and eating healthy. There are some vitamins and minerals that are believed to support brain and eye health, such as carotenoids (including lutein and zeaxanthin), antioxidants (such as vitamins C and E), vitamins A and D, zinc, and omega-3 fatty acids.

BrightFocus Foundation celebrated Healthy Aging Month in September by sponsoring a healthy recipe contest. All recipes were required to contain two ingredients believed to promote brain and eye health. The contest—as well as other public affairs initiatives—was largely promoted through social media channels like Facebook and Twitter.

It's another example of how BrightFocus is finding new ways to engage the public and promote prevention.



# 2014 BrightFocus Grant Recipients

Most grant awards last two years and will run until June 2016, while awards marked with an asterisk (\*) will run until June 2017. Collectively these contribute to a \$17.7 million research portfolio of more than 200 awards managed during fiscal year 2014.

## ALZHEIMER'S DISEASE RESEARCH

### **Katrin Andreasson, MD\***

*Preventing and Treating Alzheimer's Disease by Inhibiting Tryptophan Metabolism*  
Stanford University  
\$ 250,000

### **Randall Bateman, MD\***

*A New Method to Measure Tau Kinetics in Humans with Alzheimer's Disease*  
Washington University School of Medicine (St. Louis)  
\$ 250,000

### **Michal Schnaider Beeri, PhD\***

*Blood Vessel Function in Cognitive Impairment with Diabetes*  
Sheba Medical Center; Interdisciplinary Center (Israel)  
The Icahn School of Medicine at Mount Sinai (New York)  
\$ 250,000

### **David Brody, MD, PhD\***

*Purifying the Most Toxic Forms of Beta Amyloid from the Brains of Patients with Alzheimer's Disease*  
Washington University School of Medicine (St. Louis)  
\$ 250,000

### **Virginie Buggia-Prevot, PhD**

*Understanding the Role of Novel Endocytic Proteins in Alzheimer's Disease Pathogenesis*  
University of Chicago  
\$ 120,000

### **Steven Estus, PhD\***

*Genetics Pinpoint a Mechanism by Which a Leukemia Drug May Reduce Alzheimer's Risk*  
University of Kentucky  
\$ 105,000

### **Kristen Funk, PhD**

*Distinguishing Tau Uptake by Different Cell Types in the Brain*  
Washington University School of Medicine (St. Louis)  
\$ 120,000

### **Jing Guo, PhD**

*Replicating the Spread of Tau Tangles in Healthy Mice*  
University of Pennsylvania School of Medicine (Philadelphia)  
\$ 120,000

### **Gail Johnson, PhD\***

*Stimulating Nerve Cells to Dispose of Unwanted Tau Protein*  
University of Rochester Medical Center  
\$ 250,000

### **Brian Kraemer, PhD\***

*Deconstructing the Dopamine/Abnormal Tau Relationship in Alzheimer's Disease*  
Seattle Institute for Biomedical and Clinical Research  
\$ 250,000

### **Alice Lepelley, PhD**

*A New Way to Efficiently Prevent Oxidative Stress in the Brain*  
Columbia University Medical Center  
\$ 120,000

### **Harry LeVine, III, PhD\***

*Identifying the Type of Neuron Accumulating Amyloid in Early Alzheimer's Disease*  
University of Kentucky  
\$ 244,926

### **Yona Levites, PhD\***

*A Novel Immunotherapy Approach to Target Alzheimer's Disease*  
University of Florida  
\$ 248,009

### **Jian Li, PhD**

*Protection Against Alzheimer's Disease-Associated Toxicity by Integrated Stress Response Pathways*  
Northwestern University  
\$ 120,000

**Chien-liang Lin, PhD\***  
*Regulating Glutamate Levels as a Therapeutic Strategy for AD*  
The Ohio State University Research Foundation  
\$ 2 5 0 , 0 0 0

**Elena Marcello, PhD**  
*A New Pharmacological Target for Alzheimer's Disease*  
University of Milan  
\$ 1 2 0 , 0 0 0

**Richard Morrison, PhD\***  
*Restoring a Novel Multifunctional Protein in Neurons to Enhance Cognitive Function in Alzheimer's Disease*  
University of Washington School of Medicine (Seattle)  
\$ 1 9 5 , 0 0 0

