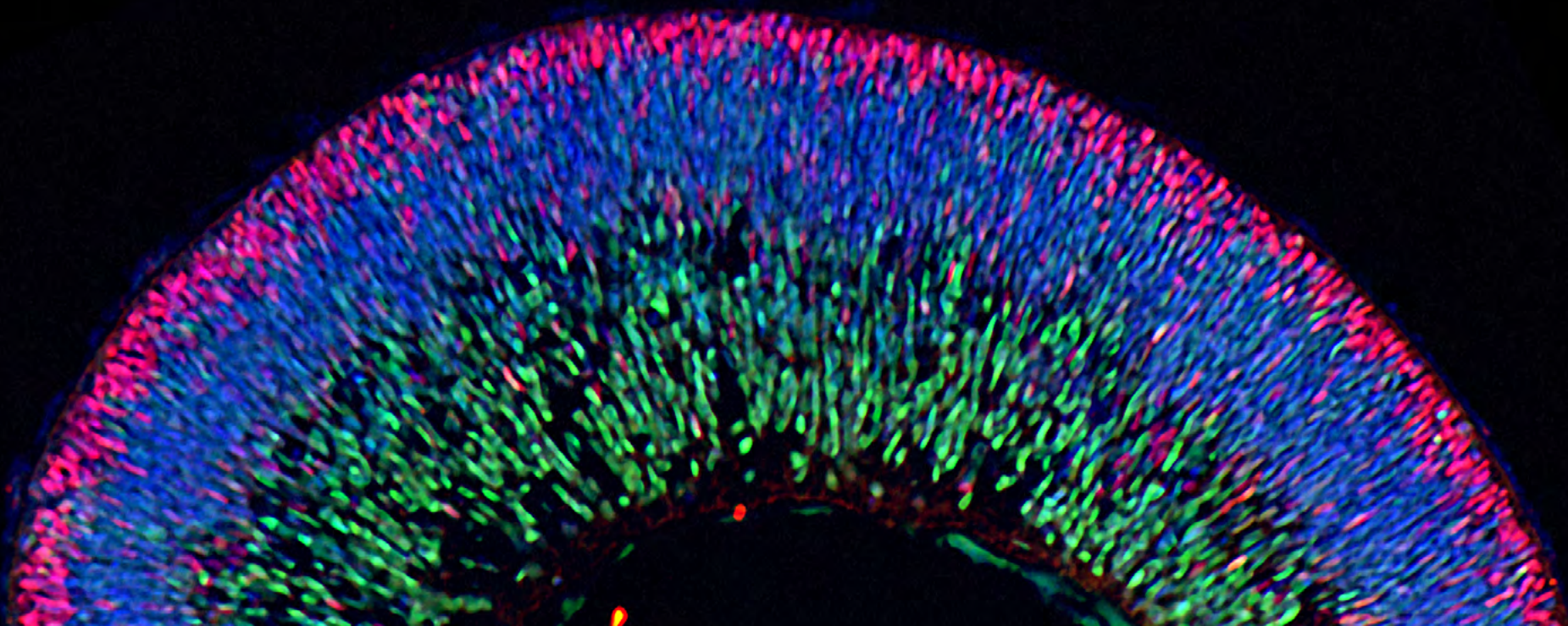


B O L D L Y E X P L O R I N G



**BrightFocus[®]
Foundation**

Cure in Mind. Cure in Sight.

2021 ANNUAL REPORT

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



THIS YEAR, WE'VE FUNDED
\$25.3 MILLION
IN RESEARCH GRANTS TO
SAVE MEMORIES AND SIGHT.

Our Mission

BrightFocus funds exceptional scientific research worldwide to defeat Alzheimer's disease, macular degeneration, and glaucoma, and provides expert information on these heartbreaking diseases.

Cover: A mini human retina in a dish, derived from adult stem cells, provides a new model for studying AMD. (Courtesy of Maria Valeria Canto-Soler, PhD, University of Colorado)



FUNDING
RESEARCH IN
25
COUNTRIES



106
NEW
RESEARCH
GRANTS



84%
EARLY
CAREER
RESEARCHERS



OVER
260
ONGOING
SCIENCE
PROJECTS

Inside

<u>Alzheimer's Disease Research</u>	6
<u>Macular Degeneration Research</u>	10
<u>National Glaucoma Research</u>	14
<u>2021 Grant Recipients</u>	18
<u>Scientific Review Committees</u>	24
<u>Partnerships for a Cure</u>	26
<u>Investing in a Cure</u>	28
<u>Financial Highlights</u>	38
<u>Board & Leadership</u>	39

Top left: Neurons in a mouse brain. (Courtesy of Ksenia Kastenanka, PhD, Massachusetts General Hospital)

Top right: Different types of immune cells are shown in the eye's retina and choroid. (Courtesy of Jeremy Lavine, MD, PhD, Northwestern University)

Bottom left: Astrocytes, a type of cell that supports brain function, grown in a dish for studying Alzheimer's. (Courtesy of Dominik Paquet, PhD, Ludwig Maximilian University of Munich, Germany)

Bottom right: An astrocyte in a person with frontotemporal dementia. (Courtesy of Elise Marsan, PhD, University of California, San Francisco)

Thank you.

Because of you, we are seeing – more than ever – the powerful impact of a generous, growing community of donors fueling the brilliance and the drive of scientists around the world working to save our memories and sight.

We are proud to report that this year BrightFocus awarded a record-high \$25.3 million in grants to support 106 scientific projects, our tenth consecutive annual increase. Eighty percent of these were to early-career researchers, giving flight to new ideas, new approaches, and new faces in our shared mission to end Alzheimer's, macular degeneration, and glaucoma.

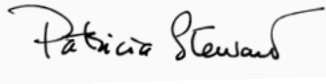
The fruits of our funding philosophy are seen in two recent, exciting developments: the first widely-available blood test to identify early signs of Alzheimer's; and the FDA giving "Breakthrough Therapy" status to a potential new drug that could better treat macular degeneration. Both are rooted in key, early funding from BrightFocus, our sowing the seeds of the bold "what-if's" of science.

There has never been a more hopeful time for science. And our work is far from over. To tackle – and defeat – these diseases we must continue our innovative, strategic philanthropy and collaboration.

To the many donors and scientists, thank you.



Stacy Pagos Haller
President and CEO



Patricia McGlothlin Stewart, CFP
Chair, Board of Directors



Science that Makes a Difference

Molecular Neurodegeneration, the official BrightFocus scientific journal, saw its impact factor rise significantly in recent years. It is the top-ranked open access journal in its field.

"The meteoric rise of the journal's impact factor – from a 5.3 when BrightFocus first began its support in 2010 to a 9.6 a year ago and now a

14.2 FROM 5.3
TO
14.2

is a powerful testament to BrightFocus' success in driving scientific collaboration and discovery."



– *Diane Bovenkamp, PhD,*
BrightFocus Vice President,
Scientific Affairs

Women and Alzheimer's: An Unmet Need

"This partnership with WHAM is pushing the field forward in the very important area of sex-based #Alzheimers research."



– Sharyn Rossi, PhD
Director of
Scientific Programs,
Neuroscience
at @brightfocus.

"This is really about, for the first time, galvanizing the business community and other leaders to raise awareness around the importance of #WomensHealth."



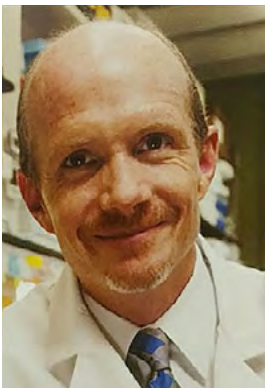
– Stacy Pagos Haller,
President & CEO of
@brightfocus, on
the #WHAMReport.



BrightFocus and Women's Health Access Matters (WHAM) recently announced a new partnership to increase funding

for women-focused Alzheimer's disease research. New data show investments in women's health research, particularly in Alzheimer's disease and related dementias, have a bigger impact than when Alzheimer's research is not targeted to women.

BrightFocus Researchers Elected to National Academy of Medicine



NATIONAL ACADEMY OF MEDICINE

Leadership • Innovation • Impact | for a healthier future

Three leading researchers renowned for their scientific breakthroughs in **Alzheimer's, macular degeneration and glaucoma** – and who were given key early support from BrightFocus – were recently elected as members of the prestigious National Academy of Medicine, the Congressionally-chartered body providing strategic guidance to the nation on these critically important research areas.

Above left to right: Randall Bateman, MD; Jeffrey Goldberg, MD, PhD; Tien Y. Wong, MBBS, PhD.