**M. Paul Murphy, MA, PhD\***  
*A Novel Therapy for Alzheimer's-Associated Dementia with Cerebrovascular Comorbidity*  
University of Kentucky  
\$ 2 5 0 , 0 0 0

**Tal Nuriel, PhD**  
*Using Emerging Technologies to Identify the Effects of ApoE in the Brain*  
Columbia University Medical Center  
\$ 1 2 0 , 0 0 0

**Rik Ossenkoppele, PhD**  
*Testing the Amyloid Cascade Hypothesis In Humans Using a Novel Tau PET Tracer*  
Alzheimer Center of the VU University Medical Center (Netherlands)  
\$ 1 2 0 , 0 0 0

**Richard Perrin, MD PhD\***  
*New Ways to Detect, Monitor, and Predict Early Alzheimer's with Spinal Fluid*  
Washington University School of Medicine (St. Louis)  
\$ 2 5 0 , 0 0 0

**Carlos Saura, PhD\***  
*Genetic Mechanisms Underlying Memory Loss in Alzheimer's Disease*  
Universitat Autònoma de Barcelona (Spain)  
\$ 2 4 9 , 0 0 0

**Mitsuru Shinohara, PhD**  
*Synaptic Regulation of Beta Amyloid Metabolism and Associated Biomarkers in Body Fluids*  
Mayo Clinic (Jacksonville)  
\$ 1 2 0 , 0 0 0

**Hongmin Wang, PhD\***  
*Using Genetically Modified Mice to Study the Role of Ubiquilin-1 in Alzheimer's Disease*  
University of South Dakota  
\$ 2 5 0 , 0 0 0

**Guilian Xu, PhD\***  
*Are There Global Changes in Protein Metabolism with Alzheimer's Disease and Do These Changes Affect Cognition?*  
University of Florida  
\$ 2 4 9 , 7 0 3

## NATIONAL GLAUCOMA RESEARCH

**Yiqin Du, MD, PhD**  
*Cell Therapy in a Mouse Model with Increased Eye Pressure*  
University of Pittsburgh  
\$ 1 0 0 , 0 0 0

**Baojian Fan, MD, PhD**  
*Finding Genes that Cause Pigment Dispersion Syndrome and Pigmentary Glaucoma*  
Massachusetts Eye and Ear Infirmary (Boston)  
\$ 1 0 0 , 0 0 0

**Jeff Gidday, PhD**  
*Glaucoma Protection by Repeated Adaptive Stress*  
Washington University School of Medicine (St. Louis)  
\$ 1 0 0 , 0 0 0

**Douglas Gould, PhD**  
*Identification of Novel Mechanisms Responsible for Developmental Glaucoma*  
The Regents of the University of California (San Francisco)  
\$ 1 0 0 , 0 0 0

**David Mackey, MD**  
*New Ways of Imaging the Optic Nerve to Find Genes That Predispose to Glaucoma*  
Lions Eye Institute (Australia)  
\$ 9 9 , 5 5 0

**Colleen McDowell, PhD**  
[The Dr. Douglas H. Johnson Award for Glaucoma Research](#)  
*A Novel Pathway that Regulates Glaucomatous Changes in the Drainage Structures of the Eye*  
University of North Texas Health Science Center (Fort Worth)  
\$ 1 0 0 , 0 0 0

**Stuart McKinnon, MD, PhD**  
*Determining the Role of Lymphocytes in Glaucoma*  
Duke University Eye Center  
\$ 5 0 , 0 0 0

**Chris Passaglia, PhD**  
[The Thomas R. Lee Award for Glaucoma Research](#)  
*A System for Measuring and Controlling Eye Pressure*  
University of South Florida (Tampa)  
\$ 1 0 0 , 0 0 0

**Donna Peters, PhD**  
*A New Method to Prevent the Formation of Extracellular Matrix Proteins*  
Board of Regents of the University of Wisconsin System (Madison)  
\$ 1 0 0 , 0 0 0

**Lyne Racette, PhD**  
*A New Way to Predict and Monitor Progression in Glaucoma*  
Indiana University School of Medicine (Indianapolis)  
\$ 1 0 0 , 0 0 0

**Dhirendra Singh, PhD**  
*Uncovering Oxidation- and Age-Related Pathogenetic Signaling in Trabecular Meshwork*  
University of Nebraska Medical Center (Omaha)  
\$ 9 8 , 7 2 7

**Janice Vranka, PhD**  
*Targeted Disruption of Components Involved in Aqueous Humor Outflow Resistance Using an Organ Culture System*  
Oregon Health and Science University (Portland)  
\$ 1 0 0 , 0 0 0

**Lin Wang, MD, PhD**  
*A New Role for Astrocytes in Blood Flow Control*  
Legacy Health System (Portland)  
\$ 5 0 , 0 0 0

**Derek Welsbie, MD, PhD**  
*A Novel Approach to Treating Glaucoma by Inhibiting Dual Leucine Zipper Kinase, a Key Mediator of Nerve Cell Death*  
Johns Hopkins University  
\$ 1 0 0 , 0 0 0

# 2014 BrightFocus Grant Recipients

(continued)

## MACULAR DEGENERATION RESEARCH

### Imran Bhutto, MD, PhD

*The Inflammatory Cells of the Choroid in Age-Related Macular Degeneration*

Wilmer Eye Institute (Baltimore)

\$120,000

### Michael Do, PhD

*Understanding the Basis of Electrical Activity in the Central Retina to Improve the Diagnosis and Treatment of Retinal Degeneration*

Children's Hospital Boston, Harvard Medical School

\$120,000

### Behzad Gerami-Naini, PhD

*Using Cells from Teeth to Replace Damaged Cells in Age-Related Macular Degeneration*

Tufts University

\$120,000

### Nady Golestaneh, PhD

*Cellular Self-Eating: An Important Mechanism in Age-Related Macular Degeneration*

Georgetown University

\$120,000

### Neena Haider, PhD

*A Genetic Model for "Wet" Age-Related Macular Degeneration*

The Schepens Eye Research Institute (Boston)

\$120,000

### Hu Huang, PhD

*The Role of Chemokine Receptor in the Pathogenesis of Age-Related Macular Degeneration*

Wilmer Eye Institute (Baltimore)

\$120,000

### Andrius Kazlauskas, PhD

*HtrA1 and Protein Folding Stress in the Retinal Pigment Epithelium*

The Schepens Eye Research Institute (Boston)

\$120,000

### Alexander Marneros, MD, PhD

*Targeting Inflammation in Age-Related Macular Degeneration*

Massachusetts General Hospital (Boston)

\$120,000

### Omid Masihzadeh, PhD

*A Method to Study Age-Related Macular Degeneration Using a New Microscopic Technique*

University of Colorado Eye Center (Aurora)

\$120,000

### Priyatham Mettu, MD

*How Immune Cells Transform Small Blood Vessels to Larger, More Complex Blood Vessels in Severe Wet Macular Degeneration*

Duke University Eye Center

\$120,000

### David Pepperberg, PhD

*A Method to Enzymatically Decrease Toxic Amyloid-Beta in the Eye*

University of Illinois at Chicago

\$120,000

### Sara Venters, PhD

*Investigating Central Neural Retina Development in a Vertebrate Model*

The Regents of the University of California (San Francisco)

\$120,000

### Debra Thompson, PhD

[The Elizabeth Anderson Award for Macular Degeneration Research](#)

*Control of Inflammatory Responses in the Retina*

Regents of the University of Michigan (Ann Arbor)

\$120,000

### Richard Thompson, PhD

*Novel Mechanism for Retinal Deposit Formation in Age-Related Macular Degeneration*

University of Maryland School of Medicine (Baltimore)

\$120,000

### Debasish Sinha, PhD

[The Carolyn K. McGillvray Award for Macular Degeneration Research](#)

*Dysregulated Autophagy/Phagocytosis*

*Activates the Immune System in Age-Related Macular Degeneration*

Johns Hopkins University

\$120,000

### Douglas Vollrath, MD, PhD

[The Helen Juanita Reed Award for Macular Degeneration Research](#)

*Genetics of Retinal Pigmented Epithelium Metabolism: Implications for Age-Related Macular Degeneration*