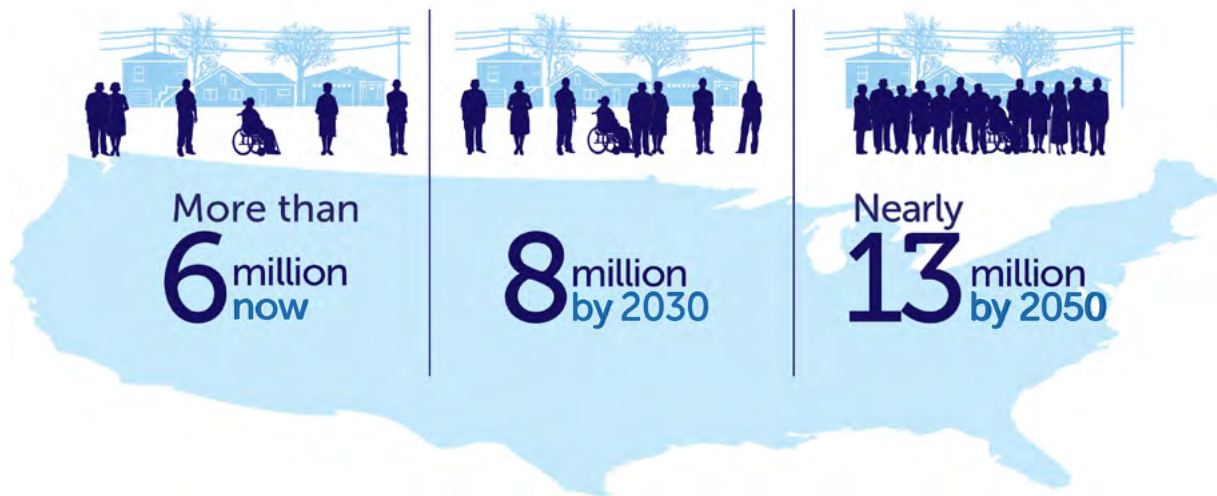


ALZHEIMER'S
DISEASE
RESEARCH

EVERY DAY MORE THAN 1,300 AMERICANS DEVELOP ALZHEIMER'S DISEASE.

In 2021, BrightFocus awarded \$14.1 million in funding for 46 new Alzheimer's research grants.

Alzheimer's Disease in the United States



Recognition for Efforts to Better Treat Traumatic Brain Injury

BrightFocus received the inaugural Impact Award from the Medical Technology Enterprise Consortium (MTEC) for its work supporting the scientific development of better treatments for repeated mild traumatic brain injury (mTBI). MTEC is a public-private partnership with the U.S. Department of Defense and key research, advocacy, and corporate organizations.

Veterans who have experienced repeated mTBIs have been found to be at 2-5 times the risk for Alzheimer's and other forms of dementia.

"We are harnessing the power of science to better protect those who are protecting us," said BrightFocus President and CEO Stacy Pagos Haller. "We are excited that this partnership with MTEC will bring the latest science and technology to improve the lifelong health of the dedicated men and women who serve our country."

Opposite page: The brain's immune cells play a role in Alzheimer's. Here we see fats (red) accumulating in brain immune cells (green) surrounded by amyloid plaques (blue). (Courtesy of Christel Claes, PhD, University of California, Irvine)



#AlzDayofHope Shares Our 360-Degree Alzheimer's Research Approach

BrightFocus recently held its first #AlzDayofHope event to raise funds and spotlight the many scientists who are working hard to find a cure. Our signature 360-degree approach to Alzheimer's research is gaining a better understanding of the root causes of the disease, improving early detection and diagnosis, and developing new drugs and treatments.

Alzheimer's Disease Research is kick-starting the most promising ideas in many key areas. By funding novel research, we are opening new pathways to a cure and a more hopeful future.

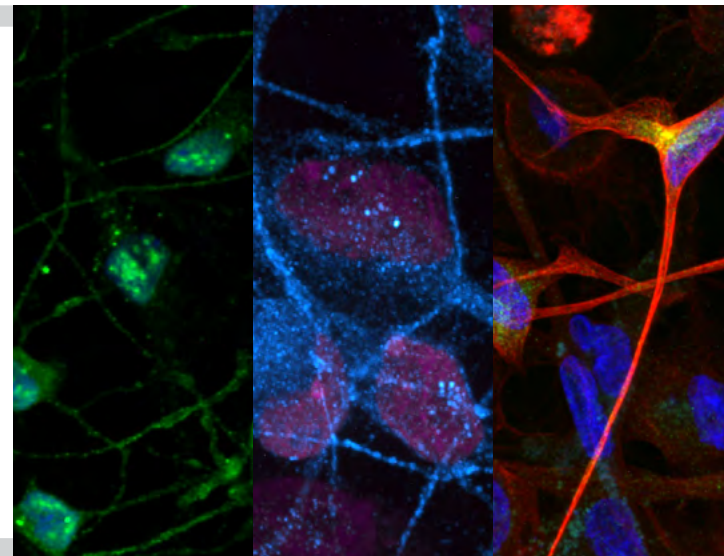
RESEARCH IN BRIEF

New Alzheimer's Model Reveals Genetic Changes Associated With Aging

In groundbreaking research led by BrightFocus-funded Jerome Mertens, PhD, Salk Institute scientists successfully converted skin cells from people with Alzheimer's directly into age-equivalent neurons for the first time. According to Mertens,

"This research might hold exciting potential for personalized medicine approaches in the Alzheimer's field."

Right: Neurons derived from skin cells from different individuals with Alzheimer's disease. (Courtesy of Sylvia Pelucchi, PhD, Mertens Lab, University of Innsbruck, Austria)



Exploring the Brain-Eye Connection and Beyond

At the 15th International Conference on Alzheimer's & Parkinson's Diseases, BrightFocus co-organized a workshop on the common and distinct features of neurodegenerative disease including diseases that affect the brain and the eyes. The virtual session held in March 2021, was led by Diane Bovenkamp, PhD, BrightFocus Vice President,

Scientific Affairs; Adriana Di Polo, PhD, University of Montreal; Guojun Bu, PhD, Mayo Clinic, Jacksonville; and Todd Golde, MD, PhD, University of Florida. This is the third workshop held at the bi-annual AD/PD conference which is attended by hundreds of scientific researchers worldwide.

Left: The eye-brain connection.



Above left: The team that pioneered the PrecivityAD blood test (from left): Philip Verghese, PhD; Randall Bateman, MD; David Holtzman, MD; and Joel Braunstein, MD. The test is processed at C₂N labs in St. Louis, MO, shown at right. (Courtesy of C₂N Diagnostics)

Pioneering the First-Ever Alzheimer's Blood Test

When researchers said that someday it may be possible to screen for Alzheimer's through a blood sample – instead of expensive, invasive tests – BrightFocus seized the moment, giving flight to a potentially game-changing idea.

Through its Alzheimer's Disease Research program, BrightFocus provided key, early funding to get this innovative idea off the ground. This bold bet is bearing fruit, as the PrecivityAD™ blood test is now in use in the U.S. and Europe, helping to boost early diagnosis and speed recruitment into clinical trials.

Behind it are a team of scientists at/from the Washington University School of Medicine in St. Louis, MO, and C₂N Diagnostics, the groundbreaking small biotech that developed the test for commercial use. They include C₂N scientific co-founders Randall Bateman, MD, and David Holtzman, MD, both of the Washington University

neurology faculty, which Dr. Holtzman chairs; Joel Braunstein, MD, MBA, president, CEO, and another cofounder of C₂N Diagnostics; and Philip Verghese, PhD, C₂N director of Research, Development and Operations.

Dr. Bateman, who first pioneered techniques used in the test, expressed gratitude to BrightFocus. "Taking an idea, or a hypothesis, to the point where it has an impact on a disease is a long journey," he said, "yet the rewards – in terms of earlier diagnosis and accelerating cures – were so substantial, we were invigorated to press on."

"I appreciate BrightFocus for supporting my early discoveries, and for recognizing that this work would translate into real-world benefits," he said. "It's taken a lot of teamwork to get to this point, and we are grateful to BrightFocus and its donors for believing in our efforts."

"The advantage of the blood sample is it's just much easier."

*Randall Bateman, MD,
Washington University
School of Medicine*



MACULAR
DEGENERATION
RESEARCH

AGE-RELATED MACULAR DEGENERATION IS A LEADING CAUSE OF IRREVERSIBLE VISION LOSS IN THE U.S.

In 2021, BrightFocus awarded \$6.2 million in funding for 20 new macular degeneration research grants.



National Eye Institute

A recent Chat guest was Emily Chew, MD, of the National Eye Institute at NIH.

BrightFocus[®]
Chats

**Sharing Latest Research
Updates on Vision Loss**

Our Chat telephone call-in series features the latest news and advice for those living with vision loss in a free, monthly format. Researchers, clinicians, and low-vision specialists offer updates and answer questions from participants via phone or online. The Chats are archived at BrightFocus.org.

A recent discussion featured Emily Chew, MD, a leading vision researcher at NIH's National Eye Institute. Dr. Chew shared the latest news, including her own research, on the role of diet and nutritional supplements in age-related macular degeneration.