Stanford University

\$120,000

## ► 2014 BrightFocus Grants at a Glance

60%

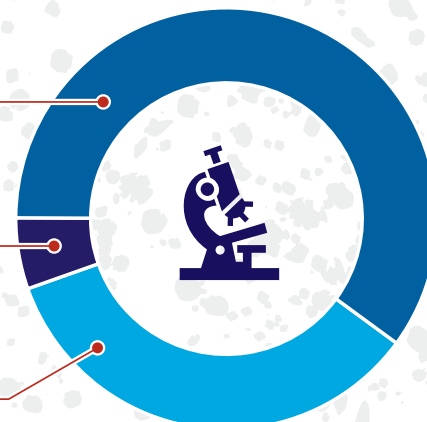
BASIC RESEARCH GRANTS

5%

CLINICAL GRANTS

35%

TRANSLATIONAL GRANTS





# BrightFocus Foundation Team of Scientists

The world's leading experts on Alzheimer's disease, macular degeneration, and glaucoma volunteer to serve on the BrightFocus Scientific Review Committees. All applications for BrightFocus research funding are peer-reviewed and rated on the basis of scientific merit, toward the goal of advancing our understanding of diseases. In order to protect the anonymity of the reviewers, it is BrightFocus' policy to release the names of reviewers who have participated at least once in recent review cycles and may be considered as likely members of subsequent review cycles.

## ALZHEIMER'S DISEASE RESEARCH

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### CO-CHAIR:

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University of California (San Diego)

### CO-CHAIR:

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Stanford University Medical School

**Riqiang Yan, PhD**

Cleveland Clinic Foundation

**Kristine Yaffe, MD**

University of California (San Francisco)

**Hui Zheng, PhD**

Baylor College of Medicine (Houston)

## MACULAR DEGENERATION RESEARCH

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The Cleveland Clinic Foundation

### COMMITTEE:

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The Cleveland Clinic Foundation

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**John Penn, PhD**  
Vanderbilt Eye Institute

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University of Florida

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**Stuart McKinnon, MD, PhD**  
Duke University

**Robert W. Nickells, PhD**  
The University of Wisconsin-Madison

**Ian A. Sigal, PhD**  
University of Pittsburgh School of Medicine

**Arthur J. Sit, MD**  
Mayo Clinic College of Medicine  
(Rochester, NY)

**W. Daniel Stamer, PhD**  
Duke University Eye Center

**James N. Ver Hoeve, PhD**  
University of Wisconsin-Madison

**Mark Wirtz, PhD**  
Oregon Health Sciences University (Portland)

**Darrell WuDunn, MD, PhD**  
Indiana University (Indianapolis)

## International reach



BrightFocus has funded  
research in **22 countries**

BrightFocus has no boundaries. Our scientific review committees identify the most promising areas of research—no matter where in the world it is conducted. To date, BrightFocus has funded research in 22 countries. We partner with four European countries on Alzheimer's disease research. This network generates valuable funding and public information to advance research and educate millions of people around the globe.

### Global Partners:

*Alzheimer Forschung Initiative e.V.*  
GERMANY

*Internationale Stichting  
Alzheimer Onderzoek*  
NETHERLANDS

*Ligue Européenne Contre  
La Maladie d'Alzheimer*  
FRANCE

*Stichting Alzheimer Onderzoek*  
BELGIUM

# Moving closer to a cure

Thank you to our generous donors who are investing in the health of the current and future generations. We are moving closer to finding cures for brain and eye diseases because of your support.

## Ways to Give

BrightFocus Foundation is a nonprofit organization supported by thousands of individuals, private foundations, and corporations. Many donors direct their gifts to one or more of our programs—advancing research, informing the public, and advocating for a cure. Or you can choose to support BrightFocus in general. We offer a wide range of contribution options to accommodate your resources and charitable goals.

## Program Partners

BrightFocus partners with other organizations, foundations, and corporations to enhance our core program activities, including patient education efforts and research on brain and eye diseases.

- 21st Century BrainTrust
- The Allergan Foundation
- Alzheimer's Disease Big Data DREAM Challenge #1
- Alzheimer's Drug Discovery Foundation
- Delta Gamma Foundation
- Echo from Eyemaginations, Inc.
- Geoffrey Beene Foundation Alzheimer's Initiative
- Genentech
- J.T. Tai & Co.
- Leaders Engaged on Alzheimer's Disease (LEAD)
- Molecular Neurodegeneration
- National Alliance for Eye and Vision Research
- Regeneron
- Sanofi
- UsAgainstAlzheimer's

## Supporting Innovative Research

BrightFocus-supported research advances the work of scientists around the world. Here are some examples from research we've funded in the past:



### MAD COW DISEASE AND PRIONS

Support from BrightFocus ultimately led to the discovery of the prion protein, which causes a disorder known as mad cow disease and other fatal neurodegenerative diseases. This work profoundly affected our knowledge about Alzheimer's disease.



### ACCELERATING TREATMENTS

BrightFocus is supporting two small early-stage human clinical trials that test drugs that have already been approved for other purposes in order to speed up efforts to find clinical treatments for Alzheimer's disease. This includes a study of bexarotene, a treatment for T-cell lymphoma, and a study of metformin, a well-known diabetes treatment.



### INVESTIGATING THE EYE-BRAIN CONNECTION

Changes to the pressure in the brain may be just as important in causing glaucoma as changes in eye pressure. BrightFocus-funded researchers are locating and studying the brain cells that control eye and brain pressure with the goal of finding new glaucoma treatments.

## HERITAGE PROFILE

### *Alfred and Betty Schmidiger: A Legacy of Compassion*

Alfred ("Al") and Betty Schmidiger made the most of living at the New Jersey shore during their 15 years of marriage. In addition to being outdoor enthusiasts, they volunteered to protect maritime life and the seashore.

It was in the same spirit of guardianship that the Schmidigers cared for their parents during old age, and left a bequest for Alzheimer's Disease Research as part of their estate planning. Betty, like her mother, suffered from Alzheimer's before dying from cancer in 2004.

Al and Betty planned the BrightFocus bequest many years ago, according to Al's sister. They also left bequests to two other charities and their college alma maters in recognition of the lasting impact education made on their life together.

Al suffered a heart attack and passed away at home in April 2012. Thanks to Al and Betty's charitable spirit, their generous bequest for Alzheimer's Disease Research may eventually spare others from what Betty and her mother suffered.



*Alfred and Betty Schmidiger.*

## Heritage Society Members

Thank you to our Heritage Society Members who have designated a program of BrightFocus in their estate planning.

Anonymous (11)	Ms. Jean T. Dillard
George & Marion Adler*	Ms. Sharon M. Doll
David & Helen Ain	Michael & Marcia Dolyck
Ms. Mary Jane Albrecht*	Ms. Frances Donohue*
Terry E. & Jan Albrecht	Ms. Lucille Dubree*
Ms. Elizabeth A. Alexander*	Ms. Freda Dunn
Mr. James Peter Anderson*	Mr. John Dunphy
Ms. Isabelle N. Atz*	Ms. Helen Eberling
Ms. Mary E. Baldwin	Mr. George H. Elloff*
Ms. Florence Baskin*	Ms. Sophie S. Fedeyko*
Ms. Vivienne Baum*	Ms. Jean Simms Finch*
Mr. John T. Beaty*	Ms. Cynthia Marie Fletcher*
Ms. Lee Beaulieu	Mr. & Mrs. Gerald Follmar
Mr. Jack M. Berghuis*	Ms. Eva Frigyesi
Norman & Betty Bertiaux*	Mr. Marcus A. Garriss*
Mr. Martin Birnbaum	Mr. & Mrs. Robert Geiger
Mr. Peter John Blackmore*	Mr. John B. Geist
Mr. & Mrs. Edward Blackstad	Ms. Marie M. Gesicke
Mr. & Mrs. Donald G. Blakeman	Mr. & Mrs. Allen Gilla
Ms. Dorothy Bleimeister	Ms. Janet E. Gillie
Mr. W. Earl Blevins	Ms. Margaret Goldman
Mr. Alan G. Brice	Mr. John T. Goldthwait*
Ms. Wilma Z. Brooner	Mr. Peter Gormas
Col. William Brown, USAF (Ret.)	Ms. Florence C. Grajewski
Ms. Eleanor M. Buck*	Mr. H. Earl Gray
Ms. Mary Buck	Ms. Carol J. Green
Ms. Dorothy Burgette*	Ms. Madeleine Scott Greer*
Ms. Jean T. Burke	Ms. Eva Grzelak
Ms. Ellen Houser Campbell*	Ms. Carmen M. Hall*
Ms. Nadine C. Cavallaro	Mr. John Hall
Mr. Dave Chapdelaine	Mr. Perry Harten*
Mr. C.L. Cheatham*	Ms. Marian Patesel Hattaway*
Ms. Kathleen E. Cleator*	Mr. & Mrs. Thomas Herrmann
Mr. James W. Coffman	Mr. Everett S. Hilfiker*
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Ms. Alice Dear	Ms. Jane Ann Hovey*
Ms. Ruth A. DeBoer	Mr. Harold Howard*
Dr. Herbert W. Diefendorf*	Herbert & Dorothy Howlett*
Ms. Jan A. Diehl	Ms. Julia F. Hullar*