Opposite page: This 3D model of the retinal pigment epithelium (RPE), a layer of cells that supports the retina and defends it against macular degeneration, shows RPE cell boundaries (pink), nuclei (blue), autophagosomes (green) and lysosomes (red). (Courtesy of Aparna Lakkaraju, PhD, University of California, San Francisco)

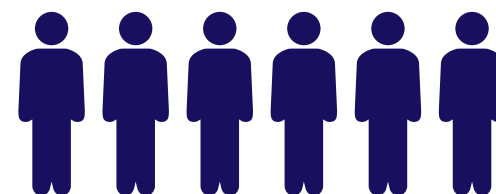
TODAY



11 million
in US

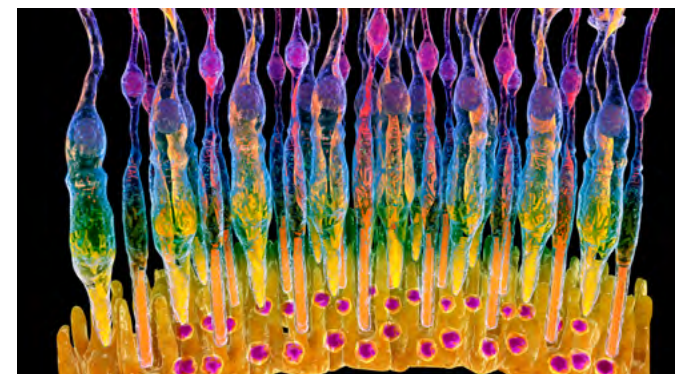
**Macular
Degeneration
in the
United States**

BY 2050



The incidence
of macular
degeneration
is expected to

**double
by 2050**



Cross section of the retina, with photosensitive cones and rods, top, and the RPE (orange).



Blood vessels of the eye.

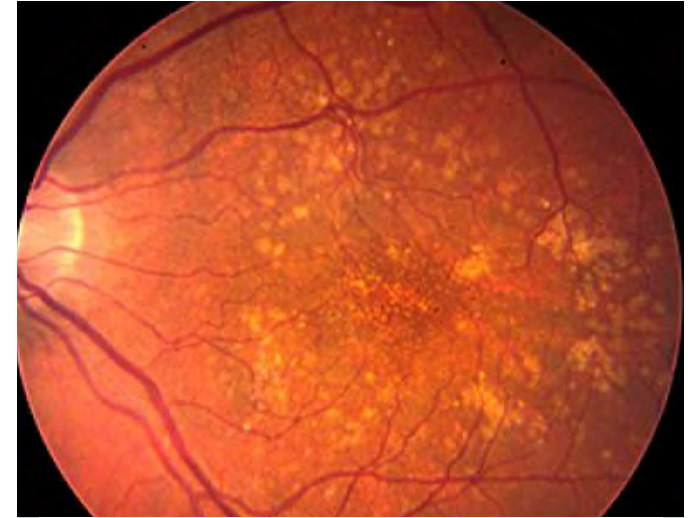


RESEARCH IN BRIEF

First-Ever 3D Cell Model of Human Eye Replicates AMD

Ruchira Singh, PhD, at the University of Rochester's Flaum Eye Institute, was part of a team of medical researchers and bioengineers that developed a breakthrough, three-dimensional (3D) matrix model of wet age-related macular degeneration that can help with better understanding what causes the disease and in finding effective treatments. Singh's research was supported by a grant from BrightFocus' Macular Degeneration Research.

Above: Dr. Singh and colleague in her lab. (Courtesy of Ruchira Singh, PhD, University of Rochester's Flaum Eye Institute)



RESEARCH IN BRIEF

Stopping AMD Before It Starts

Aparna Lakkaraju, PhD, studies how, drusen, small deposits made of lipid droplets that are a defining feature of AMD, are formed early in the disease. She and her team discovered that the levels of lipid droplets, the likely precursors to drusen, can be reduced with cholesterol-inhibiting drugs. Dr. Lakkaraju recently received the newly-created MDR *Innovative Research* award to support her novel work in macular degeneration.

Above: Image of an AMD eye.

“First-In” Science May Save Sight

Early in his career as a Columbia University chemist, Ilyas Washington, PhD, had a big idea, one of those “what-if’s” of science. At this critical, early moment, BrightFocus was there.

Through its Macular Degeneration Research program, BrightFocus provided a grant that may now bear fruit toward treating not just one, but possibly two, vision diseases that can lead to blindness.

In his work, Dr. Washington investigates natural compounds that damage or protect the eye as it ages and undergoes stress. That led him to lipofuscin, a pigmented protein that accumulates and damages the retina in Stargardt’s disease, an inherited condition that resembles age-related macular degeneration (AMD).

Dr. Washington had noticed that vitamin A, which helps protect the eye, reacted to lipofuscin by

changing its molecular form. He thought it might be possible to create a similar, modified form of vitamin A to slow lipofuscin build-up. This is where BrightFocus came in.

“BrightFocus was the first major funder of my academic lab. They gave me the opportunity – and the confidence – to believe that I could someday stop someone from losing their sight,” says Dr. Washington, who is now with Alkeus Pharmaceuticals, a company he helped found and developer of this potential new treatment.

This year, his proposed oral drug received a “Breakthrough Therapy” designation from the U.S. Food and Drug Administration, an accelerated track for evaluation and potential approval to treat Stargardt’s. Given the disease’s scientific similarities to geographic atrophy, an advanced and currently untreatable form of AMD, there is great hope toward treating that as well.



This year his proposed oral drug received a “Breakthrough Therapy” designation from the U.S. FDA.



NATIONAL
GLAUCOMA
RESEARCH

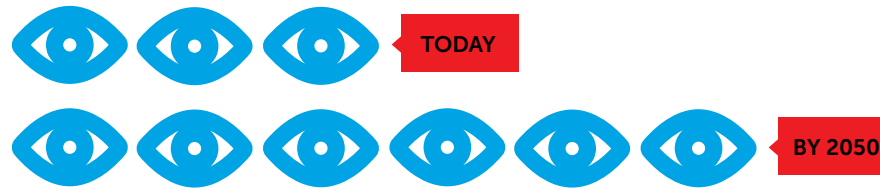
GLAUCOMA IS THE MOST COMMON CAUSE OF IRREVERSIBLE BLINDNESS WORLDWIDE.

In 2021, BrightFocus awarded \$4.9 million in funding for 17 new glaucoma research grants.

Glaucoma in the United States

Today, more than **3 million** Americans have glaucoma. By 2050, it is estimated that the number will double to

6 million people



BrightFocus Global Leadership in Vision Science



The annual meeting of the Association for Research in Vision and Ophthalmology (ARVO)

is the world's main stage for sharing bold ideas in vision science. By mingling disciplines and discoveries, it incubates innovative, collaborative research into treatments and cures. This year's ARVO, held virtually due to the pandemic, brought together researchers from 75 countries – MDs, PhDs, and young scientists in training.

BrightFocus had a major presence. At least 60 presentations shared results from Macular Degeneration Research or National Glaucoma Research grant projects; and additional BrightFocus-funded research was referenced in hundreds of talks.

Preeti Subramanian, PhD, our Director of Scientific Programs, Vision Science, was recently invited to



Preeti Subramanian, PhD, Director, Scientific Programs, Vision Science

serve on two key ARVO committees to better promote diversity and inclusion of minority groups, women, and those with special needs in vision research.

Opposite page: In an eye with exfoliation syndrome, the discarded protein material (white spots) can block drainage and lead to glaucoma. (Courtesy of Karen Curtin, PhD, University of Utah)

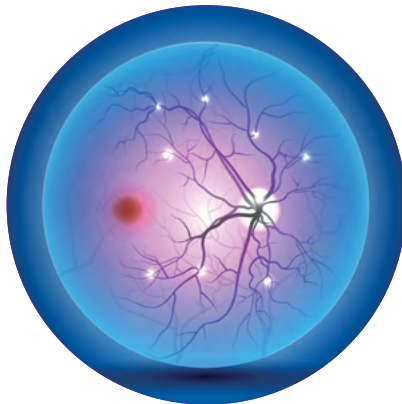
Promoting Eye Exams During Healthy Vision Month

NEI @NatEyeInstitute · May 24
Today's #HealthyVisionMonth partner spotlight is @_BrightFocus!
Check out this PSA on why it's so important to get your eyes checked:
brightfocus.org/macular-glauco...



Partnering with the National Eye Institute this past May, Healthy Vision Month, BrightFocus helped promote ways to protect eyesight including sharing public service announcements "Make A Plan Today: Get Your Eyes Checked" with television and radio stations nationwide.

Right: The inner part of the eye as seen with a dilated eye exam.

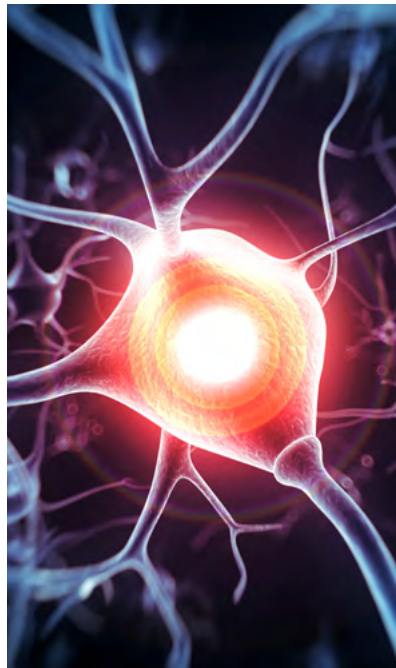


RESEARCH IN BRIEF

Successful Cell Transplant Gives Hope for New Glaucoma Treatment

BrightFocus National Glaucoma Research-funded researcher Petr Baranov, MD, PhD, of the Schepens Eye Research Institute at Harvard Medical School, recently led a team of scientists in the first successful attempt to transplant retinal ganglion cells (RGCs) into the eyes of mice to find a cure for glaucoma.

Cell transplant experiments offer hope of restoring vision loss from glaucoma.