Ms. Stella Hyman	Mr. Andre Troy Liverpool	Ms. Susan Pettigrew	Ms. Millie Sherman
Ms. Rose Ibson*	Ms. Rosellen Loye-Bucy	Ms. Ruby Poirer	Ms. Marjorie Sparks
Ms. Barbara Iglehart	Mrs. Daisy Lundsten	Mr. & Mrs. Kenneth Poole	Ms. Barbara Spiegel
Ms. Barbara F. Inamoto	Mr. Anthony Lupo	Mr. Jonathan S. Powell*	Mr. Burton Spiller
Ms. Hilda E. Jacob*	Mr. Carl W. Lutz*	Ms. Velda Quimby*	Ms. Dorothy R. Stabler*
Ms. Shirley Jacobson	Mr. Robert J. Mac*	Ms. Gertrude I. Quoss*	Ms. Victoria Starr*
Ms. Constance L. Johnson	Ms. Mildred A. Mahlmann*	Mrs. Betty J. Raab	Ms. Evelyn Casey Steen*
Mrs. Gay Johnson	Ms. Joanne Manoway*	Ms. Analia Rapoport	Ms. Marjorie Stettbacher
Ms. Zetha Johnson	Mr. Neal W. Massey	Ms. Bonnie Rea	Mr. Irwin J. Stovroff
Mr. & Mrs. Kenneth W. Johnston	Mr. Ronald W. Massey	Mr. Herbert W. Reach*	Ms. Carolyn I. Sumner
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Ms. Audrey I. Jude*	Mrs. Ardella R. May	Ms. Lillian H. Reeves	Ms. Ursula Taggart
Mr. Paul Kallina	Mr. & Mrs. Dan May	Kenneth & Ann Reim Trust	Ms. Marcia Thigpen*
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Mrs. Marjorie Kempner	Col. Roy Meeker, USAF (Ret.)	Ms. Lila Rosengren	Ms. Elizabeth Urick-
Ms. Carol Kennedy	Ms. Jane Mae Metzger*	Mr. Thomas L. Ross	Peanamanda
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Mr. Royce W. Ladd	Ms. Marjorie A.	Elizabeth & Mary Schaffer	Mr. Victor Yancey
Mr. Donald P. Lahey	Orth-Youngblood	Ms. Pearl G. Schiffman	Mr. Charles D. Zern*
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Ms. Carol Leino	Ms. Martha Rose Pasko*	Ms. Mary P. Seman	
Ms. Jean M. Lenard	Ms. Marion E. Paul	Ms. Corinne D. Serra	
Mr. Charles Levenhagen*	Mr. E. Winton Perkins*	Ms. Mary B. Sheridan*	

*\*Heritage members who passed away in the last year and left a bequest to the BrightFocus Foundation.*

*"BrightFocus donors have generously given researchers and clinicians the support and motivation to find improved treatments and the means to advance our knowledge to fight blindness more effectively. The organization makes an important contribution toward reciprocal engagement among clinicians, patients, and researchers."*

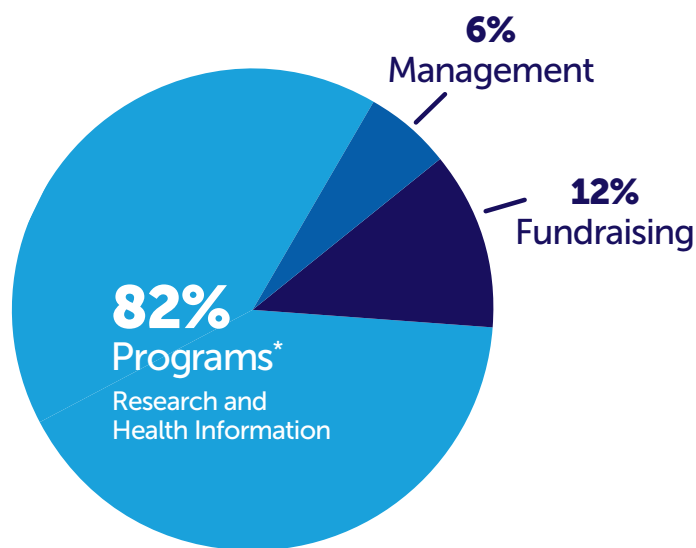
—BEHZAD GERAMI-NAINI, PhD  
Tufts University, Macular Degeneration  
Research grant recipient