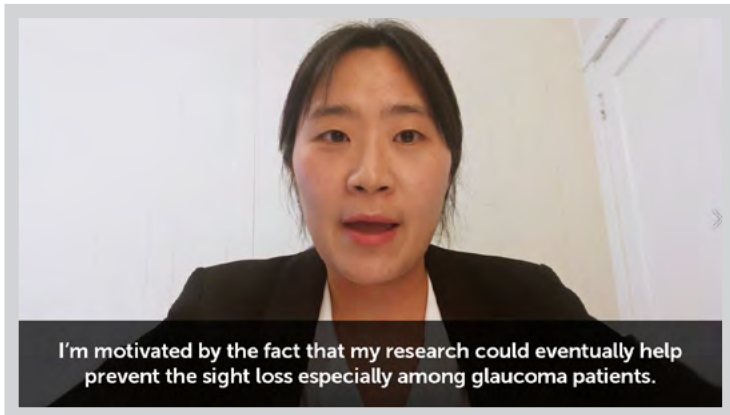
RESEARCH IN BRIEF

Revolutionary Concept in Glaucoma Care

Gregory Ksander, PhD; Meredith Gregory-Ksander, PhD; and their Harvard colleagues used gene therapy to "reprogram" eye tissue to a younger state in mice, restoring vision lost to glaucoma. They credit early funding from National Glaucoma Research for launching this bold idea which could transform treatment for glaucoma and age-related diseases.

Optic nerve regeneration.

Seeing Glaucoma from New Angles: the Eye-Brain Connection



Ji Won Bang, PhD, thinks science isn't seeing the whole picture with glaucoma. She believes its roots extend beyond the eye, and that glaucoma should be studied from the perspectives of both the eye and brain.

Her innovative project, supported by a National Glaucoma Research (NGR) fellowship grant, will explore connections between the sleep disruption commonly experienced by glaucoma patients and neurodegeneration. "No studies have yet examined

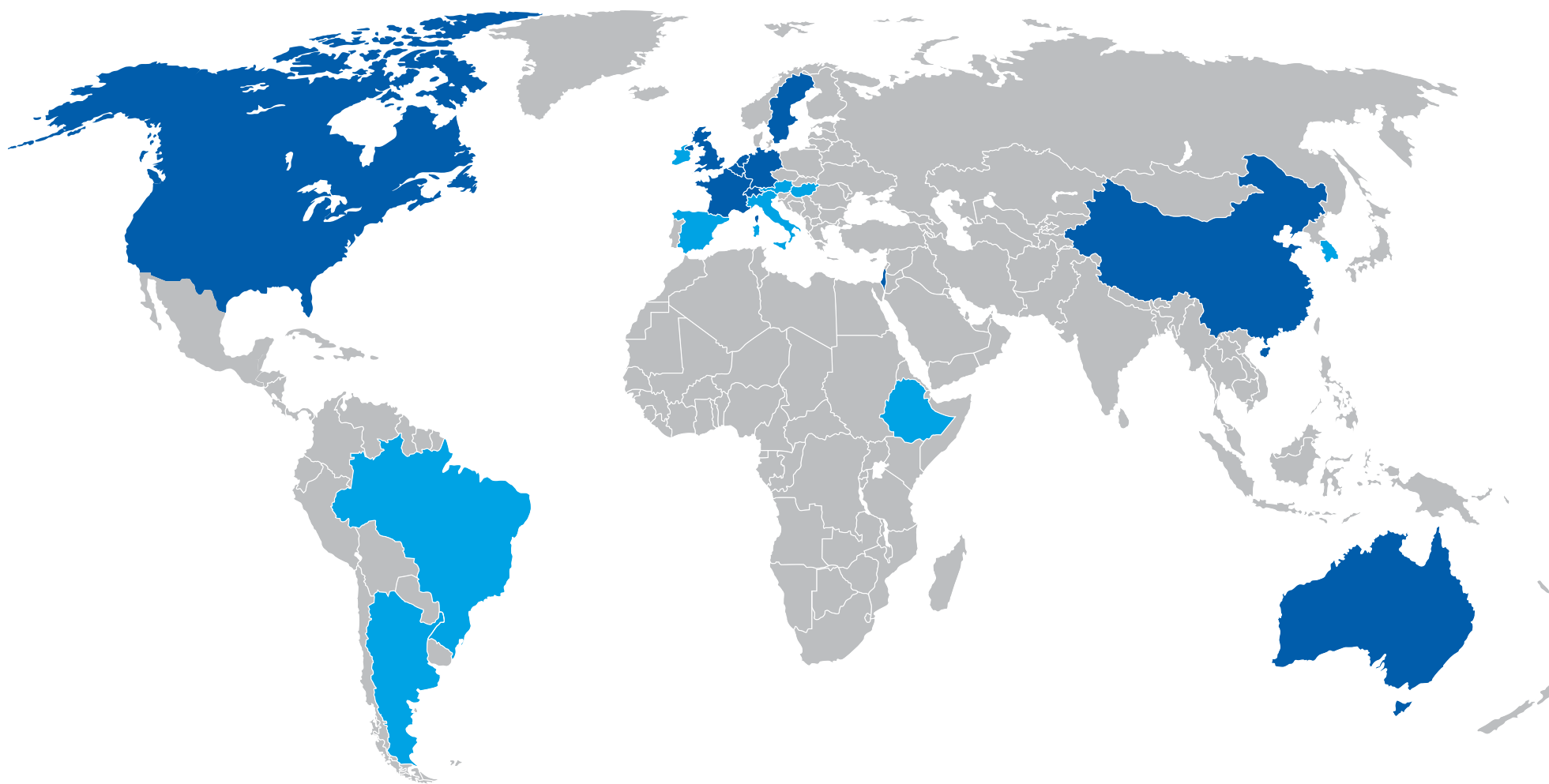
how the sleep-regulating systems are affected by glaucoma," she says. The results may also prove helpful against Alzheimer's, for which sleep disruption is a significant risk factor.

She's being guided by two experts at New York University's Grossman School of Medicine, both of whom also had early-career BrightFocus grants: Kevin Chan, PhD, who's linked early glaucoma with eyebrain dynamics; and Dr. Chan's own former mentor, Joel Schuman, MD, who was part of the team that developed the landmark optical coherence tomography (OCT) imaging, which has revolutionized vision care.

Dr. Bang, who is currently based in Dr. Chan's lab, is hopeful for the future of her research in this area. Thanking donors to BrightFocus' NGR program, she compared her grant to a seed: "The seed will grow its roots, it will turn into a sprout, and it will open up many beautiful flowers. Likewise, I believe that we are making the initial steps towards a better understanding of glaucoma and sleep disorder."

"I believe that we are making the initial steps towards a better understanding of glaucoma and sleep disorder."

Ji Won Bang, PhD



2021 BRIGHTFOCUS GRANTS AT A GLANCE

BASIC – Research that aims to better understand how a disease happens, and to obtain new ideas of how to stop the disease.

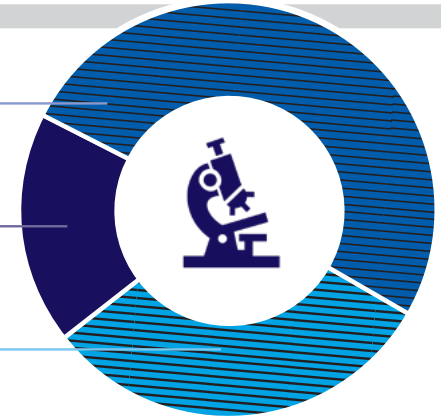
CLINICAL – Research involving volunteer participants to test the safety and effectiveness of drugs, devices, or other treatment candidates.

TRANSLATIONAL – Research to move findings from the lab bench to the “bedside” by testing potential treatments.

51%
BASIC RESEARCH GRANTS

18%
CLINICAL RESEARCH GRANTS

31%
TRANSLATIONAL RESEARCH GRANTS



ALZHEIMER'S DISEASE RESEARCH

Restoring Sleep and Memory Deficits in Alzheimer's Disease by Targeting Somatostatin Interneurons

Moustafa Algamal, PhD
MASSACHUSETTS GENERAL
Fellowship Mentor:
Ksenia Kastanenka, PhD

Astroglial Inflammatory Signaling in Alzheimer's Disease

Benedetta Assetta, PhD
BROWN UNIVERSITY
Fellowship Mentor:
Yu-Wen Alvin Huang, MD, PhD

Characterization of Tau Pathology Heterogeneity Across the Alzheimer's Disease Spectrum

Alexa Pichet Binette, PhD
LUND UNIVERSITY (SWEDEN)
Fellowship Mentor:
Oskar Hansson, MD, PhD

Nucleus Incertus of the Brain: Mapping its Genomic Expression and Changes in Alzheimer's Disease

Camila de Avila Dal Bo, PhD,
MSc
MAYO CLINIC ARIZONA
Fellowship Mentor:
John David Fryer, PhD

Single Cell Profiling of MAPT Splicing Mutation Ipsc-Derived Organoids and Brain Tissue

Kathryn Bowles, PhD
ICAHN SCHOOL OF MEDICINE
AT MOUNT SINAI

APOE4 Gender-Dependent Regulation of Neutrophil-Microglia Cross-Talk in Alzheimer's Disease

Oleg Butovsky, PhD
BRIGHAM AND WOMEN'S
HOSPITAL

Molecular Mechanisms Of Axonal Pathology in Alzheimer's Disease

Yifei Cai, PhD
YALE UNIVERSITY
Fellowship Mentor:
Jaime Grutzendler, MD

Physical Interaction of TREM2 and C1q in Alzheimer's Disease

Xiaofen Chen, PhD
XIAMEN UNIVERSITY (CHINA)

The Relationship Between Amyloid/Tau Pathology and Different Memory Processes Underlying Memory Aging

Xi Chen, Ph.D.
THE UNIVERSITY OF
CALIFORNIA, BERKELEY
Fellowship Mentor:
William Jagust, MD

The Microbiota Cell-Type Specific Regulation of AD Pathogenesis

Laura Cox, PhD
BRIGHAM AND WOMEN'S
HOSPITAL

Effects and Mechanisms of APOE-Induced Meningeal Lymphatic Remodeling in Alzheimer's Disease

Sandro Da Mesquita, PhD
MAYO CLINIC JACKSONVILLE

The Role of Brain Connectivity as a Mechanistic Link Between Amyloid and Tau Pathology Spread in Alzheimer's Disease

Nicolai Franzmeier, PhD
LUDWIG MAXIMILIAN
UNIVERSITY OF MUNICH
(GERMANY)

Detecting Leaky Vessels in Cerebral Amyloid Angiopathy – a Novel Approach

Whitney Freeze, PhD
LEIDEN UNIVERSITY MEDICAL
CENTER (NETHERLANDS)
Fellowship Co- Mentor:
Louise van der Weerd, PhD
Fellowship Co-Mentor:
Susanne van Veluw, PhD;
HARVARD UNIVERSITY

Cerebral Organoids to Investigate Cellular and Neuronal Network Vulnerability in Alzheimer's Disease and Progressive Supranuclear Palsy

Hongjun Fu, PhD
THE OHIO STATE UNIVERSITY

Targeting E3 Ligase IDOL to Mitigate Apoe4-Mediated Tau Pathology

Jie Gao, PhD
THE OHIO STATE UNIVERSITY

De-Phosphorylation of Tau by Chaperone Complexes

Jason Gestwicki, PhD
THE UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
Co-Principal Investigator:
Daniel Southworth, PhD

Defining Connections Between ROS-Induced Glial Lipid Droplets and Tau in Alzheimer's Disease

Lindsey Goodman, PhD
BAYLOR COLLEGE OF MEDICINE
Fellowship Mentor:
Hugo Bellen, DVM, PhD

The Landscape and Expression of APOE Transcripts in Human Brain and Alzheimer's Disease

Emil Gustavsson, PhD
UNIVERSITY COLLEGE LONDON (UK)
Fellowship Mentor:
Mina Ryten, MD, PhD

Systems Genetics Analysis of Alzheimer's Disease Related Sleep Disruption

Niran Hadad, PhD
THE JACKSON LABORATORY
Fellowship Mentor:
Catherine Kaczorowski, PhD

Transcriptional Dysregulation of the Endocytic Machinery in AD

Ulrich Hengst, PhD
COLUMBIA UNIVERSITY

Blood-Based Markers For Alzheimer's Pathology in Cognitively Healthy Centenarians: Revealing Mechanisms Of Resistance And Resilience

Henne Holstege, PhD
VU UNIVERSITY MEDICAL CENTER (NETHERLANDS)

Immune Mechanisms of Synapse Loss in Alzheimer's Disease

Soyon Hong, PhD
UNIVERSITY COLLEGE LONDON (UK)

Pathophysiology of sRNAs in Alzheimer's Disease

Laura Ibanez, PhD
WASHINGTON UNIVERSITY IN ST. LOUIS

Lysosomal Signaling in Microglia and Alzheimer's Disease

Harini Iyer, PhD
STANFORD UNIVERSITY
Fellowship Mentor:
William Talbot, PhD

From Genetics to the Cellular Phase of Alzheimer's Disease: Untangling the Role of Lipid Pathways in Microglia Responses to Amyloid Pathology

Renzo Mancuso, PhD
VIB (BELGIUM)

Tau Phosphorylation in Preclinical and Symptomatic Autosomal Dominant Alzheimer's Disease

Karin Meeker, PhD
WASHINGTON UNIVERSITY SCHOOL OF MEDICINE
Fellowship Mentor:
Beau Ances, MD, PhD, MSc

The Role Of HIF-1a in the Microglial Response to Alzheimer's Disease Pathology

Jonas J Neher, PhD
GERMAN CENTER FOR NEURODEGENERATIVE DISEASES (GERMANY)

Investigating the Role of Liver X Receptors in Control Of Alzheimer's Disease Risk Genes and Lipid Clearance in Hpsc-Derived Microglia

Anna Podlesny-Drabiniok, PhD
ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI
Fellowship Mentor:
Alison Goate, PhD

Protective Mechanism of APOE3-Christchurch in Alzheimer's Disease

Ana-Caroline Raulin, PhD
MAYO CLINIC JACKSONVILLE
Fellowship Mentor:
Guojun Bu, PhD

Developmental Determinants of Sexually Divergent Neuroinflammatory Processes in Alzheimer's Disease

Erin Reed-Geaghan, PhD
NORTHEAST OHIO MEDICAL UNIVERSITY

The Role of HDL Containing ApoE in Alzheimer's Disease

Jerome Robert, PhD
UNIVERSITY HOSPITAL OF ZÜRICH (SWITZERLAND)

Identifying Novel Modifiers of Tau Aggregation and Pathology Using Proximity Proteomics

Wilfried Rossoll, PhD
MAYO CLINIC JACKSONVILLE

Pericyte Neuron Crosstalk and the Progression of Alzheimer's Disease

Melanie Samuel, PhD
BAYLOR COLLEGE OF MEDICINE
Co-Principal Investigator:
Joshua Wythe, PhD

Reduced Protein Intake Counteracts Alzheimer's Disease: Examination of Nutrition Signaling and the Lysosomal System

Timothy Sargeant, PhD
SOUTH AUSTRALIAN HEALTH AND MEDICAL RESEARCH INSTITUTE (AUSTRALIA)
Co-Principal Investigator:
Julien Bensalem, PhD
Co-Principal Investigator:
Leonie Heilbronn, PhD;
UNIVERSITY OF ADELAIDE (AUSTRALIA)

Neural Circuit Mechanisms Underlying Sleep Disruption in Alzheimer's Disease Model Mice

Takashi Sato, PhD
MEDICAL UNIVERSITY OF SOUTH CAROLINA

Detecting and Characterizing Preclinical AD Using AI And Structural MRI

Aristeidis Sotiras, PhD
WASHINGTON UNIVERSITY IN ST. LOUIS

Clock-Driven Sleep Fragmentations in Tauopathy

Masashi Tabuchi, PhD
CASE WESTERN RESERVE UNIVERSITY

The Brainstem Locus Coeruleus: Potential Bridge Between Sleep-Wake Disruption and Alzheimer's Disease Pathogenesis

Maxime Van Egroo, PhD
MAASTRICHT UNIVERSITY
(NETHERLANDS)
Fellowship Mentor:
Heidi Jacobs, PhD

The Role of the Peripheral Immune-System in FTD-GRN; Increasing Understanding for Future Therapeutic Target Development

Rebecca Wallings, PhD
UNIVERSITY OF FLORIDA
Fellowship Mentor:
Malu Tansey, PhD

Determining Mechanisms of Age-Related Cerebrovascular Dysfunction in a Genetic Model of Cerebral Small Vessel Disease

Xiaowei Wang, PhD
THE UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
Fellowship Co-Mentor:
Douglas Gould, PhD
Fellowship Co-Mentor:
Tyson Kim, MD, PhD
Fellowship Co-Mentor:
Scott Earley, PhD;
UNIVERSITY OF NEVADA

Understanding Tau-Induced Nuclear Transport Deficits in Alzheimer's Disease

Susanne Wegmann, PhD
GERMAN CENTER FOR NEURODEGENERATIVE DISEASES (GERMANY)

The Role Of Peripheral apoE in the High Density Lipoprotein Fraction In Vascular Contributions to Alzheimer's Disease

Cheryl L. Wellington, PhD
UNIVERSITY OF BRITISH COLUMBIA (CANADA)

Fibrinogen-mediated Innate Immune Activation and Neuronal Dysfunction in Alzheimer's Disease

Zhaoqi Yan, PhD
THE J. DAVID GLADSTONE INSTITUTES
Fellowship Mentor:
Katerina Akassoglou, PhD

APOE Genotype-Dependent Effects of Life-Style Intervention in Healthy Aging and Alzheimer's Disease

Na Zhao, PhD, MD
MAYO CLINIC JACKSONVILLE

Characterizing the Role of Microglial GPR56 in Alzheimer's Disease

Beika Zhu, PhD
THE UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
Fellowship Mentor:
Xiannhua Piao, MD, PhD

MACULAR DEGENERATION RESEARCH

INNOVATIVE AWARD

Does Aberrant Mechanotransduction Trigger RPE Atrophy in AMD?