# Financial Highlights

BrightFocus is a nonprofit organization designated under Section 501(c)(3) of the Internal Revenue Code. All contributions to BrightFocus and its programs are tax-deductible to the extent allowed by law. The foundation is supported entirely by voluntary private contributions.

## BrightFocus Foundation 2014 Expense Percentage



\*BrightFocus received in-kind donations to expand public health information outreach and is included in Program Services expenses. This allowed the organization to reach millions of people with information about risk factors, treatments, and caregiving topics.

A complete copy of the financial statement audited by Raffa, P.C., is available upon request from BrightFocus at 1-800-437-2423 or [www.brightfocus.org](http://www.brightfocus.org).

## Consolidated Statement of Financial Position

AS OF MARCH 31, 2014

*in thousands  
of dollars*

### ASSETS

Cash and Investments	\$ 34,717
Charitable Trusts and Bequests Receivable	4,009
Rental Property	4,012
Fixed Assets, Net	4,373
Other Assets	1,070
<b>TOTAL ASSETS</b>	<b>\$ 48,181</b>

### LIABILITIES

Accounts Payable and Other Liabilities	\$ 878
Grants Payable	14,605
Charitable Gift Annuities	1,346
<b>TOTAL LIABILITIES</b>	<b>\$ 16,829</b>

### NET ASSETS

Unrestricted	\$ 18,308
Temporarily Restricted	12,954
Permanently Restricted	90
<b>TOTAL NET ASSETS</b>	<b>\$ 31,352</b>

<b>TOTAL LIABILITIES AND NET ASSETS</b>	<b>\$ 48,181</b>
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## Consolidated Statement of Activities

FOR THE FISCAL YEAR ENDED MARCH 31, 2014

*in thousands  
of dollars*

### SUPPORT AND REVENUE

Contributions and Grants	\$ 19,070
Bequests	6,056
Donated Services	17,598
Investment Income	2,195
Rental & Other Income	1,008
<b>TOTAL SUPPORT AND REVENUE</b>	<b>\$ 45,927</b>

### EXPENSES

<b>Program Services</b>	
Research	\$ 11,450
Health Information Services	23,638
<b>TOTAL PROGRAM SERVICES</b>	<b>\$ 35,088</b>

### Supporting Services

Fundraising	\$ 4,854
Management and General	2,667
<b>TOTAL SUPPORTING SERVICES</b>	<b>\$ 7,521</b>

<b>TOTAL EXPENSES</b>	<b>\$ 42,609</b>
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<b>CHANGE IN NET ASSETS</b>	<b>\$ 3,318</b>
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# Leadership

## BrightFocus Board of Directors 2013 – 2014

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J. P. Morgan & Co., Inc., retired  
Saratoga Springs, NY



### VICE CHAIR

#### **Michael H. Barnett, Esq.**

Lieber & Associates, LLC  
New York, NY



### TREASURER

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Dobbs Ferry, NY



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ZS Associates  
New York, NY

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#### **Paul A. Greengard, PhD**

Nobel Laureate  
New York, NY



#### **Stanley B. Prusiner, MD**

Nobel Laureate  
San Francisco, CA

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PUBLIC AFFAIRS  
**Michael Buckley**

VICE PRESIDENT OF  
DEVELOPMENT  
**Donna Callison**

VICE PRESIDENT OF  
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VICE PRESIDENT  
OF FINANCE AND  
ADMINISTRATION  
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CPA, CMA**



## Programs

Alzheimer's Disease Research  
Macular Degeneration Research  
National Glaucoma Research

## Contact

22512 Gateway Center Drive  
Clarksburg, MD 20871  
1-800-437-2423  
[www.brightfocus.org](http://www.brightfocus.org)

## Connect & Share

[www.brightfocus.org/connect](http://www.brightfocus.org/connect)



## Recognized for our Integrity