Aparna Lakkaraju, PhD
The Lorraine Maresca Award
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

NEW INVESTIGATOR AWARDS

Functional Imaging of the Human Retina using Non-invasive Technology

Andrew Browne, MD, PhD
UNIVERSITY OF CALIFORNIA, IRVINE
Mentor: Krzysztof Palczewski, PhD

Understanding Bruch's Membrane and their Relevance to the RPE Pathology in AMD

Rosario Fernandez-Godino, PhD
SCHEPENS EYE RESEARCH INSTITUTE, MASSACHUSETTS EYE AND EAR, HARVARD MEDICAL SCHOOL

Advanced Imaging Studies in a Model of Type 3 Neovascular AMD

Tyson Kim, MD, PhD
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
Co-mentors: Douglas Gould, PhD, Aparna Lakkaraju & Dan Schwartz, MD

Origin, Heterogeneity, and Function of Immune Cells in Wet AMD Model

Jeremy Lavine, MD, PhD
NORTHWESTERN UNIVERSITY FEINBERG SCHOOL OF MEDICINE
Co-mentors: Harris R. Perlman, PhD & Amani Fawzi, MD

Functional Characterization of Genetic Regulatory Effects of AMD Risk Variants

Rinki Ratnapriya, PhD
BAYLOR COLLEGE OF MEDICINE
Mentor: John Timothy Stout, MD, PhD

New Signaling Pathway in Blood Vessels as Target for Wet AMD

Benjamin Thomson, PhD
NORTHWESTERN UNIVERSITY

Transcriptional Regulation of Cellular Organelle Function in the Retinal Pigment Epithelium

Mallika Valapala, PhD
INDIANA UNIVERSITY

POST-DOCTORAL FELLOWSHIP AWARDS

New Model to Tracking the Development of Reticular Pseudodrusen and AMD

Brittany Carr, PhD
UNIVERSITY OF BRITISH COLUMBIA (CANADA)
Fellowship Mentor:
Orson Moritz, PhD

CRISPR Genome Engineering in AMD Risk Alleles

Ya-Ju Chang, PhD
COLUMBIA UNIVERSITY MEDICAL CENTER
Fellowship Mentor:
Stephen Tsang, MD, PhD

Novel Antibody-based Agonist for Neovascular AMD

Rony Chidiac, PhD
UNIVERSITY OF TORONTO, FACULTY OF PHARMACY (CANADA)
Fellowship Mentor:
Stephane Angers, PhD

Addressing the Link Between Impairment in Phagosome Degradation and AMD

Antonio Escudero Paniagua, PhD
The Elizabeth Anderson Award
UNIVERSITY OF CALIFORNIA, LOS ANGELES
Fellowship Mentor:
David Williams, PhD

Understanding the Role of Inflammation in AMD

Sayan Ghosh, PhD
UNIVERSITY OF PITTSBURGH
Fellowship Mentor:
Debasish Sinha, PhD

Integrated Immunogenomics to Develop Translational Treatment for AMD

Michelle Grunin, PhD
HEBREW UNIVERSITY OF JERUSALEM (ISRAEL)
Fellowship Co-mentors:
Shai Carmi, PhD
Jonathan L. Haines, PhD,
CASE WESTERN RESERVE UNIVERSITY

Exploring the Role of Lipid Metabolism in AMD Pathogenesis

Rohini M. Nair, PhD
UNIVERSITY OF PENNSYLVANIA
Fellowship Mentor: Venkata Ramana Murthy Chavali, PhD

Ciliary Lipids in RPE Repair: A Novel Target for AMD

Ke Ning, MD
STANFORD UNIVERSITY
Fellowship Co-mentors:
Yang Sun, MD, PhD &
Vinit Mahajan, MD, PhD

Macular and Mid-Peripheral Specific iPSC-RPE Models to Discover Regional RPE Susceptibility in AMD

Davide Ortolan, PhD
NATIONAL EYE INSTITUTE, NIH
Fellowship Co-mentors:
Kapil Bharti, PhD &
Ruchi Sharma, PhD

Elucidating the Role of Metabolic Reprogramming in RPE Dysfunction and Inflammation in AMD

Daisy Shu, PhD
THE SCHEPENS EYE RESEARCH INSTITUTE, MASSACHUSETTS EYE AND EAR, HARVARD MEDICAL SCHOOL
Fellowship Mentor:
Magali Saint Geniez, PhD

Structure-based Development of HTRA1 Specific Inhibitors for AMD

Young Joo Sun, PhD
STANFORD UNIVERSITY
Fellowship Mentor:
Vinit Mahajan, MD, PhD

Replenishment of MicroRNA Using Extracellular Vesicles for Treatment of AMD

Yvette Wooff, PhD
THE AUSTRALIAN NATIONAL UNIVERSITY (AUSTRALIA)
Fellowship Mentor:
Riccardo Natoli, PhD

NATIONAL GLAUCOMA RESEARCH

STANDARD AWARDS

Mechanisms of Angle Development and Glaucoma

Revathi Balasubramanian, PhD
COLUMBIA UNIVERSITY MEDICAL CENTER

Deciphering the Local Effect of Glaucoma Risk Factors on Axonal Mitochondria

Romain Cartoni, PhD
The Thomas R. Lee Award
DUKE UNIVERSITY MEDICAL CENTER

Artificial Intelligence Approaches to Better Understand Genetic Contributions

Puya Gharahkhani, PhD
THE COUNCIL OF THE QUEENSLAND INSTITUTE OF MEDICAL RESEARCH (AUSTRALIA)
Co-Principal Investigators:
Stuart MacGregor, PhD
Alex W. Hewitt, PhD
MENZIES RESEARCH INSTITUTE TASMANIA
Maciej Trzaskowski, PhD
MAX KELSEN
David Mackey, MD
UNIVERSITY OF TASMANIA
Jamie E. Craig, PhD
FLINDERS MEDICAL CENTRE

The Biomechanical Phenotype of Normal-Tension Glaucoma

Michael Girard, PhD
SINGAPORE EYE RESEARCH INSTITUTE, SINGAPORE NATIONAL EYE CENTRE (SINGAPORE)
Co-Principal Investigators:
Aung Tin, MBBS, PhD &
Monisha E. Nongpiur, MBBS, PhD

Integrated Machine Learning Analysis of Biomarkers for Glaucoma Therapy

Pirro Hysi, MD, PhD
KING'S COLLEGE LONDON (UK)

In vivo Characterization of the Mechanical Properties of the Human Optic Nerve Head

Thao Nguyen, PhD
JOHNS HOPKINS UNIVERSITY
Co-Principal Investigator:
Harry A. Quigley, MD

Mapping Scleral Fibroblasts and Their Significance in Glaucoma

Ian Pitha, MD, PhD
JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

Potential Role for New Sensors of Elevated Eye Pressure in Models of Glaucoma

Michael Reber, PhD
UNIVERSITY HEALTH NETWORK (CANADA)

New Neuroprotective Genes Against Axonal Damage and Glaucoma

Matthew Veldman, PhD
MEDICAL COLLEGE OF WISCONSIN

Accurate Prediction and Detection of Glaucoma Progression Using Advanced OCT Imaging

Zhichao Wu, PhD
CENTRE FOR EYE RESEARCH AUSTRALIA LIMITED (AUSTRALIA)
Co-Principal Investigators:
Xavier Hadoux, PhD
Peter van Wijngaarden, MBBS, PhD
Flora Hui, PhD
Keith Martin, DM, FRANZCO

Validation of Novel OCT-based Imaging Tools for Noninvasive Monitoring

Robert Zawadzki, PhD
Dr. Douglas H. Johnson Award
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Co-Principal Investigator:
Pengfei Zhang, PhD

POST-DOCTORAL FELLOWSHIP AWARDS

Alterations of the Sleep-regulating Systems in Glaucoma

Ji Won Bang, PhD
NEW YORK UNIVERSITY SCHOOL OF MEDICINE
Fellowship Co-mentors: Kevin C. Chan, PhD & Joel Schuman, MD
Yuka Sasaki, PhD
BROWN UNIVERSITY

Hemodynamics and Biomechanics of the Lamina Cribrosa (LC)

Yi Hua, PhD
UNIVERSITY OF PITTSBURGH
Fellowship Mentor:
Ian Sigal, PhD

Mechanisms Controlling Aqueous Humor Drainage in Mice

Ester Reina-Torres, PhD
IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE (UK)
Co-mentors:
Darryl Overby, PhD
William Daniel Stamer, PhD,
DUKE UNIVERSITY

Investigating the Optic Nerve Head Remodeling in Glaucoma

Babak Safa, PhD
GEORGIA TECH RESEARCH CORPORATION
Fellowship Mentor:
Christopher Ross Ethier, PhD

Transcriptional Regulation of Nerve Cell Survival and Axon Regeneration

Kimberly Wong, PhD
CHILDREN'S HOSPITAL BOSTON
Fellowship Mentor:
Larry Benowitz, PhD

SPECIAL THANKS TO DONORS SUPPORTING ONGOING AWARDS

ALZHEIMER'S DISEASE RESEARCH

Investigating Neuropeptides as Biomarkers and Novel Therapeutics For Alzheimer's Disease

Becky Carlyle, PhD
This award is made possible by the support from The Luminescence Foundation, Inc.
MASSACHUSETTS GENERAL HOSPITAL

MACULAR DEGENERATION RESEARCH

Profiling of Immune Cell Subtypes in AMD Patients and Controls

Philip Ruzycski, PhD
The award is made possible by support from The Ivan Bowen Family Foundation
WASHINGTON UNIVERSITY IN SAINT LOUIS
Co-Principal Investigator:
Rajendra Apte, MD, PhD

A Novel Method for Treating Wet AMD Reversibly With Single Intraocular Injection

Shushen Wang, PhD
This award is made possible by the support of Dr. H. James and Carole Free
TULANE UNIVERSITY

Co-principal investigator and fellowship mentor institutions are listed if different than the PI.

Note: All grants will be awarded pending conclusion of contract negotiations.



Glaucoma Fast Track™ and Alzheimer's Fast Track™ attendees from 2019 conferences.

Broadening Diversity in Science

BrightFocus is committed to bringing together scientists from diverse backgrounds to foster creativity and innovation in addressing complex scientific challenges.

One of our new initiatives is to fund travel fellowships, a program that will provide under-represented minorities the opportunity to attend key research meetings, including our signature BrightFocus Fast Track conferences.

Fast Track brings promising young scientists together to collaborate with world-renowned experts in their field.

OUR WORLD CLASS SCIENTIFIC REVIEW COMMITTEES

comprised of renowned leaders in their fields, recommend new research opportunities for BrightFocus to advance our goal of defeating Alzheimer's, macular degeneration, and glaucoma. The following experts have served on each committee within the preceding five years.



BrightFocus grantees have received numerous prestigious awards over the years.



ALZHEIMER'S DISEASE RESEARCH

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BRIGHTFOCUS WORKS CLOSELY WITH NONPROFIT AND CORPORATE PARTNERS ON ISSUES OF COMMON CONCERN





Global Network for Alzheimer's

BrightFocus has worked with partners worldwide to advance research and provide public awareness of Alzheimer's disease including:

Belgium

Stichting Alzheimer Onderzoek

France

Fondation Vancre Alzheimer

Germany

Alzheimer Forschung Initiative e.V.

The Netherlands

Alzheimer Nederland

BRIGHTFOCUS THANKS OUR DONORS FOR THEIR GENEROSITY

toward our three scientific and public awareness programs: Alzheimer's Disease Research, Macular Degeneration Research, and National Glaucoma Research. The support of individual donors, family foundations, and corporate partners makes our work possible.

A wide range of contribution opportunities is available to accommodate resources and charitable goals. Each gift is important and needed to help us find a cure.

► Sowing the Seeds of Scientific Progress

Thanks to our early support, most researchers go on to receive government and industry grants that, on average, are **ten times larger** than the original BrightFocus award,

a **1,000% return** on investment.



BrightFocus is partnering on webinars providing Alzheimer's information to the public. Shown here are guest experts (clockwise from upper right): Dr. Tan, Dr. Byrd; Alzheimer's caregiver John Hobbs; and BrightFocus' Nancy Lynn.

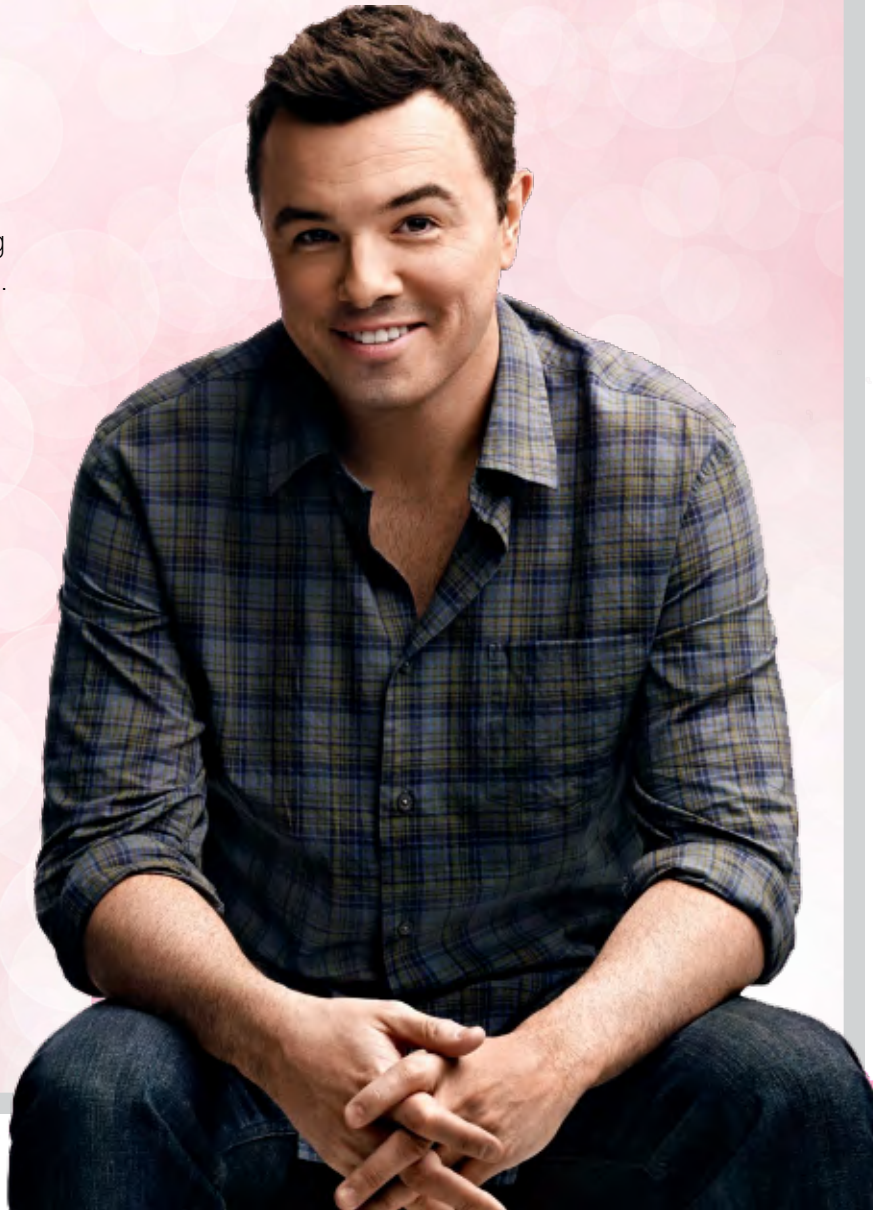
NeuroCare Live - A New Partnership

BrightFocus is proud to serve as the patient advocacy partner for PlatformQ Health's NeuroCare Live virtual programming about Alzheimer's disease. The first two of this year's three-part webinar series are available on the NeuroCare Live website, featuring Alzheimer's research leaders Goldie Smith Byrd, PhD, Wake Forest School of Medicine, and Zaldy Tan, MD, PhD, FACP, Cedars-Sinai Medical Center; and Nancy Lynn, BrightFocus' senior vice president for Strategic Partnerships, who talked about BrightFocus-funded research, information, and programs for families affected by Alzheimer's disease.

Seth MacFarlane Valentine's Concert

BrightFocus and MPTF (Motion Picture & Television Fund) held a special virtual Valentine's Day concert featuring the acclaimed, multi-talented Grammy-nominated vocalist Seth MacFarlane. The concert benefited both nonprofits working on research and care for diseases of aging.

The concert was live-streamed at Variety.com connecting communities, music and mission.



**EVERY
65
SECONDS**

**SOMEONE
DEVELOPS
ALZHEIMER'S
DISEASE.**

“Food is
medicine.”

Aarón Sánchez

An Evening of
BrightFocus
**MIND
SIGHT
CURE**

THANK YOU!

 Actor/Writer/Director William H. Macy	 Actor/Musician/Writer Peter Gallagher	 Director/Producer/Actor James Keach	 Award-Winning Chef Aarón Sánchez
 Dimitra Skondra, MD, PhD	 Ji Won Bang, PhD	 J Philip Verghese, PhD	
 Randall Bateman, MD	 Joel Braunstein, MD, MBA	 David Holtzman, MD	

**Leading Actors and Award-Winning Chef Join
BrightFocus Scientists at Virtual Gala**



Above: Maddy Dychtwald, Age Wave co-founder, and BrightFocus Board Member, interviews Dimitra Skondra, MD, PhD, University of Chicago about her research studying how diet impacts macular degeneration.

Leading actors William H. Macy and Peter Gallagher joined award-winning chef Aarón Sánchez for BrightFocus Foundation’s 6th Annual Gala. The virtual event featured leading scientists and advocates working with the foundation to drive some of the most exciting research around the globe to end diseases of mind and sight.

In a conversation led by acclaimed director/producer James Keach, Macy discussed his relationship with Alzheimer’s, both his father’s death and playing a character with dementia in the Showtime series *Shameless*. “It is important we shed light on the disease, ending stigma and increasing

research.” Gallagher shared memories of his mother, a scientist who worked with Jonas Salk on the polio vaccine, and had Alzheimer’s disease for nearly 20 years before she passed away.

Sánchez discussed the critical role of food in healthy aging and vision. “I’ve seen firsthand how disease robs people of their quality of life, and I am honored to be a part of helping all of us live longer and healthier lives.”

BrightFocus-funded scientists whose work is the forefront of saving mind and sight shared their bold research and results including:

- Randall Bateman, MD, and David Holtzman, MD, Washington University School of Medicine, Philip Verghese, PhD and Joel Braunstein, MD, MBA, C₂N Diagnostics, who are developing the first widely-available blood test to better diagnose Alzheimer’s;
- Dimitra Skondra, MD, PhD, at the University of Chicago, who is studying how diet impacts macular degeneration; and
- Ji Won Bang, PhD, of New York University, researching the role of sleep in glaucoma.





Brain Info  **LIVE** SM

BrightFocus Launches New Brain Health Education Series

BrightFocus' Brain Info LiveSM is a new virtual education series that provides free, entertaining, interactive brain health programs on an ongoing basis over two years to diverse and underrepresented communities across the United States.

Working collaboratively with local community leaders and partners, each live-streamed program will include culturally tailored information and resources and will generate a sustained dialogue that builds trust over time between community members, families, clinicians, researchers, and other health professionals.

Learn more at www.brightfocus.org/braininfo-live.

Images from Brain Info Live, including (top left) musician Ashley Campbell, daughter of the late Glen Campbell, legendary singer and musician who passed away from Alzheimer's; (bottom middle) a guest expert on Alzheimer's, Goldie Smith Byrd, PhD, Wake Forest School of Medicine and (bottom right) Lucina Rodriguez, Los Cenzontles Cultural Arts Academy.

THE DE LA CUESTA LEGACY SOCIETY: PHILANTHROPY HONORING LIVES WELL-LIVED

BrightFocus donors often have special connections to the scientific research programs they support. We are honored to share three of those stories with you.

“Our parents worked so hard and it is nice to see something come from their work that directly helps others.”

The de la Cuesta daughters



Reginald and Margaret de la Cuesta met and married soon after serving their nation with great distinction in World War II – Reginald in the U.S. Army at Okinawa, earning a Bronze Star, Purple Heart and two Oak Leaf Cluster Awards; Margaret, one of the first women in the U.S. Army Air Corps, teaching Morse code and procedure to radio operators and Signal Corps ground forces.

Together, through their tireless, hard work, they built a fulfilling life and a meaningful legacy. They started a successful business building homes and communities, were married for 61 years and raised a family spanning four generations in southern California. Margaret, who was warm and loved connecting people, worked side-by-side with Reginald until her

retirement. When she developed **Alzheimer's disease**, the family took turns as caregivers.

Due to the impact of Alzheimer's on their family, Reginald and Margaret added a Charitable Lead Trust in their estate plans, directing that the Trust's annual revenue would go to support Alzheimer's Disease Research, a program of BrightFocus Foundation. This transformational gift has provided a steady stream of funding and upon maturation, is expected to have provided \$10.7 million to significantly advance Alzheimer's research and provide expert information on this heartbreaking disease.

BrightFocus Foundation is pleased to announce the creation of the de la Cuesta Legacy Society, recognizing the historic impact of the de la Cuesta family's generosity. Daughters

Pamela, Roberta, and Regina, four grandchildren, and three great grandchildren are proud of their parents and pleased that BrightFocus is recognizing their benefaction. The newly-named Society shares the family's common bond of philanthropy to provide for the needs of future generations.

According to the de la Cuesta daughters, "Our parents worked so hard and it is nice to see something come from their work that directly helps others. We are so proud of them and we are hopeful for the work of BrightFocus Foundation and that their research is able to find the causes of Alzheimer's disease and change lives in the future."

de la Cuesta

LEGACY SOCIETY

HOPE FOR A CURE FOR MACULAR DEGENERATION



**“A cure is in the hands
of research and we all
need to support them in
any way we can.”**

Tuti DeMaagd

Tuti and her husband, Pete DeMaagd, longtime residents of Grand Rapids, MI, moved to the small town of Douglas along Lake Michigan after retirement because they loved the beach community where everyone knows each other’s name.

Pete was a reporter for the Grand Rapids Press where he had a column called “Pete’s Day” and together they wrote a weekly column as restaurant reviewers entitled “Dining Out with Pete and Tuti.” Tuti also worked for many years for the superintendent of the local public school system. She loved to entertain, play tennis and be active in her community including serving on the Grand Rapids Community Council.

Following Pete’s passing a few years ago, Tuti now lives with her dog, Simone Suzette, a silver mini-poodle, the fourth mini-poodle

she has had. Tuti also has the loving support of nearby friends and advocates.

In January 2021, she was diagnosed with macular degeneration. Tuti is now taking vitamin supplements and has new corrective glasses. She has also stopped driving.

She has been supporting Macular Degeneration Research ever since her diagnosis. “I believe in the power of first impressions and the staff of Macular Degeneration Research at BrightFocus Foundation have made a great impression on me. They keep me informed on the positive side of research and I listen to the monthly Chats,” said Tuti. “Surely, we all hope for a cure. A cure is in the hands of research and we all need to support them in any way we can.”

BREAKTHROUGH SCIENCE CAN CURE GLAUCOMA



“It is important that we have been able to combat and treat the effects of glaucoma to provide people a chance to keep their eyesight.”

Vince Scarafino

Vince Scarafino of Canton, Michigan devoted his distinguished career to the Ford Motor Company after graduating from the University of Michigan with a degree in mechanical engineering. He spent over three decades working in computer science to improve vehicle emissions and oversaw technology improvements based on crash simulations. “I am proud to have pushed the envelope and helped to make a contribution to a safer world,” said Vince. Retired for over 10 years now, he continues to dabble with computers, is an avid car buff, and enjoys spending time with his nieces and nephews.

Vince has long known the impact of vision loss. He was first diagnosed with glaucoma in his 30s and his eyesight was managed with treatment, but after 30 years, the eye drops were no longer effective. After laser surgery to reduce his eye pressure, Vince had drainage tubes inserted in his eyes. Following cataract surgery last year, he now

enjoys 20/20 vision without the need for corrective lenses.

When first diagnosed, Vince researched charitable organizations working on glaucoma and seeking a cure for the disease before becoming a donor to National Glaucoma Research (NGR), a program of BrightFocus Foundation.

“It’s great that there was an alternative to my treatment. Without scientific breakthroughs the drainage tubes wouldn’t have existed,” said Vince. “It is important that we have been able to combat and treat the effects of glaucoma to provide people a chance to keep their eyesight.

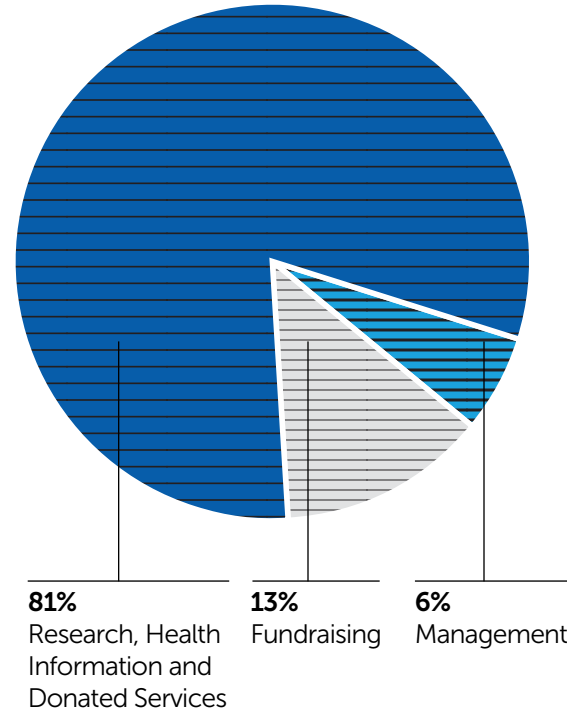
Thanks to donors such as Vince, NGR continues to advance groundbreaking ideas, including recent support toward developing an implantable wireless device to help physicians with new ways to diagnose and monitor glaucoma.

FINANCIAL HIGHLIGHTS

INVESTING IN HOPE

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



A complete copy of financial statements audited by Marcum, LLP is available upon request from the BrightFocus Foundation, 22512 Gateway Center Drive, Clarksburg, MD 20871 or on our website at www.brightfocus.org.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION	
As of March 31, 2021 (in thousands of dollars)	
ASSETS	
Cash and Investments	\$47,856
Charitable Trusts and Bequests Receivable	9,778
Rental Property	3,719
Fixed Assets, Net	4,112
Other Assets	1,012
TOTAL ASSETS	\$66,477
LIABILITIES	
Accounts Payable and Other Liabilities	\$948
Grants Payable	31,619
Charitable Gift Annuities	875
TOTAL LIABILITIES	33,442
NET ASSETS	
Without Donor Restriction	15,708
With Donor Restriction	17,327
TOTAL NET ASSETS	33,035
TOTAL LIABILITIES AND NET ASSETS	\$66,477

CONSOLIDATED STATEMENT OF ACTIVITIES	
For the Fiscal Year Ended March 31, 2021 (in thousands of dollars)	
SUPPORT AND REVENUE	
Contributions and Grants	\$33,186
Bequests	14,333
Donated Services	10,280
Investment Income	9,591
Rental & Other Income	2,519
TOTAL SUPPORT AND REVENUE	69,909
EXPENSES	
Program Services	
Research	30,690
Health Information Services	19,595
Total Program Services	50,285
Supporting Services	
Fundraising	8,393
Management and General	3,589
Total Supporting Services	11,982
TOTAL EXPENSES	62,267
CHANGE IN NET ASSETS	\$7,642

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